

**Reconstruction and modernization of the ‘Ion
Creangă’ Secondary School, plot no.
9201110.378, with the addition of ancillary
buildings, located in Ungheni municipality,
151 Ștefan cel Mare și Sfânt Street**

(name of the project)

Form No. 7
WinCmeta

LOCAL QUOTATION No. 2-2-9
Telephone and signalling systems. Block B (2510 - TS)

Prepared at current prices:

No. No.	Symbols, standards and resource code	Works and expenditure	Unit of measureme nt	Quantity as per project data	Estimated value, lei	
					Per unit of measure incl. wages	Total incl. salary
1	2	3	4	5	6	7
		1. Construction works				
1	RpEJ08A	Excavation of trenches up to 5 cm deep in walls of 5x50 cm brickwork	m	240.00		
2	RpEJ09D	Filling of grooves in walls up to 50 cm ²	m	240.00		
3	RCsB29F	Drilling through-holes in brick and stone masonry using a diamond core drill with a diameter of: 70 mm, L=70 mm – mounting sleeves Labour coefficient = 0.6300 Materials coefficient = 0.6300 Equipment coefficient = 0.6300	pcs	70.00		
4	RCsB29C	Drilling through-holes in brick and stone masonry using a diamond core drill with a diameter of: 40 mm Lmed = 200 mm Labour coefficient = 1.8000 Materials coefficient = 1.8000 Equipment coefficient = 1.8000	pcs	30.00		
5	IzD09A applicative	Marking of panels with paint using a stencil in accordance with the markings in the project	pcs	3.00		
		<i>Total</i>	lei			
		<i>Social security</i>	24 %			
		<i>Transport costs</i>	%			
		<i>Procurement and warehousing</i>	%			
		<i>Total</i>				
		<i>Overhead costs</i>	%			
		<i>Total</i>				
		<i>Budget surplus</i>	%			
		Total construction works Including wages				
		2. Installation works				
		2.1. Cabling and accessories				
6	08-02-396- 10	Perforated galvanised metal handrail with a cover, designed for installation	100 m	4.08		

1	2	3	4	5	6	7
		on tie rods or suspension brackets, length 3 m				
7	supplier price	Galvanised metal gutter, non-perforated, with cover, cross-section 200x50(h) mm	linear metre	204.00		
8	Supplier price	90° horizontal elbow with cover for galvanised metal gutter, perforated, cross-section 200x50(h) mm	pcs	6.00		
9	Supplier price	T-type horizontal jointing fitting with cover for galvanised metal guttering, 200x50(h) mm	pcs	4.00		
10	Supplier price	Galvanised metal gutter, non-perforated, with cover, cross-section 50x50(h) mm	linear metre	204.00		
11	Supplier price	90° horizontal elbow with cover for galvanised metal gutter 50x50(h) mm	pcs	6.00		
12	Supplier price	T-type horizontal jointing fitting with cover for galvanised metal guttering 50x50(h) mm	pcs	4.00		
13	supplier price	Galvanised steel M8x60 mm mounting plug for installing the suspension rod	pcs	408.00		
14	supplier price	Threaded steel rod, strength class 5.8, galvanised, M8x1000 mm, DIN: 975	pc	408.00		
15	supplier price	M8 galvanised hexagonal nut, DIN: 934	pcs	408.00		
16	Supplier price	Galvanised Grover type A, M12, DIN: 127A	pcs	408.00		
17	supplier price	Bracket for suspended mounting of 200 mm wide gutter	pcs	102.00		
18	supplier price	Bracket for suspended mounting of 50 mm wide guttering	pcs	102.00		
19	Supplier price	Connector for metal guttering, h=50 mm	pcs	272.00		
20	08-02-409-1	Vinyl-plastic pipe for use on existing structures, on walls and columns, secured with clamps, diameter up to 25 mm	100 m	41.40		
21	supplier price	Corrugated PVC pipe with probe, crush resistance 750 N, d = 20 mm	linear metre	4,140.00		
22	08-02-390-1	Plastic ducts with cover, cross-section 25x16 mm, including all necessary fittings (elbows, plugs, tees, crosses, etc.)	100 m	3.70		
23	08-02-152-3	Metal cable structures: welded construction	t	0.025		
24	08-02-412-1	Insertion of conductors into installed metal pipes and conduits: the first single-strand or multi-strand conductor in a common braid, with a cross-sectional area of up to 2.5 mm²	100 m	7.90		
25	supplier price	8-fibre optical fibre cable, SM, OS2, single-mode 9/125 ITU-T G.652.D LCS OS2 LSZH	linear metre	540.00		
26	supplier price	Fire alarm cable with solid copper conductors, HI1 cross-linked	linear metre	250.00		

1	2	3	4	5	6	7
		polymer compound insulation (), conductors twisted in pairs, aluminium foil screen, halogen-free (LSZH) insulation, cable insulation integrity FE180 (tested to DIN VDE 0472 Part 814 / IEC 60331), system integrity E30 (tested to DIN 4102 Part 12), Un=225 V, with 1 pair, cross-section 0.8 mm ²				
27	08-02-412-2	Insertion of conductors into installed metal conduits and hoses: the first single-core or multi-core conductor in a common braid, total cross-section up to 6 mm ²	100 m	33.50		
28	08-02-398-1	Conductor in cable trays, cross-section up to 6 mm ²	100 m	74.75		
29	supplier price	Shielded cable, with solid copper conductors of type UTP Cat. 5e 4x2x24AWG, type ng(A)-LSLTx, in accordance with STAS 31565-2012	linear metre	10,675.00		
30	supplier price	Copper cables with halogen-free, extruded solid dielectric insulation, low smoke emission and increased flame propagation delay, for voltages of 0.6/1.0 kV, complying with the requirements of DIN VDE 0276-604:2008-02; HD 604 S1+A1+A2+A3 :2005, IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2, IEC 61034-2, type N2XH-J, cross-section 3x1.5 mm ²	linear metre	150.00		
		<i>Total</i>	lei			
		Total Wiring and accessories Including salary				
		2.2. Telecommunications system				
31	10-06-037-05	19" 15U wall-mounted telecommunications and networking rack cabinet	pc	1.00		
32	10-06-037-04	19" RACK-type floor-standing telecommunications and networking cabinet	pcs	2.00		
33	10-04-030-04	Additional installation of parts in panels: Blank panels	pcs	12.00		
34	10-04-030-04	Additional installation of components in panels: 32U vertical cable management	pcs	4.00		
35	10-04-066-06	Block of 4 top-mounted fans with environmental monitoring (temperature and humidity sensors)	pcs	2.00		
36	10-08-003-03	Power supply and control unit – 19" UPS	pcs	3.00		
37	10-04-030-04	Additional installation of components in racks: PDU (Power Distribution Unit)	pcs	3.00		
38	08-03-591-9	Flush-mounted socket, for enclosed installation, including junction box for fitting appliances	100 pcs	0.03		

1	2	3	4	5	6	7
39	supplier price	Flush-mounted socket for concealed installation with earth connection, IP20, 16A, 230V, compatible with UPS or PDU	pcs	3.00		
40	10-04-066-04	19" 1U modular patch panel	pcs	9.00		
41	10-04-030-04	Additional installation of components in panels: Perforated cable organiser with cover, horizontal	pcs	20.00		
42	10-04-030-04	Additional installation of components in panels: Shelf for 19" telecoms cabinet	pcs	6.00		
43	10-04-066-04	ODF Panel (Cross FO)	pcs	3.00		
44	10-04-100-04	Termination and connection of cables (conductors) in wired sound systems, cable cross-section: up to 6 mm ² – LC duplex adapter	10 pcs	4.80		
45	10-04-100-04	Cutting and connecting cables (conductors) in wired distribution equipment, cable cross-section: up to 6 mm ² – LC / SM duplex fibre optic pigtail	10 pcs	5.00		
46	10-02-051-01	Cable connection bridges, length: up to 6 m	100 pcs	2.59		
47	10-04-066-04	Transceiver	pcs	6.00		
48	10-04-100-04	Cable (conductor) stripping and connection: cable cross-section up to 6 mm ² – RJ-45 FTP Cat. 5e connector	10 pcs	12.00		
49	10-04-066-07	Wall-mounted fitting: RJ-45 socket with mounting box	pcs	70.00		
50	10-02-016-04	Access switch	pcs	7.00		
51	10-08-003-04	Ultrasound devices: Wi-Fi access point	pcs	14.00		
		<i>Total</i>	lei			
		Total Telecommunications system Including salary				
		2.3. Video surveillance				
52	10-04-100-04	Termination and connection of cables (conductors) in wired broadcasting equipment, cable cross-section: up to 6 mm ² – Cat. 5e RJ-45 connector	10 pcs	3.00		
53	10-04-067-23 installed	Video surveillance device – CCTV camera	pcs	24.00		
54	10-08-002-06 applied	Mounting bracket for video camera installation	pcs	24.00		
55	10-04-030-02 applied	Memory card installation	pcs	24.00		
56	10-04-101-07	Subscriber equipment – External microphone	pcs	6.00		
		<i>Total</i>	lei			
		Total Video Surveillance Including salary				

1	2	3	4	5	6	7
		2.4. Call system for staff in toilets for people with disabilities				
57	10-04-101-13	Subscriber equipment and miscellaneous equipment: Relay control unit and transmission of dry contact status via the local Ethernet network	pc	5.00		
58	10-08-003-03	Devices – power supply and control unit	pcs	5.00		
59	08-03-591-1	Call button	100 pcs	0.05		
60	08-03-591-2	Reset button	100 pcs	0.05		
61	08-03-593-10	Wall-mounted indicator lights	100 pcs	0.05		
		<i>Total</i>	lei			
		Total Toilet call system for staff assisting people with disabilities Including salary				
		2.5. School bell system				
62	10-08-016-01	Single-sided electric clocks for rooms: wall-mounted	pcs	10.00		
63	08-03-572-3	Control unit in cabinet or distribution point (cabinet) style, wall-mounted, height and width, mm, up to 600×600	pc	1.00		
64	08-01-080-1	Miniature circuit breakers (MCB) 1P	pcs	5.00		
65	08-01-080-2	Residual current circuit breaker (RCBO) 1P+N	pc	1.00		
66	08-03-529-1	DC contactor up to 160 A	pc	1.00		
67	10-01-001-13 fitted	Various accessories mounted in the panel using bolts, nuts and washers 12-module connection busbar	pc	1.00		
68	10-02-051-04	Cable termination and connection – Terminal block for DIN rail mounting	100 pcs	0.30		
69	10-02-051-04	Installation, cable connection - Terminal cover	100 pcs	0.06		
70	10-04-101-07	Subscriber equipment – Bell alarm	pcs	5.00		
		<i>Total</i>	lei			
		Total School bell system Including salary				
		<i>Total</i>	lei			
		<i>Social insurance</i>	24 %			
		<i>Transport costs</i>	%			
		<i>Procurement and warehousing</i>	%			
		<i>Total</i>				
		<i>Overhead costs</i>	%			
		<i>Total</i>				
		<i>Budget surplus</i>	%			
		Total installation work Including wages				

1	2	3	4	5	6	7
		3. Machinery and equipment 3.1. Telecommunications system				
71	Supplier price	15U wall-mounted telecommunications and networking cabinet, 600x600 mm, 19", black, unassembled, with fans, with perforated front and rear doors; tool-less mounting, with 2 vertical cable management systems	set	1.00		
72	supplier price	19" 32U floor-standing telecoms and networking rack, 600x600 mm, black, unassembled (set includes legs and castors), with perforated front and rear doors; with at least 6 x blank panels, featuring tool-less mounting, with 2 vertical cable management systems, fitted with a 4-fan unit on top with environmental monitoring (temperature and humidity sensors)	set	2.00		
73	supplier price	Uninterruptible power supply (UPS) with battery units. Technology: online / line-interactive. Power: 2200 VA / 1980 W. Runtime: min. 5–7 minutes at maximum load. Protection: overload, overvoltage, undervoltage. Interfaces: output: min. 6 x IEC C13 (10 A), input: min. 1 IEC C20 (16 A) sockets; Single-phase 220 V ... 240 V. Mounting: 19" rack	pcs	2.00		
74	supplier price	Uninterruptible power supply (UPS) with battery units. Technology: online / line-interactive. Power: 1150 VA / 770 W. Runtime: min. 5–7 minutes at maximum load. Protection: overload, overvoltage, undervoltage. Interfaces: output: min. 6 x IEC C13 (10 A), input: min. 1 IEC C20 (16 A) sockets; Single-phase 220 V ... 240 V. Mounting: 19" rack	pc	1.00		
75	supplier price	PDU (Power Distribution Unit), 1U, 16A, 200–240V, 50/60Hz, Output: min. 6 x CEE 7/3, Input: 1 x IEC C19/C20 UPS plug, horizontal mounting for 19" rack, with safety button	pcs	3.00		
76	supplier price	Modular Cat5e UTP patch panel, fully equipped with 24xRJ45 modules, 19", 1U	pcs	9.00		
77	Supplier price	Perforated cable organiser with cover, horizontal, 19", 1U	pcs	20.00		
78	Supplier price	Shelf for 19" telecoms cabinet	pcs	6.00		
79	Supplier price	19" ODF Panel, 1U	pcs	3.00		

1	2	3	4	5	6	7
80	Supplier price	LC duplex adapter	pcs	48.00		
81	Supplier price	LC / SM duplex fibre optic pigtail	pcs	50.00		
82	Supplier price	LC/SM Duplex Fibre Patch Cord, L=1.0 m	pcs	14.00		
83	Supplier price	LC/SM duplex fibre patch cord, L=3.0 m	pcs	10.00		
84	Supplier price	Direct Attach Cable 1 m, SFP+ 10G, compatible with access switches	pcs	5.00		
85	Supplier price	Patch Cord, L=0.5 m, copper, UTP Cat. 5e	pcs	200.00		
86	Supplier price	Patch cord, length 1.0 m, copper, UTP Cat. 5e	pcs	20.00		
87	Supplier price	Patch cable, length 3.0 m, copper, UTP Cat. 5e	pcs	10.00		
88	Supplier price	SFP+ 10 Gbps 1310 nm 10 km transceiver, compatible with access switches and aggregation switches	pcs	6.00		
89	Supplier price	Cat.5e RJ45 module, for RJ45 sockets	pcs	120.00		
90	supplier price	RJ-45 socket with mounting box for 1 RJ45 Cat.5e module	pcs	20.00		
91	supplier price	RJ-45 socket with mounting box for 2 RJ45 Cat.5e modules	pcs	50.00		
92	supplier price	Type 1 access switch, with 48 auto-negotiating 1 Gbps RJ-45 ports + min. 2 SFP+ 10 Gbps ports; min. 1 GB DDR3; 512 MB NAND flash; min. throughput 130 Mpps; Switching capacity 176 Gbps; MAC address table size min. 16k; VLAN table min. 4K; QoS, SSL, RSTP, BPDU, LLDP, LACP, CLI, ACL, SNMP, DHCP-Snooping, IPv4 and IPv6 management, Telnet/SSH; 19", 1U; Power consumption: max. 120 W, model HPE Networking Instant On Switch 48p Gigabit 2p 10GBT 2p SFP+ 1960 (JL808A) or equivalent in terms of specifications	set	2.00		
93	supplier price	Type 2 access switch, with 24 auto-negotiating 1 Gbps RJ-45 ports + min. 2 SFP+ 10 Gbps ports; min. 1 GB DDR3; 512 MB NAND flash; min. throughput 95 Mpps; Switching capacity 128 Gbps; MAC address table size min. 16k; VLAN table min. 4K; QoS, SSL, RSTP, BPDU, LLDP, LACP, CLI, ACL, SNMP, DHCP-Snooping, IPv4 and IPv6 management, Telnet/SSH; 19", 1U; Power consumption: max. 80 W, model HPE Networking Instant On Switch 24p Gigabit 2p 10GBT 2p SFP+ 1960 (JL806A) or equivalent in terms of specifications	set	1.00		

1	2	3	4	5	6	7
94	supplier price	Type 3 access switch, with 24 RJ-45 POE+ auto-negotiating 1 Gbps ports + min. 2 SFP+ 10 Gbps ports; min. 1 GB DDR3; 512 MB NAND flash; min. throughput 95 Mpps; Switching capacity 128 Gbps; MAC address table size min. 32k; VLAN table min. 4K; QoS, SSL, RSTP, BPDU, LLDP, LACP, CLI, ACL, SNMP, DHCP-Snooping, IPv4 and IPv6 management, Telnet/SSH; PoE budget: 370 W; 19", 1U; Power consumption: max. 480 W, model HPE Networking Instant On Switch 24p Gigabit CL4 PoE 2p SFP+ 370W 1960 (JL807A) or equivalent with similar specifications	set	4.00		
95	Supplier price	Wi-Fi access point; with the following basic specifications (when determining a similar device, all specifications for this type of equipment must be taken into account), wall and ceiling mount for indoor use; min. 1 x RJ-45 1/2.5 Gbps PoE (802.3at/af); number of integrated radio modules – min. 3, 2.4/5.0/6.0 GHz; aggregate wireless speed – min. 10.0 Gbps; channel bandwidth 20/40/80/160/320 MHz; integrated omni-directional antennas: 4 dBi for 2.4 GHz, 5.5 dBi for 5 GHz, 5.5 dBi for 6 GHz; Up to 8 SSIDs; 802.11 n/ac/ax/be standards, Wi-Fi 4/5/6/6E/7; features: DL/UL MU-MIMO, OFDMA, BSS colouring, TWT, WPA3; capable of being managed by network and wireless controllers. Ubiquiti Unifi U7 Pro Wi-Fi access point or similar in terms of specifications	set	13.00		
96	supplier price	Wi-Fi access point; wall- and ceiling-mounted, outdoor, dual-band, manageable via UniFi Network Controller; 1 × Gigabit Ethernet RJ-45 port, 802.3af PoE power supply, max. power consumption 9 W; IPX6-rated outdoor housing, operating temperature -30...+60 °C; supports IEEE 802.11a/b/g/n/ac/ax standards, such as the UniFi U7 outdoor model or similar based on specifications	set	1.00		
97	supplier price	IP telephone with the following key features: 2 SIP lines, HD voice, LCD screen (min. 128x48), auto-provisioning via FTP / TFTP / HTTP / HTTPS / DHCP OPT66 / SIP PNP / TR-069, Web- based management	pcs	9.00		

1	2	3	4	5	6	7
		interface, Protocol: SIP 2.0 over UDP / TCP / TLS, RTP / RTCP / SRTP, STUN, LLDP, 802.1x, SNTP; Power Input: PoE 802.3.af, type X1SP or similar, depending on specifications				
		<i>Total</i>	lei			
		Total Telecommunications system Including salary				
		3.2. Video surveillance				
98	Supplier price	RJ45 Cat.5e module	pcs	30.00		
99	supplier price	Indoor video camera, min. 2688 x 1520, 1/1.8" CMOS, IR = 30 m, 2.8/4.0 mm, 802.3 af Class 3, max. 9 W, with built-in microphone, with the option to store data on a NAS, with micro SD slot, model DS-2CD2147G3-LI(S2U)Y or similar in terms of specifications	pcs	18.00		
100	supplier price	Outdoor video camera, min. 2688 x 1520, 1/1.8" CMOS, IR = 40 m, 2.8/4.0/6.0 mm, 802.3 af Class 3, max. 7.5 W, with built-in microphone, with the option to store data on a NAS, with micro SD slot, model DS-2CD2047G2-L(U) or similar in terms of specifications	pcs	6.00		
101	supplier price	64 GB Micro SD memory card, Class 10 UHS-I, R/W 100/20 MB/s	pcs	24.00		
102	Supplier price	External microphone for installation in the toilet block, POE 2.4 W, 16 kHz, omnidirectional, model DS-UAC-M1P or similar in terms of specifications	pcs	6.00		
		<i>Total</i>	lei			
		Total Video Surveillance Including salary				
		3.3. Call system for staff in toilets for people with disabilities				
103	Supplier price	Relay control unit and dry contact status transmission via local Ethernet network, supply voltage – 12 V, IP40, dimensions 162 x 103 x 35 mm, operating humidity – up to 80%	pcs	5.00		
104	Supplier price	12V, 2A uninterruptible power supply in a plastic casing with battery	pcs	5.00		
105	Supplier price	Call button in an IP44-rated plastic housing, dimensions 82 x 82 x 18 mm, operating humidity up to 80%, fitted with a second call button with a 1.0 m call cable	pcs	5.00		
106	Supplier price	Call reset button for wired systems in an IP44 plastic housing, 12 V, dimensions 82 x 82 x 45 mm, with mounting box included in the set, operating humidity – up to 80%	pc	5.00		

1	2	3	4	5	6	7
107	Supplier price	Three-colour LED lamp (red, blue and green) for corridors (signal light and sound) IP44, 12 V, dimensions 82 x 82 x 64 mm, brightness >= 2000 mCd, sound level >= 55 dB, operating humidity – up to 80%	pcs	5.00		
		<i>Total</i>	lei			
		Total Toilet call system for staff assisting people with disabilities Including salary				
		3.4. School bell system				
108	Supplier price	Battery-operated mechanical wall clock with a dial diameter of 300 mm	pcs	10.00		
109	Supplier price	Plastic distribution board with door, surface-mounted, with a capacity of 36 (2x18) modules, IP65, dimensions 460 x 448 x 160 mm, fitted with a padlock and DIN, N and PE rails	pc	1.00		
110	supplier price	Miniature circuit breakers (MCBs), ETIM classification – EC000042, standards IEC/EN 60898-1 Icn=6.0 kA, IEC 60947-2 Icu=6.0 kA, 1P, tripping characteristic: C, In=6 A, Un=230/400 V, 50–60 Hz	pcs	5.00		
111	supplier price	Residual current circuit breaker (RCBO), ETIM classification - EC000905, IEC/EN 61009 standards, Icu=10 kA, 1P+N, type A, tripping characteristic: C, In=40 A, 30 mA, Un=230 V, 50–60 Hz	pc	1.00		
112	supplier price	Modular contactor 2P, 24 V AC/DC, 2NO	pc	1.00		
113	Supplier price	12-module connection rail, L=211 mm, 100 A, 500 V	pc	1.00		
114	supplier price	DIN rail-mounted terminal block, 2-way, 26 AWG, 12 AWG, 4 mm², with screw	pcs	20.00		
115	supplier price	DIN-rail-mounted terminal block, 2-way, 26 AWG, 12 AWG, 4 mm², with screw	pcs	10.00		
116	supplier price	Terminal cover	pcs	6.00		
117	Supplier price	230V bell alarm, 85dB, IP44	pcs	5.00		
		<i>Total</i>	lei			
		Total School bell system Including salary				
		<i>Total</i>	lei			
		<i>Supply and storage</i>	%			
		Total machinery and equipment Including wages				
		4. Commissioning and start-up works				
		4.1. Telecommunications system				

1	2	3	4	5	6	7
118	10-06-068-16	Adjustment of synchronous digital transmission systems. Adjustment of the control and switching system: Programming of the network element and adjustment of its operation (access switch)	pcs	7.00		
119	10-06-068-11	Configuration of synchronous digital transmission systems: Configuration of Wi-Fi access point	pcs	14.00		
		<i>Total</i>	lei			
		Total Telecommunications system Including salary				
		4.2. Video surveillance				
120	1-10-001-1	Collection and processing of information signals from protection and automation devices for electrical and process systems	signal	30.00		
		<i>Total</i>	lei			
		Total Video surveillance Including salary				
		4.3. Staff call system in toilets for people with disabilities				
121	1-10-001-1	Collection and processing of information signals from protective devices and automatic control systems for electrical and technological processes	signal	25.00		
		<i>Total</i>	lei			
		Total Toilet call system for staff assisting people with disabilities Including salary				
		4.4. School bell system				
122	1-10-001-1	Collection and processing of information signals from protective devices and automatic control systems for electrical and technological systems	signal	5.00		
123	1-03-001-1	Single-pole switch with electromagnetic, thermal or combined trip mechanism	pcs	5.00		
124	1-03-001-2	Circuit-breaker with residual current protection and protective disconnection device	pc	1.00		
125	1-12-021-1	Switchgear, voltage up to 1 kV (for power circuits) – Modular contactor	1 test	1.00		
		<i>Total</i>	lei			
		Total School bell system Including salary				
		<i>Total</i>	lei			
		<i>Social insurance</i>	24 %			
		<i>Total</i>				
		<i>Overheads</i>	%			
		<i>Total</i>				
		<i>Budget surplus</i>	%			

1	2	3	4	5	6	7
		Total commissioning and start-up works Including wages				
		Total	lei			
		Total estimate: Including wages				

Prepared by

(position, signature, surname, first name)

Verified

(position, signature, surname, first name)