

**Objective:** Major repair and modernisation works on immovable property with cadastral numbers: 2901303.331.01-study block, 2901303.331.03-dormitory, 2901303.331.04-education and teaching building, with the development of the adjacent territory, located in Cimislia

**Subject:** 2-1-9\_SPA\_Study block

## Local estimate No. 2-1-9

Prepared in current prices

Estimate: Construction works						
No	Symbol standards and Resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		<b>Chapter 1. Demolition/dismantling works</b>				
1.1	RCsB30D k=3.7	Drilling through holes in concrete structures using a diamond core drilling machine with a diameter of: 50 mm. (k=3.7 for cumulative operations)	pcs	4		
1.2	RpEJ09A	Filling holes in walls with plaster mortar.	pcs	4.0		
1.3	RpED20A k=0.2	Removing electrical cables from Cat.5e UTP copper cable	m	1,500		
1.4	10-04-067-23 k=0.5	Removal of video surveillance cameras	pcs	19		
		<b>TOTAL Chapter 1. Demolition/dismantling works</b>				
		<b>Including salary</b>				

Total	
Social security	24.0000%
Total	
Transport expenses	%
Total	
Storage expenses	%
Total	
Overhead expenses	%
Total	
Estimated profit	%

<b>Total Estimate excluding VAT</b>	
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Estimate: Installation works						
No	Symbol standards and resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		<b>Chapter 1. Automatic security signalling</b>				
2.1	10-08-001-01	Receiving devices: "ПЧ" receiving, control and start-up devices. Concentrator: base block for 10 beams (control device for the security and alarm system, 10 zones, type (DSC HS2016) or analogue).	pcs	1		
2.2	10-01-039-06	Miscellaneous parts (LED keypad, type (DSC HS2LCD) or similar)	pcs	1		
2.3	10-04-101-04	Subscriber equipment and miscellaneous: Subscriber transformer, intensity, up to 25 W, mounted: on brick or concrete wall. (Transformer 16.5VAC/40VA).	pcs	1		
2.4	08-01-121-1	Stationary acid battery, type: C-1, CK-1 (UPS backup power supply =7AH).	pcs	1		

2.5	08-01-121-1	Stationary acid battery, type: C-1, CK-1 (12V, 7AH, 1270BATT rechargeable batteries).	pcs	2		
2.6	10-08-003-02	Ultrasound devices: monoblock ultrasound device (IP communication module (TL280E Ethernet) or analogue).	pcs	1		
2.7	10-08-003-4	Ultrasound devices: converter (ATS-100 radio transmitter or GSM communication module)	pcs	1		
2.8	10-08-002-05	Automatic "OC" alarms: contact-impact, non-contact electromagnetic or piezoelectric, installed on glass (Motion detector)	pcs	1		
2.9	10-08-002	Automatic "OC" alarms: contact-impact, without electromagnetic or piezoelectric contact, installed on glass (combined broken glass + motion detector)	pcs	3		
2.10	10-08-002-04	Automatic "OC" alarms: contact, magnetic contact when opening windows, doors (magnetic contact detector).	pcs	8		
2.11	10-08-003-02	Ultrasound devices: monoblock ultrasound device (optical-acoustic alarm device, 12V).	pcs	1		
2.12	08-02-412-1	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, cross-section up to 2.5 mm <sup>2</sup> .	100 m	7.94		
2.13		BBГнг cable - FRLS 3x1.5 mm <sup>2</sup>	m	17		
2.14		Shielded cable with capacity. CORэ 6x0.22 mm	m	460		
2.15		Shielded cable with capacity. CORэ 8x0.22 mm	m	17		
2.16	08-02-409	Vinyl plastic pipe for installed structures, on walls and columns, fastened with clamps, diameter up to 25 mm.	100 m	1		
2.17		Polyvinyl chloride pipe D=16 mm	m	100		
2.18	CL18A	Various metal structures made of rolled profiles, sheet metal, corrugated sheet metal, concrete steel, pipes for supports or coverings, totally or partially embedded in concrete. (Fastening material).	kg	4		
		<b>TOTAL Chapter 1. Automatic security signalling</b>				
		<b>Including salary</b>				
		<b>Chapter 2. Access control system</b>				
2.19	10-02-016-01	Devices (Control controller, RJ-45 (TCP/IP), in box)	pcs	1		
2.20	10-01-039-06	Reader	pcs	2		
2.21	CK33C	Electromagnetic lock, 12V, 500 mA, 350 kg with magnet detector (installation only)	pcs	1		
2.22	CK33A	Door damper (installation only)	pcs	1		
2.23	10-08-002-04	Automatic "OC" alarms: contact, magnetic contact when opening windows, doors (magnetic detector).	pcs	1		
2.24	08-01-121-1	Stationary acid battery, type: C-1, CK-1 (SAR-12/3A backup power supply).	pcs	1		
2.25	08-01-121-1	Stationary acid battery, type: C-1, CK-1 (Battery, 12V, 7 A/h).	pcs	2		
2.	08-02-412-1	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, cross-section up to 2.5 mm <sup>2</sup> .	100 m	1.05		
2.27		Cat.5e UTP cable with copper wires	m	50		
2.28		BBGнг 2x0.75 mm <sup>2</sup> copper power cable, shielded, with halogen-free insulation	m	20		
2.		Copper cable, CQR 6x0.22 mm <sup>2</sup> , shielded, with halogen insulation	m	20		
2.		SI cable, 2 conductors, 0.8 mm <sup>2</sup> , fire resistance of at least 30 min (JE-H(St)H-1x2x0.8)	m	15		
2.	08-02-409-1	Vinyl plastic pipe on installed structures, on walls and columns, fastened with clamps, diameter up to 25 mm.	100 m	0.9		

2.32		Polyvinyl chloride pipe D=16 mm	m	90		
		<b>TOTAL Chapter 2. Access control system</b>				
		<b>Including salary</b>				
		<b>Chapter 3. Video surveillance system</b>				
2.33	10-01-001-10	"ATCKY" central equipment: Miscellaneous destination board, with mounting location preparation; 2U 4K NVR video recorder, 128-ch IP camera inputs, 2-ch@32 MP/2-ch@24 MP/4-ch@12 MP/8-ch@8 MP/16-ch@4 MP/32-ch@1080p, 2 HDMI, 2 VGA, 8K or dual 4K video outputs, 8-ch IP speakers can be connected, such as DS-96128NI-M8(STD) or analogue	pcs	1		
2.34	10-04-067-23	Colour television equipment: Video control device. 6 MP camera 24/7 full-colour imaging, sensor: 1/2.4" Progressive Scan CMOS, Colour: 0.001 Lux @ (F1.0, AGC ON), 0 Lux with light built-in microphone. Water and dust resistant (IP67). Operating temperature: -30°C +60°C type, DS-2CD1067G2-LUF or similar	pcs	18		
2.35	10-04-067-23	Colour television equipment: Video control device. IP turret video camera (plug + screws included), IP67; 1/3 inch Progressive, Scan CMOS 0.001 Lux@(F1.0,AGC ON); night colour vision; lens-2.8mm; IR 30m; H.264; H.265; H.265+, built-in microphone DC12VPOE type, DS-2CD1147G2H-LIU(F) or analogue	pcs	33		
2.36	10-04-067-23	Colour television equipment: Video control device. Outdoor IP video camera, 1/1.8" Progressive Scan CMOS, Colour: 0.047Lux@ (F2.6, AGC ON), 6MP, 1.27mm lens; 360: H.265/H.264/ H.265+/H.264+; -40 °C to 60 C, PoE(802.3af), IK10/IP67 type DS-2CD6365G0E-I(V)(S) or analogue	pcs	3		
2.37	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Aggregation Switch 8 Port Gigabit Smart POE, 8xgigabit PoE ports, and 2xgigabit fibre optic ports, IEEE 802.3at/af, layer 2 management protocols such as STP/RSTP, VLAN, link aggregation, SNMP, QoS type, DS-3E1510P-SI or similar)	pcs	1		
2.38	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Switch 24PoE ports; 10; 1 AC220V; 24x1Gbps RJ45PoE, 1xGbps combo, 1xRJ45 IEEE 802.3af, IEEE 802.3at, VLAN Support 802.1Q, 16k MAC addresses, Managed Support STP/RSTP Loop prevention type, DS-3E1326P-EI/M or analogue)	pcs	3		
2.39	10-04-101-07	Subscription equipment and miscellaneous: (8TB SATA-III Hard Disk Drive)	pcs	7		
2.40	10-04-067-23	Colour television equipment: (32" LED monitor)	pcs	1		
2.41	10-04-067-23	Colour television equipment: (55" LED TV, with wall mount)	pcs	1		
2.42	10-08-001-12	Receiving devices: (4K HDMI Cat6 Extender Up to 100m, Ultra HD 4K@30Hz (receiver/transmitter))	pcs	2		
2.43		Wall bracket for outdoor camera mounting	pcs	18		
2.44	10-06-037-08	Cabinets, boxes and cans for pipe installations: (Junction box for outdoor chambers type DS-1280ZJ-XS or similar)	pcs	18		
2.45		Junction box for DS-1280ZJ-XS or similar outdoor cameras	pcs	18		
2.46	10-04-066-07	Wall-mounted equipment: SFP modules	pcs	2		
2.47		SFP modules, single mode SM, LC duplex, 1.25 Gbps type: HK-SFP-1.25G-20-1310(0-STD) or equivalent	pcs	2		
2.48		SFP modules, single mode SM, LC duplex, 1.25 Gbps type: HK-SFP-1.25G-20-1550(0-STD) or equivalent	pcs	2		
2.49	08-02-144-1	Connection of conductor wires or cables to terminals, section up to: 2.5 mm2.	100 pcs	1		
2.50		Rj-45 connector	pcs	74		
2.51		Shielded metal connector, RJ-45 Cat6	pcs	36		

2.52	08-02-412	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, total cross-section up to 2.5 mm <sup>2</sup> .	100 m	28		
2.53		UTP/CU cat6 POE+ cable	m	1,700		
2.54		FTP/CU cat.6 4x2x23AWG POE+ cable	m	1,100		
2.55	10-02-051-01	Installation, connection of cables, conductors, bars: (UTP Cat.6 connection cable, 1.5 m (Patch cord))	100 pcs	0.03		
2.56	Market price	UTP Cat.6 connection cable, 1.5 m (patch cord)	pcs	3		
2.57	08-02-409-2	Vinyl plastic pipe for installed structures, on walls and columns, fastened with clamps, diameter up to 50 mm.	100 m	0.1		
2.58		PVC polyvinyl chloride pipe D=50mm	m	10		
2.59	08-02-409-1	Vinyl plastic pipe for installed structures, on walls and columns, fastened with clamps, diameter up to 25 mm.	100 m	18		
2.60		Polyvinyl chloride pipe D=20 mm	m	700		
2.61		Insulated corrugated metal pipe D=20mm	m	1,100		
2.62	10-06-036-12	Steel pipes for low-voltage networks, diameter, mm, up to: 50 (Steel pipe (protective sleeve) D=50mm)	100 m	0.035		
2.63		Steel pipe (protective sleeve) D=50mm	m	3.50		
2.64	CL18A	Various metal structures made of rolled profiles, sheet metal, corrugated sheet metal, concrete steel, pipes for supports or coverings, totally or partially embedded in concrete. (Fastening material).	kg	54		
		<b>TOTAL Chapter 3. Video surveillance system</b>				
		<b>Including salary</b>				
		<b>Chapter 4. Audio surveillance system</b>				
2.65	10-04-100-07	Desktop equipment: (Audio monitoring and processing server: CPU i9, RAM 64GB, GPU RTX 3060+, SSD 1TB NVMe, network 2xGigabit (minimum required configuration))	pcs	1		
2.66	10-08-003-02	Ultrasound devices: monoblock ultrasound device (Microphone: -45 dBV/Pa (Pa=94dB SPL), One-way, 2xChannels; PCM, 16 bits linear, G.711 mu-Law; High sensitivity, Omni-Directional condenser MIC element, password protection, user level access, ONVIF Profile T, S, IPv4, HTTP, RTSP, RTP, TCP, UDP, with mounting element type, DigiFact A LE-870 or analogue)	pcs	8		
2.67	08-02-144	Connection of conductor wires or cables to terminals, cross-section up to: 2.5 mm <sup>2</sup> .	100 pcs	0.1600		
2.68		Rj-45 connector	pcs	16		
2.69	08-02-412	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, cross-section up to 2.5 mm <sup>2</sup> .	100 m	5.3		
2.70		UTP/CU cat6 POE+ cable	m	530		
2.71	08-02-409	Vinylplast pipe for installed structures, on walls and columns, fastened with clamps, diameter up to 25 mm.	100 m	1		
2.72		Polyvinyl chloride pipe D=20 mm	m	100		
		<b>TOTAL Chapter 4. Audio surveillance system</b>				
		<b>Including salary</b>				

Total		
Social insurance		24.0000%
Total		
Transport expenses		%

Total	
Storage expenses	%
Total	
Overhead expenses	%
Total	
Estimated profit	%

<b>Total Estimate without VAT</b>	
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<b>Estimate: Equipment</b>						
No	Symbol standards and resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		<b>Chapter 1. Automatic security signalling</b>				
3.1		Control device for the security and alarm system, 10 zones, type (DSC HS2016) or analogue	pcs	1		
3.2		LED keypad, type (DSC HS2LCD) or similar	pcs	1		
3.3		16.5VAC/40VA transformer	pcs	1		
3.4		UPS backup power supply =7AH	pcs	1		
3.5		12V, 7AH, 1270BATT rechargeable batteries	pcs	2		
3.6		IP communication module (TL280E Ethernet) or analogue	pcs	1		
3.7		ATS-100 radio transmitter or GSM communication module	pcs	1		
3.8		Motion detector	pcs	1		
3.9		Combined broken glass + motion detector	pcs	3		
3.10		Magnetic contact detector	pcs	8		
3.11		Optical-acoustic alarm device, 12V	pcs	1		
		<b>TOTAL Chapter 1. Automatic security signalling</b>				
		<b>Including salary</b>				
		<b>Chapter 2. Access control system</b>				
3.12		Control controller, RJ-45 (TCP/IP), in box	pcs	1		
3.13		Reader	pcs	2		
3.14		Electromagnetic lock, 12V, 500 mA, 350 kg with magnetic detector	pcs	1		
3.15		Access card, Em-Marine proximity card (to be specified before installation)	pcs	5		
3.16		Door damper	pcs	1		
3.17		Magnetic detector	pcs	1		
3.18		SAR-12/3A backup power supply	pcs	1		
3.19		Battery, 12V, 7 A/h	pcs	2		
		<b>TOTAL Chapter 2. Access control system</b>				
		<b>Including salary</b>				
		<b>Chapter 3. Video surveillance system</b>				

3.20		2U 4K NVR video recorder, 128-ch IP camera inputs, 2-ch@32 MP/2-ch@24 MP/4-ch@12 MP/8-ch@8 MP/16-ch@4 MP/32-ch@1080p, 2 HDMI, 2 VGA, 8K or dual 4K video outputs,	pcs	1		
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		8-ch IP speakers can be connected of the type, DS-96128NI-M8(STD) or analogue				
3.21		6 MP camera 24/7 full-colour imaging, sensor: 1/2.4" Progressive Scan CMOS , Colour: 0.001 Lux @ (F1.0, AGC ON), 0 Lux with light Built-in microphone. Water and dust resistant (IP67). Operating temperature: -30°C +60°C type, DS-2CD1067G2-LUF or analogue	pcs	18		
3.22		IP turret camera (plug + screws included), IP67; 1/3 inch Progressive, Scan CMOS 0.001 Lux@(F1.0,AGC ON); night colour vision; lens-2.8mm; IR 30m; H.264; H.265; H.265+, built-in microphone DC12VPOE type, DS-2CD1147G2H-LIU(F) or analogue	pcs	33		
3.23		Outdoor IP video camera, 1/1.8" Progressive Scan CMOS, Colour: 0.047Lux@ (F2.6, AGC ON), 6MP, 1.27mm lens; 360: H.265/H.264/ H.265+/H.264+; -40 °C to 60 C, PoE(802.3af), IK10/IP67 type DS-2CD6365G0E-I(V)(S) or analogue	pcs	3		
3.24		Aggregation Switch 8 Port Gigabit Smart POE, 8xgigabit PoE ports, and 2xgigabit fibre optic ports, IEEE 802.3at/af, layer 2 management protocols such as STP/RSTP, VLAN, link aggregation, SNMP, QoS type, DS-3E1510P-SI or similar	pcs	1		
3.25		Switch 24PoE ports; 10; 1 AC220V; 24x1Gbps RJ45PoE, 1xGbps combo, 1xRj45 EEE 802.3af,IEEE 802.3at, VLAN Support 802.1Q, 16k MAC addresses, Managed Support STP/RSTP Loop prevention type, DS-3E1326P-EI/M or similar	pcs	3		
3.26		Hard Disk HDD 8TB SATA-III	pcs	7		
3.27		32" LED monitor	pcs	1		
3.28		55" LED TV with wall mount bracket	pcs	1		
3.29		4K HDMI Cat6 Extender Up to 100m, Ultra HD 4K@30Hz (receiver/transmitter)	pcs	2		
		<b>TOTAL Chapter 3. Video surveillance system</b>				
		<b>Including salary</b>				
		<b>Chapter 4. Audio surveillance system</b>				
3.30		Audio monitoring and processing server: CPU 19, RAM 64GB, GPU RTX 3060+, SSD 1TB NVMe, 2xGigabit network (minimum required configuration)	pcs	1		
3.31		Microphone: -45 dBV/Pa (Pa=94dB SPL), One-way, 2xChannels; PCM, 16 bits linear, G.711 mu-Law; High sensitivity, Omni-Directional condenser MIC element, password protection, user level access, ONVIF Profile T, S, IPv4, HTTP, RTSP, RTP, TCP, UDP, with mounting element type, DigiFact A LE-870 or analogue	pcs	8		
		<b>TOTAL Chapter 4. Audio surveillance system</b>				
		<b>Including salary</b>				

Total	
Storage expenses	%
<b>Total Estimate excluding VAT</b>	

Prepared by:

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Verified:

(position, signature, surname, first name)