Extension of the facility of the Technical School Gradiska Bosnia and Herzegovina

Bill of Quantity

General requirements from BoQ

This bill provides for the delivery and installation of its material listed by Items and its small unspecified material required for complete fabrication and installation as stated by position, testing and commissioning as well as bringing to proper original condition of places damaged in already performed works and constructions. All materials used must be of first-class quality and meet standards.

The works must be performed by a professional workforce, and in full compliance with the applicable technical regulations for the same types of work.

The price includes the price of materials, labor costs and all taxes and contributions on materials. The price includes the preparation of all possible workshop documentation, testing and commissioning of all elements of the installation listed by position. The listed equipment manufacturers are not exclusive.

The contractor may install other equipment or material, but provided that the equipment or material has the same electrical and structural characteristics as those listed, which is confirmed by an expert - the supervisory authority.

Deliver all the necessary material and make electrical installations in everything according to the valid regulations, attached graphic documentation, technical explanation and conditions, this bill of quantities and estimate, with the necessary material and professional workforce installed.

The positions given in the following text include, in addition to the procurement of all materials and equipment, their transport to the construction site, storage, delivery to the installation site and repair of all damaged parts of the facility and removal of debris to the landfill.

It is also necessary to eliminate all technical and aesthetic errors that occurred during the installation

RECAPITULATION	
Extension of the facility of the Technical School	**Total price (€) without VAT**
1. ARCHITECTURE	**0.00**
2. WATER AND SEWERAGE	**0.00**
3. ELECTRICAL INSTALLATION	**0.00**
3. TERMOTECHNICS	**0.00**
TOTAL PRICE (€)	**0.00**
VAT %	
Total Price with VAT (€)	

1. ARCHITECTURE

Item	Description	Unit of measure	Quantity	Unit of price	Total with out VAT (€)
	I Solid works				
1	Excavation of category III soil for foundation strips. Calculation per m3.	m^3	70.00		0.00
2	Procurement, filling and tamping of natural gravel for the buffer layer under the foundation strips in a layer 20 cm thick. Calculation per m3	m^3	11.55		0.00
3	Procurement, filling and tamping of natural gravel under the floor slab. Calculation per m3	m^3	23.00		0.00
Total soil works					**0.00**

	II CONCRETE WORKS				
1	Production of AB foundation strips and foundation beams from concrete MB .30. Calculation per m3.	m^3	65.00		0.00
2	Concreting AB floor slabs made of concrete MB30 over a gravel embankment. Calculation per m3.	m^3	23.00		0.00
3	Concreting of the full AB slab above the ground floor, I I II floor d= 18 cm of concrete MB 30 in formwork with supports. Calculation per m3.	m^3	61.00		0.00
4	Production of AB horizontal cerclages, lintels and window sills from concrete MB30 in formwork. Calculation per m3.	m^3	1.30		0.00
5	Production of AB vertical cerclages and columns from concrete MB30 in formwork. Calculation per m3.	m^3	11.00		0.00
Total concrete works					**0.00**

	III Reinforcement work				
1	Procurement ,transport,bending and installation of RA reinforcement 400/500 and MA 500/560. Calculation per kg.	kg	12000.00		0.00
Total reinforcement work					**0.00**

	IV Masonry				
1	Masonry of walls with giter block 25 x 19x19 in extension mortar. Calculation per m3.	m^3	60.00		0.00
2	Masonry of the walls with 20 cm thick giter blocks in extended mortar. Calculation per m3	m^2	17.00		0.00
3	Construction of horizontal waterproofing over the floor slab on the ground floor. Calculation per m2.	m^2	113.00		0.00
4	Production of thermal insulation from styrofoam d=13 cm and 12 cm and PVC foil under the glaze on the ground floor. Calculation per m2	m^2	100.00		0.00
5	Production of thermal insulation from styrofoam d=3 cm and PVC foil under the glaze on the 1st and 2nd floors. Calculation per m2	m^2	210.00		0.00
6	Production of 5 cm thick cement glaze over a layer of thermal insulation. Calculation per m2.	m^2	410.00		0.00
7	Making thermal insulation d=12 cm in the attic. Calculation per m2.	m^2	105.00		0.00
8	Plastering of walls made of giter block with an extension plaster. Calculation per m2	m^2	610.00		0.00
9	Plastering the ceiling with an extension plaster. Calculation per m2.	m^2	306.00		0.00
Total masonry					**0.00**

	V COVERING				
1	Procurement, production and installation of the roof structure. Calculation per m2 of horizontal roof projection.	m^2	120.00		0.00
2	Procurement of materials and lining of the roof with board d=2.4cm. Calculation per m2 of roof slope.	m^2	125.00		0.00
3	Procurement of materials and installation of a vapor-permeable foil over the wooden roof formwork. Calculation per m2 of roof slope.	m^2	125.00		0.00

4	Procurement of materials and riveting of laths over the wooden roof formwork. Calculation per m2 of roof slope.	m^2	125.00		0.00
5	Procurement of materials and riveting of 5/3cm counter laths. Calculation per m2 of roof slope	m^2	125.00		0.00
6	Procurement of materials and covering of ridges with suitable ridges. Calculation per m1.	m^1	9.20		0.00
7	Installation and dismantling of facade scaffolding. Calculation per m2	m^2	370.00		0.00
Total covering					**0.00**

	VI Sheet metal works				
1	Procurement of materials and sheet metal roofing. Calculation per m2 of roof slope.	m^2	125.00		0.00
2	Production and installation of horizontal gutters made of aluminum sheet d=55 mm complete with hooks. Calculation per m1	m^1	20.00		0.00
3	Production and installation of vertical gutters made of aluminum sheet d=55 mm complete with hooks. Calculation per m1	m^1	20.00		0.00
4	Production and assembly of gutter and wind moldings made of aluminum sheet d= 55 mm developed width 50 cm. Calculation per m1.	m^1	13.00		0.00
5	Production and installation of corner moldings made of aluminum sheet d= 55 mm developed width 50 cm. Calculation per m	m^1	13.00		0.00
Total sheet metal works					**0.00**
	VII Flooring works				
1	Laying of ceramic floor tiles, laying is carried out on tile adhesive joint to joint. Calculation per m2	m^2	210.00		0.00
2	Making plinths in classrooms and corridors. Calculation per m1	m^1	80.00		0.00

3	Installation of epoxy resin flooring on the ground floor. Calculation per m2.	m^2	100.00		0.00
Total flooring works					**0.00**

	VIII Painting works				
1	Painting the walls and ceiling with semi-dispersive paint 2 times. Calculation per m2	m^2	916.00		0.00
Total painting works					**0.00**

	IX Facade works				
1	Production of a thick-layered facade with 12 cm thick styrofoam with fire resistance class A1 with all the necessary preparatory and finishing works. Calculation per m2.	m^2	370		0.00
Total facade works					**0.00**

	X Locksmithing				
1	Procurement and installation of sectional doors on the ground floor with an electric motor, dimensions 410x295. Calculation per piece.	Pieces	1		0.00
Total locksmithing					**0.00**

	XI Carpentry works				
1	Procurement and installation of double-leaf PVC doors measuring 410x265 cm with a fixed wall. Installation by dry assembly with the help of screws and pur foam. Calculation per piece	Pieces	1		0.00
2	Procurement and installation of PVC windows. Installation by dry assembly with the help of screws and foam. The set also includes window sills in the color of the window. Window glazing with thermopon glass 4+16+4 mm. Calculation per piece				
	180x175	Pieces	3		0.00
	300x155	Pieces	5		0.00
	410x175	Pieces	2		0.00

3	Procurement and installation of PVC entrance doors with panel filling in the classroom from the school's main corridor. Door dimensions are 110x210cm. Calculation per piece	Pieces	3		0.00
Total carpentry works					**0.00**
	RECAPITULATION ARCHITECTURE				
	I. SOLID WORK				**0.00**
	II. CONCRETE WORK				**0.00**
	III. REINFORCEMENT WORK				**0.00**
	IV. MASONRY				**0.00**
	V. COVERING				**0.00**
	VI. SHEET METAL WORK				**0.00**
	VII. FLOORING WORK				**0.00**
	VIII. PAINTING WORK				**0.00**
	IX. FACADE WORK				**0.00**
	X. LOCKSMITHING WORK				**0.00**
	XI. CARPENTRY				**0.00**

1. ARCHITECTURE TOTAL:	**0.00**

2. WATER SUPPLY AND SEWERAGE

Item	Description	Unit of measure	Quantity	Unit of price	Total with out VAT (€)
1	Procurement and installation of a fire-resistant wall-mounted hydrant cabinet of size 55/55/12 with a door that is mounted on the wall. The cabinet contains a hydrant wall valve F535 S ND50, synthetic rubber hose length 15+5m, nozzle and other equipment	Pieces	1.00		0.00
2	Procurement and installation of galvanized pipes for the distribution of the internal hydrant network, with all the necessary fittings.				
	Ø50(mm)	m/	20.00		0.00
3	Measurement of the available flow and pressure on the hydrant network and issuance of the appropriate certificate. Measurement work can only be performed by an authorized professional institution.	Pieces	1		0.00
	2. WATER SUPPLY AND SEWERAGE TOTAL:				**0.00**

3. ELECTROPHASE

NOTE: all items include the procurement of all necessary materials and equipment with delivery to the installation site, supply and installation of small and consumable materials (junction boxes, clamps, screws, plaster, etc.) with completion of the installation and equipment, commissioning into function and trial operation.

Items	Description	Unit of measure	Quantity	Unit of price	Total with out VAT (€)
1	Distribution cabinet with associated elements	set	3		0.00
	Automatic fuse RX3-MCB 16A	peaces	42		0.00
	Automatic fuse RX3-MCB 10A	peaces	6		0.00
2	Main load switch 400A	peaces	1		0.00
	FID switch 40/0,03 A	peaces	3		0.00
3	trigger voltage for DPX3 24V	peaces	1		0.00
	small connecting material (busbars, clamps...)	set	1		0.00
4	EXPERIENCE switch AC 1M 16 A ground floor	peaces	2		0.00
5	EXPERIENCE single-pole switch 1M	peaces	12		0.00
6	EXPERIENCE switch mask 1M	peaces	12		0.00
7	EXPERIENCE socket 2M 16A 250V	peaces	40		0.00
8	EXPERIENCE socket with cover 2M 16A 250V	peaces	84		0.00
9	EXPERIENCE socket VGA	peaces	12		0.00
10	EXPERIENCE HDMI	peaces	12		0.00
11	Cross piece	peaces	6		0.00
12	FeZn 25x4mm	m	60		0.00
13	Cable 3X1,5mm2 PPY..	m	450		0.00
14	Cable 3X2,5mm2 PPY..	m	820		0.00
15	Cable 5X2,5mm2 PPY..	m	180		0.00
16	Cable 5X10mm2 PPY..	m	195		0.00
17	HDMI 15m	peaces	6		0.00
18	VGA 15m	peaces	6		0.00
19	UKO-UTO 16A	peaces	9		0.00
20	PF wire 10mm	m	20		0.00
21	PVC hose Fi 16	m	1000		0.00

GHTNING

22	Built-in LED panel 4500K V-TAC 24W LED Premium Panel Downlight Round	peaces	69		0.00
23	LED panic lamp 2W IP20 with pictogram	peaces	6		0.00

VORK AND TV

24	PROCUREMENT AND LAYING OF CAT 6 UTP CABLE	m	1700		0.00
25	PURCHASE AND INSTALLATION OF LAN SOCKET RJ45 CAT6	peaces	117		0.00
26	LAN PATCH PANEL 24/C6	peaces	1		0.00
27	LAN SHELF 19’’’,1U,350MM 50KG	peaces	1		0.00
28	RACK WALL CABINET ANSEC 15U 600X450	peaces	1		0.00
29	LAN DISTRIBUTION PANEL 8x200V 19"	peaces	1		0.00
30	ASSEMBLY OF RACK CABINETS WITH ACCOMPANYING EQUIPMENT (ASSEMBLY OF PATCH PANELS, NETWORK TERMINALS...)	peaces	1		0.00
31	OPTICAL DROP CABLE 2 FIBERS	m	15		0.00

RE ALARM

32	FA CENTRAL ADDRESSABLE (EXTENDABLE TO THE ENTIRE SCHOOL)	peaces	1		0.00
33	FA BASE S-EB0010	peaces	16		0.00
34	OPTICAL DETECTOR	peaces	16		0.00
35	S-Smarty/GFR	peaces	0		0.00
36	SIREN VD S-IVY R	peaces	4		0.00
37	ASSEMBLY AND PROGRAMMING OF FA CENTRAL WITH ISSUANCE OF CERTIFICATES AND NECESSARY DOCUMENTATION	Flat rate	1		0.00
38	RUNNING METER OF INSTALLATION (CABLE JB-Y(St)Y 2x2x0.8mm2 fire alarm, PN hoses and PC pipes...)	m	600		0.00
39	BATTERY 12V/2.4AH ULTRA 1219	peaces	4		0.00
40	ADDRESSABLE MANUAL FIRE ALARM	peaces	6		0.00
41	EXAMINATION OF INSTALLATIONS WITH DEVELOPMENT OF TECHNICAL DESTINATION	Flat rate	1		0.00
3. ELECTROPHASE TOTAL:					**0.00**

4. HEATING AND COOLING

Items	Description	Unit of measure	Quantity	Unit of price	Total with out VAT (€)
1	Procurement of the necessary material, delivery and assembly of plate compact radiators from manufacturers such as "Vogel and Noot" Germany or similar, complete with small materials needed for connection and suspension of the following dimensions and quantities:				
	22K 600 x 1400	Pieces	3.00		-
	22K 600 x 1800	Pieces	6.00		-
2	Procurement of the necessary material, delivery and installation of radiator valves with a riser pipe complete with the main thermostatic product as "Caleffi" complete with couplings and material for connection and suspension.				
		set	9.00		-
3	Procurement of the necessary material, delivery and installation of black pipes, complete with fittings and material for connection and suspension of the following dimensions and quantities:				
	NO 32	m.	30.00		-
	NO 25	m.	50.00		-
5	Procurement of the necessary material, delivery and assembly Al-pex pipe with 6 mm thick insulation, complete with material for joining and fastening the following dimensions:				
	ø 16x2	m.	245.00		-

6	Procurement of the necessary material, delivery and installation of a distribution cabinet made of pickled sheet metal, with a locking lock, for 3 circuits, with all its components: distributor, busbar, support for the distributor and busbar, ball valve, automatic radiator, drain tap, semi-coupling.	Pieces	3.00		-
7	Procurement of the necessary material, delivery and installation of insulation for black pipes, 13 mm thick, complete with the necessary auxiliary material.				
	13 x 32	m.	30.00		-
	13 x 25	m.	50.00		-
8	cold system test				
		Flat rate	1.00		-
9	warm system test				
		Flat rate	1.00		-
10	Preparatory and final works and transport costs				
		Flat rate	1.00		-
4. HEATING AND COOLING TOTAL:					**-**