



SERBIA OPERATIONS CENTRE

## Notice of change in quantities in two parts of BoQ

OPEN TENDER: RFP

BENEFICIARY COUNTRY: Serbia

REFERENCE NUMBER: UNOPS-SFRS-2015-W-060

DESCRIPTION: Provision of construction works on the Hall of Culture and Sports in Obrenovac – phase 1, Shared installation and Theatre

UNCCS CODE: /

POSTING DATE: 17 September 2015

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File name Bill of Quantities

Change in quantities in following parts of Bill of Quantities:

1. **Water and sewage installation**

ESTIMATED BILL OF QUANTITIES: WATER  
SUPPLY AND SEWAGE INSTALLATIONS

DESCRIPTION	UoM	Quantity
<b>PREVIOUS WORKS</b>		
Careful dismantle of basin fixtures. Dismantle the basin fixtures, clean and hand them over to the investor through kept records. Calculation per piece.	pcs.	11.00
Careful dismantle of WC pan fixtures. Dismantle the WC pan fixtures, clean and hand them over to the investor through kept records. Calculation per piece.	pcs.	10.00
Careful dismantle of sink fixtures. Dismantle the sink fixtures, clean and hand them over to the investor through kept records. Calculation per piece.	pcs.	3.00

Careful dismantle of urinal fixtures. Dismantle the urinal fixtures, clean and hand them over to the investor through kept records.

Calculation per piece. pcs. 5.00

Careful dismantle of drain fixtures. Dismantle the drains, clean and hand them over to the investor through kept records.

Calculation per piece. pcs. 8.00

Sealing of sewage pipes. Seal the sewage pipes in the floor leading from the disassembled devices.

Lump sum calculation. LS 1

Dismantling of water supply network. Dismantle the water supply pipes in the walls so they can be replaced with new ones. Dismantled pipes shall be cleaned and handed over to the investor through kept records.

Lump sum calculation. LS 1

Mechanical cutting of slab on the ground d=12cm. Cutting in strips 1m wide. The item includes all sides of the field that is cut. Calculation per meter.

m 17.9

**TOTAL I:**

#### EARTHWORKS

Trench digging, rectangular shape, width 1.0 m, maximum depth 1.80 m, disposal of excavated material on one side at a minimum distance of 1.0 m from the edge of the trench.

Calculation per m3 of excavated material in virgin condition, for all necessary labour and materials. The unit price includes possible pumping of groundwater, necessary shoring of trenches deeper than 1.0m, trench protection.

m3 26.85

Unit price includes the supply, delivery, transport along the trench, pouring into trench, planning and compaction of sand in layers beneath and around the pipe, thickness of layer is 30cm. Material to be used is sand type "Dunavac".

Calculation per m3 of installed sand in compacted condition, for all necessary labour and materials.

m3 5.37

Trench backfilling with excavated soil

Trench backfilling with excavated soil including compaction in layers of 30 cm, until obtaining natural compaction.

Calculation per m3 of backfilled trench in compacted state, for all labour and material.

Sanitary water supply network m3 21.48

Transport of excess soil from excavation.

Unit price includes the transport of the excavated material to the city landfill.

m3 5.37

Sub-base of concrete floor slab

Supply of materials, transport and backfilling of gravel in a layer of 10cm as a base for construction of concrete floor slab. Calculation per m2.

m2 17.9

**UKUPNO II:**

### **WATER SUPPLY INSTALLATIONS**

Supply and installation of polypropylene (plastic) water supply pipes with all the necessary fittings for pipe network. Unit price includes hanging the pipes on wall and structure, chiselling and punching of walls in floor structure, as well as the required excavation including backfilling.

Calculation per meter of finished pipeline.

Ø20,DN 15 mm	m	15.00
Ø25,DN 20 mm	m	10.00
Ø32,DN 25 mm	m	10.00
Ø40,DN 32 mm	m	5.00

Testing of pipeline on pressure. Defective pipes and joints shall be replaced

Lump sum calculation m1 40.00

Disinfection and bacteriological testing of pipeline.

Lump sum calculation m1 40.00

Supply and installation of thermal insulation for pipes made of POLYURETHANE or other appropriate foam insulator.

Calculation per meter.

Ø 20-32mm	m	20.00
Ø 40-50mm	m	5.00

Supply and installation of electrical low-mounted hot water heater under pressure.

Calculation for completely mounted hot water heater.

V = 10 lit. pcs. 3.00

V = 30 lit. pcs. 1.00

Connection of the existing sanitary network to a new one, below the first floor slab. The existing verticals and branches of the existing sanitary network are connected to the new lower distribution of repaired sanitary network, in toilets that are not subject to the intervention. Proper fittings shall be installed at connection points.

Calculation per connection point, i.e. piece. pcs 1.00

**TOTAL III:****SEWAGE INSTALLATIONS**

Supply and installation of PVC sewer pipes with appropriate fittings. The pipes are mounted by hanging, chiselling and punching walls of floor structure or by digging into the walls or floors in a strictly designed decline of 2%. Unit price includes sealing material for pipe joints.

Calculation per meter of complete pipeline.

Ø 50 mm - PVC	m	5.00
Ø 75 mm - PVC	m	15.00
Ø 110 mm - PVC	m	10.00

Supply and installation of floor drains with waterless trap, plastic housing and a chrome grille, horizontal drains with a flange for toilets.

Calculation for completely mounted drain.

Ø 75 mm	pcs.	14.00
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Watertightness testing of sewage pipes.

Calculation per meter.	m'	20.00
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**TOTAL IV:****SANITARY DEVICES**

Nabavka i montaža električnih niskomontažnih bojlera pod pritiskom.

Obračun za komplet montiran bojler.

V = 10 lit.	pcs.	3.00
- concealed gate valve Ø 15 mm	pcs.	3.00

Supply, transport and installation of complete wash basin, I class, white faience. Basin size 50/40 cm, it should be furnished with a standing single lever mixer for cold and hot water, with a short outlet, nickel-plated drain trap Ø32 mm with a rosette, plug and chain. Design and installation of fixing strips or plastic plugs in the wall for fixing the basin, and is included in the unit price.

Calculation per piece including labour and material.	pcs.	12.00
- concealed gate valve Ø 15 mm	pcs.	12.00

Supply, transport and installation of a complete WC pan made of faience, I class. EK valve Ø15 mm with nickel-plated cap shall be placed on water inlet to toilet cistern. Plastic seat is mounted on the toilet pan. Low-mounted toilet cistern shall be installed, fountain type, with plastic flush pipe and other accessories. Unit price includes all connecting and sealing materials.

Calculation per completely mounted and tested device.	pcs.	10.00
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Supply and installation of faience urinal, which consists of: urinal bowl, set with a trap, valves for flushing with angle valve, PE drain elbow Ø50mm, connection sets for flushing, flat valve DN15.

Obračun za komplet montiran pisoar.	pcs.	5.00
- angle valve for urinal: Ø 15 mm	pcs.	5.00

Supply, transport and installation of SLOP SINK made of white faience, domestic production, complete with grid, cistern, flush pipe and necessary connecting sealing material. Slop sink shell be equipped with a pillar single tap for cold and hot water

Calculation per piece including labour and materials.	pcs.	1.00
- concealed gate valve Ø 15 mm	pcs.	1.00

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**TOTAL V:**

**SANITARY WARE**

Supporting accessories in bathrooms and toilets, as chosen by the designer, with all the necessary material for fixing:

* paper holder	pcs.	10.00
* liquid soap dispenser	pcs.	12.00
* toilet brush	pcs.	10.00
* mirror dimension 80x100cm, next to wash basin	pcs.	12.00

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**TOTAL VI:**

**CONCRETE WORKS**

Supply of materials, transport and construction of base for waterproofing, made of lean concrete MB20 d=10cm. Calculation per m2.

m2 17.90

Supply of materials, transport and construction of concrete slab on the ground d=12cm, MB25 concrete. Calculation per m2.

m2 17.90

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**TOTAL VI:**

**INSULATION WORKS**

Supply of materials, transport and construction of horizontal waterproofing on parts of the slab on the ground (after patching) to protect it against moisture and seepage water. It is performed in the layers of bleeding concrete, as follows:

- Cold applied bitulite coating "A"
- Hot applied bitumen coating 85/25
- kondor 3 (APP Plastomer Modified-Bitumen Waterproof Membrane)
- kondor 3 (APP Plastomer Modified-Bitumen Waterproof Membrane) with defined overlappings welded to the previous layer. Special attention is paid to the connection between new and existing waterproofing layer. Insulation shall be raised along the walls to the height of 30cm. Calculation per m2, complete item.

m2 25.06

TOTAL VII:

**OTHER WORKS**

Flushing of sewer network before and after the intervention.  
Calculation per meter.

m' 20.00

TOTAL IX:

**SUMMARY**

- I PREVIOUS WORKS
- II GROUND WORK
- III WATER SUPPLY INSTALLATIONS
- IV SEWAGE INSTALLATIONS
- V SANITARY DEVICES
- VI SANITARY WARE
- VII CONCRETE WORKS
- VIII INSULATION WORKS
- IX OTHER WORKS

TOTAL:

**2. Automatic fire alarm**

Item	DESCRIPTION	UoM	Quantity
1.	Delivery, installation on the room ceilings and connection to the existing system of addressable optical fire detectors, complete with a corresponding base.	pcs.	214

2.	Delivery, installation and connection to the existing system of addressable fire detectors in appropriate housing.	pcs.	18
3.	Delivery, installation and connection to the existing system of reflective beam detectors range of 5-50 m.	pcs.	6
4.	Delivery, installation and connection of the module to connect to the loop of reflective beam detector	pcs.	5
5.	Delivery and installation on room ceiling and connection to its parallel indicator detector	pcs.	9.00
6.	Delivery and connection in appropriate housing of reserve supply (for beam detectors) 24V, 7Ah	pcs.	1.00
7.	Delivery and laying of cable partially in quick tube in walls of the rooms, and partly in the existing LV cable trays JH(St)H FE180/E30 2x2x0.8 of cable for the exercise of executive functions of PP central units.	m	40
8.	Delivery and laying of cable partially in quick tube in walls of the rooms, and partly in the existing LV cable trays JH(St)H 2x2x0,8 of connection cable in a loop of manual and automatic fire detectors.	m	1600
9.	Delivery and laying of hard halogen-free quick pipes Ø 16 mm on the walls and ceilings of the appropriate carriers	m	1400
10.	Functional testing of installation, commissioning of central units, marking of detectors and parallel indicators, operator's training and creation of control books.	Lump sum	
	<b>TOTAL 1-10:</b>		

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