

Attachment 1 - Scope of Works

Works for the drilling of an exploration-exploitation water well on the cadastral plot no.4284/1 CM Surčin according to technical conditions from the „Project of detailed hydrogeological investigations for finding and exploitation of underground water for the purpose of water supply for two households in Surčin“, approved by the Secretariat for Urban Planning and Construction, Department of Geology and Documentation (Decision IX-16 no. 9571-3/2014 from 28 July 2014).

1. Justification:

The beneficiary families are assisted in different ways regarding type of housing solutions offered. The beneficiaries with their own property are granted the construction material for house reconstruction and improvement of their living conditions. Within this assistance, two beneficiary families, Gaši and Jovanović, will be assisted in water supply by drilling the water well.

2. Immediate objective:

This Request for Quotation refers to the activities on water well drilling to max depth of 80m, all in line with the approved project (forecasting technical geological profile of the well is in the graphic attachment 1), including all other works and equipment listed in attached BoQ. Expected richness of the well is 1l/sec.

Beneficiary families Gasi and Jovanovic are situated on cadastral plots 4284/14 and 4284/15 which are part of undivided 4284/1 plot, CM Surcin. Micro location for drilling is included on the sheet 429-2-4, Belgrade Topographic plan 1:25 000 (information in graphic attachments 2, 3 and 4).

Both beneficiaries have signed the agreement on mutual use of the water from the well. The agreement will be certified in the court after the drilling is finalized.

3. Description of Works - Drilling of an exploration-exploitation water well IEBS-1/14:

The proposed offer should be made in line with further requirements and should include further activities:

- Investigatory borehole with Ø190mm diameter and max depth of 80m should be developed using the rotational method, using bentonite rinse (Phase I)
- Water well drilling to be done using the rotational method, using bentonite rinse with minimal diameter Ø220mm, through neogene sediments - clay, sandy clay and sands. Then install well's structure of plastic pipes d = 140/126mm in diameter. Length of the precipitator will be 5m and and the length of the filter part around 25m; the rest high up to the land surface will be the sub- filter part of structure.
- Filter backfill should be made of quartz granules, granulation size d = 1-3mm, followed by buffer of dry clay in the interval lenght of 10m. Additional lenght to be filled by petty material.
- Rinse well until the water becomes clear, first wit „garniturska“ and then with submersible pump.
- Perform „step-test“ on well richness making three reductions in groundwater level, with pums' capacities of 0,5, 1,0 and 1,5l/sec. During the test, at intervals of 1min, perform continual measuring of the oscillations in dynamic level and water temperatures with diver.

The Bidder shall be under the obligation also to perform:

- At the end of well richest testing, submit the request to the relevant institution (National Institute of Public Health) for water chemical quality verification. The request should be submitted according to relevant Rulebook, the criteria for individual cases. The results to be presented in final technical report.
- In the case of unsafe drinking water, suggest the most economical solution.
- After the field work finalization, Technical report on the results of the geotechnical explorations has to be prepared and submitted to the Secretariat for Urban Planning and Construction. (Phase II)

The offer should also include all the works and equipment in the well shaft constructed for placement and protection of equipment needed for household supplying – all according to the BoQ for Phase III.

4. Documentation Available to the Designer:

- Translation into Serbian language of the Bill of Quantities that represents the integral part of the RfQ (as Returnable Quotation Schedule 3). The translation serves only as information.
- Graphic attachment 1: Forecasting technical geological profile of the well
- Graphic attachment 2: Geodetic drawing of the cadastral plot 4284/14 and 4284/15, CM Surcin
- Graphic attachment 3: Location of the investigation area in Surcinu
- Graphic attachment 4: Topographic plan of the wider investigation area
- Graphic attachment 5: Geological map of the wider investigation area

Complete „Project of detailed hydrogeological investigations for finding and exploitation of underground water for the purpose of water supply for two households in Surčin“, approved by the Secretariat for Urban Planning and Construction, Department of Geology and Documentation (Decision IX-16 no. 9571-3/2014 from 28 July 2014) will be available to the selected Bidder.

5. Required conditions for offering and performing the works:

The offered price has to contain all works, material, complete equipment and all connecting items for the water supply of two beneficiary families. Connection from the water meters to the houses will be the responsibility of beneficiaries themselves.

The Bidder has to explicitly specify the manufacturer for the main equipment: submersible pumps and booster container .

All works should be performed in line with the Law on Mining and Geological Exploration, Law on Safety and Health at Work, Water Law and all relevant laws and Rule books.

The Bidder has to be registered for drilling works related to water supplying, water wells drilling, installation of piezometers etc.

The Bidder must also submit:

1. List of references – at least five water wells drilled up to the similar depth in last three years. The contacts of the investors/ purchasers should be clearly stated and all other columns to be filled in the Returnable Quotation Schedule 7.
2. The name of personnel that the bidder proposes to assign to the execution of the works: position description, education and years of experience on this type of works - columns to be filled in the Returnable Quotation Schedule 5.
3. Company registration documents – Document from Serbian Business Registers Agency to be provided. Data to be filled in the Returnable Quotation Schedule 2.

6. Activities:

The activities shall include, but not be limited to the following tasks:

- All interested bidders are encouraged to proceed to further familiarisation with the “Let’s Build a Home Together” project, within which this design activity is implemented.
- All interested bidders are encouraged to visit the location of the construction site in order to obtain further relevant information about the activities.

Timeframe of the activities:

Detailed work plan to be provided and should not be longer than 45 calendar days.

N.B. All information must be entered in the Returnable Quotation Schedules in English provided within the RfQ.