# *ANNEX II + III :* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

**Contract: Supply and installation of a Fire Hydrant Network with a Booster Pump Station for the Enclosed Zones of the “Đurmani” Reservoir and Break Pressure Chambers “Perazića Do” and “Sveti Stefan“**

**Ref. No. 25-5704/1**

**Columns 1-2 should be completed by the Project partner**

**Columns 3-4 should be completed by the tenderer**

**Column 5 is reserved for the evaluation committee**

Annex III - the Contractor's technical offer

The tenderers are requested to complete the template on the next pages:

Column 2 is completed by the Project partner shows the required specifications (not to be modified by the tenderer),

Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient)

Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offeredspecifications.

The requirements set out in the technical specifications represent the minimum technical characteristics which offered goods must satisfy, unless stated otherwise, and tenderers are not allowed to modify technical specification in any way.

For each item for which it is not explicitly stated that it is allowed to offer goods of the equal characteristics, i.e. for each item where it is not stated “or equivalent”, for the purposes of this tender documentation it is assumed that words “or equivalent” are stated, and tenderer is allowed to offer equivalent goods / goods of equivalent characteristics.

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| --- | --- | --- | --- | --- | --- | --- |
| **1.**  **Item number** | **2.**  **Specifications Required** | | **3.**  **Specifications Offered** | | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation Committee’s decision (Y/N)** |
| **1.**  **2.**  **3.** |  | | **Model/Brand name: \_\_\_\_\_\_\_\_\_\_\_\_** | |  |  |
| **Hydrant network-Đurmani** | Preparation of the Technical Design for the Hydrant Network and Booster Pump Station for the secured zone of the "Đjurmani" reservoir including the chlorination station. The protected zone covers an area of approximately 7.000 m². The scope of work includes the design and hydraulic calculation of the fire protection and potable water supply pipelines, as well as the booster pump station, in accordance with applicable standards and regulations. The design shall provide for above-ground hydrants, a fire hose cabinet with hoses and related equipment, and connection to the existing pipeline network. The price shall include all labor, computing and other equipment costs, costs of technical review and obtaining necessary approvals, as well as overhead expenses. The fee includes the lump sumete delivery of the technical documentation in analog format (3 hard copies), certified by the responsible designer and the design bureau, and one CD containing the technical design in PDF format along with open file formats (DWG, Excel, etc.). | 1.1 |  |  |  |
| Execution of All Construction Works for the Installation of the Hydrant Network, Including: Route marking and staking, cutting of concrete surfaces and restoration to original condition upon lump sumetion of installation works, mechanical and manual trench excavation for pipeline installation, sand bedding, backfilling, removal of excess material, procurement, transport, and installation of C 16/20 concrete for thrust blocks beneath hydrants and pipelines within the valve chamber, wall coring in the valve chamber, sealing of openings after pipe installation, and waterproofing repairs. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The billing includs the lump sumete execution of construction works. | 1.2 |  |  |  |
| Procurement, Transport, and Installation of High-Density Polyethylene (HDPE) Pipes of the Designed Diameter and PN 10 Pressure Rating for the Fire Protection and Sanitary Water Pipelines. Following installation, the pipelines shall be tested at the prescribed test pressure. Upon successful testing, the entire pipeline shall be flushed, disinfected, and water samples taken for chemical and bacteriological analysis. This item also includes the procurement and installation of a steel pipe section matching the diameter of the HDPE pipeline, as well as the connection of the hydrant network to the existing DN700 mm steel pipeline within the reservoir valve chamber. This includes hot tapping the existing pipeline and welding of the pipe section and flange. The price shall include all labor, piping material, fittings, valves, connection material, auxiliary materials, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 1.3 |  |  |  |
|  | Execution of All Construction Works for the Installation of the Fire Protection System. This includes casting of reinforced concrete (grade C 25/30) for the slab above the trench, with appropriate reinforcement. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Measurement and payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The price shall include the lump sumete execution of construction works. | 1.4 |  |  |  |
| Procurement, Delivery, and Installation of the Fire Protection System. This includes a fire protection unit designed based on the calculated flow rate, with both suction and discharge manifolds, and non-return valves on the discharge side. The scope also includes dismantling and reinstallation of the existing booster pump system (hydrophore) for the sanitary container water supply. Additionally, the scope includes procurement and installation of a cabinet for above-ground hydrant equipment (standing metal cabinet with dimensions 1080x540x200 mm), equipped with two fire hoses, two nozzles, a hydrant wrench, "ABC" wrench, and a "C" coupling wrench. The cabinet legs shall be embedded in concrete foundations. This position also includes connection of the above-ground hydrant to the pipeline. The price shall include all labor, materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 1.5 |  |  |  |
| **Hydrant network-Perazića do** | Preparation of the Technical Design for the Hydrant Network and Booster Pump Station for the Enclosed Area of theBreak Pressure Chamber and Regulation Block – Perazica Do. The protected zone covers an area of approximately 4.500 m². The scope of work includes the design and hydraulic calculation of the fire protection and potable water supply pipelines, as well as the booster pump station, in accordance with applicable standards and regulations. The design shall provide for above-ground hydrants, a fire hose cabinet with hoses and related equipment, and connection to the existing pipeline network. The price shall include all labor, computing and other equipment costs, costs of technical review and obtaining necessary approvals, as well as overhead expenses. The fee includes the lump sumete delivery of the technical documentation in analog format (3 hard copies), certified by the responsible designer and the design bureau, and one CD containing the technical design in PDF format along with open file formats (DWG, Excel, etc.). | 2.1 |  |  |  |
|  | Execution of All Construction Works for the Installation of the Hydrant Network, Including: Route marking and staking, cutting of concrete surfaces and restoration to original condition upon lump sumetion of installation works, mechanical and manual trench excavation for pipeline installation, sand bedding, backfilling, removal of excess material, procurement, transport, and installation of C 16/20 concrete for thrust blocks beneath hydrants and pipelines within the valve chamber, wall coring in the valve chamber, sealing of openings after pipe installation, and waterproofing repairs. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The billing includs the lump sumete execution of construction works. | 2.2 |  |  |  |
|  | Procurement, Transport, and Installation of High-Density Polyethylene (HDPE) Pipes of the Designed Diameter and PN 10 Pressure Rating for the Fire Protection and Sanitary Water Pipelines. Following installation, the pipelines shall be tested at the prescribed test pressure. Upon successful testing, the entire pipeline shall be flushed, disinfected, and water samples taken for chemical and bacteriological analysis. This item also includes the procurement and installation of a steel pipe section matching the diameter of the HDPE pipeline, as well as the connection of the hydrant network to the existing DN700 mm steel pipeline within the reservoir valve chamber. This includes hot tapping the existing pipeline and welding of the pipe section and flange. The price shall include all labor, piping material, fittings, valves, connection material, auxiliary materials, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 2.3 |  |  |  |
|  | Execution of All Construction Works for the Installation of the Fire Protection System. This includes casting of reinforced concrete (grade C 25/30) for the slab above the trench, with appropriate reinforcement. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Measurement and payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The price shall include the lump sumete execution of construction works. | 2.4 |  |  |  |
|  | Procurement, Delivery, and Installation of the Fire Protection System. This includes a fire protection unit designed based on the calculated flow rate, with both suction and discharge manifolds, and non-return valves on the discharge side. The scope also includes dismantling and reinstallation of the existing booster pump system (hydrophore) for the sanitary container water supply. Additionally, the scope includes procurement and installation of a cabinet for above-ground hydrant equipment (standing metal cabinet with dimensions 1080x540x200 mm), equipped with two fire hoses, two nozzles, a hydrant wrench, "ABC" wrench, and a "C" coupling wrench. The cabinet legs shall be embedded in concrete foundations. This position also includes connection of the above-ground hydrant to the pipeline. The price shall include all labor, materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 2.5 |  |  |  |
| **Hydrant network-Sv. Stefan** | Preparation of the Technical Design for the Hydrant Network and Booster Pump Station for the Enclosed Area of theBreak Pressure Chamber and Regulation Block – Sveti Stefan. The protected zone covers an area of approximately 1.500 m². The scope of work includes the design and hydraulic calculation of the fire protection and potable water supply pipelines, as well as the booster pump station, in accordance with applicable standards and regulations. The design shall provide for above-ground hydrants, a fire hose cabinet with hoses and related equipment, and connection to the existing pipeline network. The price shall include all labor, computing and other equipment costs, costs of technical review and obtaining necessary approvals, as well as overhead expenses. The fee includes the lump sumete delivery of the technical documentation in analog format (3 hard copies), certified by the responsible designer and the design bureau, and one CD containing the technical design in PDF format along with open file formats (DWG, Excel, etc.). | 3.1 |  |  |  |
|  | Execution of All Construction Works for the Installation of the Hydrant Network, Including: Route marking and staking, cutting of concrete surfaces and restoration to original condition upon lump sumetion of installation works, mechanical and manual trench excavation for pipeline installation, sand bedding, backfilling, removal of excess material, procurement, transport, and installation of C 16/20 concrete for thrust blocks beneath hydrants and pipelines within the valve chamber, wall coring in the valve chamber, sealing of openings after pipe installation, and waterproofing repairs. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The billing includs the lump sumete execution of construction works. | 3.2 |  |  |  |
|  | Procurement, Transport, and Installation of High-Density Polyethylene (HDPE) Pipes of the Designed Diameter and PN 10 Pressure Rating for the Fire Protection and Sanitary Water Pipelines. Following installation, the pipelines shall be tested at the prescribed test pressure. Upon successful testing, the entire pipeline shall be flushed, disinfected, and water samples taken for chemical and bacteriological analysis. This item also includes the procurement and installation of a steel pipe section matching the diameter of the HDPE pipeline, as well as the connection of the hydrant network to the existing DN700 mm steel pipeline within the reservoir valve chamber. This includes hot tapping the existing pipeline and welding of the pipe section and flange. The price shall include all labor, piping material, fittings, valves, connection material, auxiliary materials, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 3.3 |  |  |  |
|  | Execution of All Construction Works for the Installation of the Fire Protection System. This includes casting of reinforced concrete (grade C 25/30) for the slab above the trench, with appropriate reinforcement. The price shall include all labor and materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. Measurement and payment shall be based on the bill of quantities and actual executed works as per the as-built condition. The price shall include the lump sumete execution of construction works. | 3.4 |  |  |  |
|  | Procurement, Delivery, and Installation of the Fire Protection System. This includes a fire protection unit designed based on the calculated flow rate, with both suction and discharge manifolds, and non-return valves on the discharge side. The scope also includes dismantling and reinstallation of the existing booster pump system (hydrophore) for the sanitary container water supply. Additionally, the scope includes procurement and installation of a cabinet for above-ground hydrant equipment (standing metal cabinet with dimensions 1080x540x200 mm), equipped with two fire hoses, two nozzles, a hydrant wrench, "ABC" wrench, and a "C" coupling wrench. The cabinet legs shall be embedded in concrete foundations. This position also includes connection of the above-ground hydrant to the pipeline. The price shall include all labor, materials, auxiliary equipment, use of machinery, tools and equipment, consumables and other materials, mobilization and demobilization of equipment, and securing of the construction site. | 3.5 |  |  |  |