REQUEST FOR BIDS

Project Name: Fire Hydrant Flow Testing and Maintenance

Project Location: BJWSA Service Area

Date of Request: September 18, 2019

The Beaufort Jasper Water and Sewer Authority hereby requests your consideration in submitting a bid to perform the following scope of work in accordance with the conditions set forth below. This bid form should be filled out in its entirety to include tabulated cost, contractor assumptions and exceptions, and signed by an officer (or signatory power) of the company.

Sealed bids are due to BJWSA on September 25, 2019 by 2pm

Bids can be delivered to:
BJWSA
Attn: Tammy Holman, CPPB
6 Snake Rd
Okatie, SC 29909
Ref: FY20 Hydrant Flushing Bid

Project Scope:

The Beaufort-Jasper Water & Sewer Authority (BJWSA) has decided to pursue the professional services to complete fire hydrant flow testing and maintenance. The scope of work will consist of flow testing, cleaning, painting, and clearing of weeds and debris to insure that each hydrant is in a serviceable condition. Currently there are 7993 hydrants within BJWSA's service area. The contract will be for the flow testing and maintenance of 7993 hydrants averaging 667 a month.

Within one years' time, each fire hydrant will be flow tested to determine the current availability of water supply. The information derived from these test will be recorded using real time data entry system currently used by BJWSA. It will be the responsibility of the contractor to procure the appropriate tablet or mobile device to upload the program for data gathering and all applicable testing equipment.

It shall be understood that this Request for Bid is a request for information only, and is not to be construed as an instruction or agreement to execute the work. If, after review of your bid, that BJWSA elects to proceed with this bid, a Master Service Agreement and Purchase Order will be issued.

Safety and Procedures:

Safety is of utmost importance to BJWSA and all safety measures shall be executed to the satisfaction of BJWSA.

Hydrant flow testing procedures will follow BJWSA SOP on hydrant flow testing. (Hydrant Flow Testing SOP attached). All flushing will be unidirectional unless other arrangements have been made with the Utility Compliance Supervisor. In the event of peak demand, flowing may be restricted to certain areas of the system. Contractor will coordinate all flowing activities with the Utility Compliance Supervisor on a daily basis.

BID FORM

Pricing shall be based on a per hydrant bases.

a) Cost per unit for flow testing.
b) Cost per unit for foliage removal.
c) Cost per unit for painting. (Hydrants that are not the color of BJWSA specification are the responsibility of the development where hydrant is located to paint).

Description	Quantity	Units	Unit Cost	Extended Cost
Hydrant Flow Testing	7993	Each		
Add work as defined:				
Foliage Removal	1000	Each		
Painting	1000	Each		
			Total Cost	

BJWSA reserves the right to accept/reject any or all bids as well as adjust line item totals with the low bidder to remain within project budget restrictions.

Contractor Assumptions and Exceptions:

Submitted By:

BY: _____

(Signature)

Title: _____

The Beaufort Jasper Water & Sewer Authority will open sealed Bids at 2:00 pm, local time, on September 25, 2019 at Beaufort Jasper Water & Sewer Authority, 6 Snake Road, Okatie, South Carolina for the Fire Hydrant Flow Testing and Maintenance Project.

All bidders must submit a sealed bid before the bid opening deadline.

Questions: All questions regarding this project should be sent in writing to the attention of: Justin Thomas, via e-mail: **justin.thomas@bjwsa.org / cc: tammy.holman@bjwsa.org**. The deadline for questions is September 23, 2019.

Beaufort-Jasper Water & Sewer Authority ***Standard Operating Procedures***	***Section:***	***Revised:***	***Number:***
	Approval:	***Date:***	***Pages:***
	Joe DeVito	**October 7 2014**	**5**

Subject:

Hydrant Flow Testing

1. **Table of Contents – N/A**
2. **Scope and Applicability –** These procedures would apply to the Field Operations Personnel when flow testing fire hydrants. To help ensure public safety, the data is used to assess the pressure and flow available for fire protection, sprinkler system design and proper sizing of domestic/fire service lines. This data is also used to determine if a weak hydrant is the result of an obsolete or degraded hydrant installation or mechanical problem or whether the water main itself is performing poorly. This information is useful as well to engineers when evaluating distribution system upgrade needs, capacity for expansion or for identification of weak distribution areas.
3. **Summary of Method –** Identify the hydrant, locate in the field, flow hydrant, document the data, and restore the hydrant to normal operating status.
4. **Definitions – N/A**
5. **Health & Safety Warnings –** Special attention, alertness and precaution needs to be focused on: Employees' safety, Public Safety, PPE Requirements are Met, Work Zone Safety is observed, Traffic Control if needed, Avoiding Property Damage, & Avoiding Traffic impediments
6. **Cautions –** Hydrants are usually located along roadways or within populated neighborhoods. It is imperative special attention is made to the traffic in the area. The field operator must park in an area that is safe for them and others traveling in

the area. The field operator must place cones around their truck and make sure they are wearing the appropriate PPE (steel toes, gloves, safety glasses). Also the field operator needs to be cautious of wildlife or insects in the area as well as changing weather conditions.

7. **Interference – N/A**
8. **Personnel Qualifications/Responsibilities -** Field Operations is responsible for hydrant flowing and testing. Each individual must meet the minimal experience and qualifications outlined in the BJWSA approved job descriptions.
9. **Equipment and Supplies-** Equipment needed includes a hydrant diffuser, pressure gauges, hydrant wrench, pitot gauge, valve wrench, and safety cones. May also need a Hose Monster and traffic control supplies. We currently have 3 different types of hydrant wrenches pictured below.

Standard

Ratcheting

Battery Powered

10. **Procedures**

1. Send an email to Water Quality group with details as to where you are flowing.
2. Identify the hydrant to be flowed. If possible, verify location is accurate on GIS mapping.
3. Verify all inventory details (manufacturer, operating status, manufacture date, direction to open or if there is a hydrant valve) in Lucity are correct for the hydrant.

4. Observe the area around the hydrant to determine which way will be the best to flow the water to avoid damage to property and to avoid interference with traffic.

5. Remove both 2 ½” pumper caps.


6. Install static gauge on one side and hydrant test valve in the open position with diffuser on other side.

Static/Residual

Hydrant Test Valve Diffuser/Pitot

7. Confirm the direction of operation on the hydrant.
8. Clear any debris from hydrant barrel before taking reading. Slowly open the hydrant until the water comes out of hydrant test valve. This should take approximately 10 turns.
9. Flush until the water runs clear.
10. Close the hydrant test valve and then open the hydrant all the way.
11. After the hydrant is fully open, bleed the air off the static gauge and record your static pressure. At this point, there is no water flowing from the diffuser. The static reading represents the water pressure in water main as measured at the elevation of the hydrant outlet.
12. Next open the hydrant test valve fully. Water will be flowing at full force now, so adjust the diffuser if needed to avoid damage or to avoid interference to traffic.

13. Once the hydrant test valve is fully open and the pressure has settled, record the residual pressure on the static gauge and then pitot pressure on the pitot gauge. The residual pressure records both the domestic demand and fire flows occurring in the water main. The pitot is measuring the velocity pressure of the stream discharging from the flow hydrant.
14. Once both readings are recorded, close the hydrant test valve assembly.
15. Check the static reading to make sure there was no drastic change. This could indicate a main that broke during the test.
16. SLOWLY close the hydrant.
17. Remove the static gauge and hydrant test valve assembly.
18. Replace the caps on the hydrant.
19. Inspect the area for any leaks or damage.