



LARGE WATER METERS – ANNUAL CONTRACT

EVENT NO. 6583

SPECIFICATIONS AND SPECIAL CONDITIONS

- 4.0 The purpose of these specifications is to describe requirements the new large water meters which are cold water type with hermetically sealed and magnetically driven registers to be utilized by Water Distribution of the Conveyance and Distribution Division.

Meters shall be the first line, heavy duty quality of the manufacturer. The latest specifications of the AWWA shall be complied with, except in cases of conflict with these specifications contained herein. Any type or make of water meter offered must have been manufactured and marketed in the U.S. for at least five (5) years and evidence will be required to indicate the name of location where meters have established satisfactory services records of five (5) years or more.

To submit pricing electronically for this event, enter pricing for each line item shown under the lines tab on the event summary. To enter pricing manually, complete the attached bid proposal form. Manually submitted bids must be submitted on the bid proposal forms contained in these specifications in order to be considered.

A pre-bid conference has been scheduled to be conducted at the Purchasing Office, 1375 Chatham Parkway, 2nd floor, Savannah, Georgia 31405. This meeting will allow contractors to discuss the specifications and resolve any questions and/or misunderstandings that may arise with City staff. You are invited to attend.

- 4.1 New Meters

Meters should meet all specifications applicable per AWWA C-701, C-702, and C-703 for cold water meters; and AWWA C-715-18 for Cold water meters – electromagnetic and ultrasonic type.

Meters shall be certified for conformance with National Sanitation Foundation American National Standards Institute Standard 61 by an ANSI accredited third party as required in Georgia rules for Safe Drinking Water Chapter 391-3-5-.04(8)b effective January 1, 1998. Meter cert-files shall be e-mailed electronically on spreadsheet providing the test report, serial number, encoded register number, and radio module number when applicable.

AMR and AMI meters shall have connectivity with the City's Badger Orion Radio-Read and Badger Beacon Orion Cellular AMI systems.

- 4.2 Main Cases

4.2.1 Water Meters Ranging in Size from two inches (2") to ten inches (10").

The register housing shall meet AWWA specifications with lid securely pinned to housing. Upper meter housing shall be made of high-grade no lead water works bronze per AWWA specifications. Main meter housing shall be of high-grade no lead waterworks bronze per AWWA specifications with test plug. When required by manufacturer, the external strainer shall be of high-grade no lead waterworks bronze or fabricated steel with fusion bonded epoxy coating. Bolt type connections are required with flanges, bolts, and gaskets.

4.2.2 Water Meters Ranging in Size from two inches (2") to ten inches (10") Fire Flow (ULFM)

Register housing shall meet AWWA specifications with lid securely pinned to housing. Upper meter housing shall be made of high-grade no lead water works bronze per AWWA specifications. Main meter housing shall be of high-grade waterworks bronze or ductile iron with fusion bonded epoxy coating per AWWA specifications. Bolt flange type connections provided with flanges, bolts, strainer, and test plug. When required by manufacturer, the external strainer shall be made of high grade no lead bronze or cast iron with fusion bonded epoxy coatings is required with studs, nuts, and gaskets when not provided in the meter housing.

Detector check assembly required.

4.2.3 Three inches (3") Fire Hydrant Water Meter

Meters must have Bronze register cover with a set of standard two and one-half inches (2-1/2") NST thread; one (1) male, one (1) female fire hose couplings with a strainer and lifting handles. Meter must comply with AWWA Standard.

4.3 Water Meters - Features

- 4.3.1 All meters must have the manufacturer's number permanently imprinted on top of the lid and upper housing or meter main case. Duplication of new or existing meter numbers will not be allowed.
- 4.3.2 Meters must all have a working pressure of 150 PSI.
- 4.3.3 All meters shall have strainers provided which fit tightly against the main case when it is recommended by the manufacturer.
- 4.3.4 All meters must be provided with a test port for meter testing accuracy.

4.4 Measuring Chambers

4.4.1 Water Meters Ranging in Size from two inches (2") to ten inches (10") AWWA Latest Revision

The measuring chamber shall be made of polymer or bronze per AWWA specifications.

4.4.2 Features

- a. The chamber may be of the two (2) piece design, equipped with a disc or piston of hard rubber or suitable synthetic polymer and as near to the specific gravity of water as possible.
- b. Discs or piston may be of the three (3) piece design or the thrust roller type.

- c. Chambers may have a dove tail insert.

4.5 Register for All Sizes of Water Meters

- 4.5.1 The direct read register for all direct read water meters shall be straight reading U.S. cubic feet type. Any digit below 100 cubic feet shall be of contrasting color or with segmented lines to indicate 100 cubic feet. The register assembly shall be encased in a permanently hermetically sealed bronze or non-corrosive housing and shall be tamper proof. The register shroud and lid shall be constructed of engineered polymer.
- 4.5.2 The Automated Meter Reading (AMR) and Advanced Meter Infrastructure (AMI) encoded register heads shall be encased in a permanently hermetically sealed bronze or non-corrosive housing and shall be tamper proof. The register shroud and lid shall be constructed of engineered polymer. All 5/8 inch by 3/4 inch to 1 1/2 inch meters shall be provided with AMR high resolution (HRE) absolute encoded register with three foot (3') length three (3) wired configuration sealed and potted from the factory. The register housing design must also include an Orion AMR transmitter as one (1) integral piece. All two inch (2") and above meters shall be provided with high resolution absolute encoded AMR or AMI register with 25 foot length three (3) wired configuration sealed potted from the factory with a NICOR cable and connector. All AMR or AMI registers must be compatible and adaptable with the City's Orion AMR Drive-by radio or the City's Badger Beacon Orion Cellular LTE AMI system. All high resolution encoders shall be capable of transmitting a minimum of eight (8) dials of resolution and must be able to be read and translated for the Beacon AMA and Eye-on-Water apps.
- 4.5.3 The transparent dial cover lens shall be of high-strength material to minimize scratching and resist breakage.
- 4.5.4 The registers on all meters shall be specified with warranty guarantee and to be free from defects in materials and workmanship for a period specified in years from date of shipment. The warranty will be factored into the overall price of the meters.
- 4.5.5 The Orion compatible registers must be provided with warranty information.
- 4.5.6 The Orion AMR radio module and the Badger Beacon LTE AMI Cellular Module must be provided with warranty information.

4.6 Registration Accuracy

Meters shall meet the following requirements for accuracy with water at a temperature less than 80°F (27°C).

Normal flow limits - at any rate of flow within the normal test flow limits specified below, the meter shall register not less than 98.5% and not more than 101.5% of the water that actually passes through it.

4.7 Performance Characteristics

Meter size In.	Safe Maximum Operating Capacity gpm.	Maximum Pressure Loss at Safe Maximum Operating Capacity	Recommended Maximum Rate for Continuous Operations gpm.	Min. Test Flow gpm.	Normal Test Flow Limits gpm.	Max No. of Disc Rotation or Piston Oscillations per 10 gal. cu ft.
5/8	20	13	10	1/4	1 – 20	580 435
5/8 x 3/4	20	13	10	1/4	1 – 20	580 435
3/4	30	13	15	1/2	2 – 30	333 250
1	50	13	25	3/4	3 – 50	153 115
1-1/2	100	15	50	1-1/2	5-100	67 50
2	160	15	80	2 .25	8.50-160	40 30
3	300	15	150	4 .50	161.-300	20 15
4	500	15	250	7 1.0	283-500	9.3 7
6	1000	15	500	12 2.0	5-1000	4 3
8	3500	15	1750	4.0	10- 3500	N/A
10	5500	15	2750	5.0	15-5500	N/A

- 4.8 The successful bidder must be capable of providing full service for meters in the total range of sizes set forth in this bid specification.
- 4.9 The successful bidder(s) must provide a minimum of one (1) hour training to water distribution staff for each section (A, B, C) they are awarded. This training will include instruction on basic maintenance, meter applications (of the type awarded in their section), and installation procedures. Training will be scheduled through the Water Operations Administrator and conducted at 706 Stiles Avenue, Savannah Georgia 31415.

- 4.10 Standard factory warranties will apply to all water meters furnished under this contract. The successful bidder(s) must personally visit the Water Distribution staff on a quarterly basis to assure compliance and to collect and/or ship defective meters under warranty for repair or replacement. Each successful bidder must sign in with the Water Distribution administrator during each visit.
- 4.11 Each successful bidder must supply a standard parts list and cost of parts with the bid for all meters awarded in this contract.
- 4.12 Prices submitted shall be F.O.B. Central Warehouse, 1100 West Gwinnett Street Building C, Savannah, Georgia 31415 or F.O.B. Water Distribution, 706 Stiles Avenue, Savannah, Georgia 31415. Quantities stated in these specifications are based on prior usage and are **estimates only**. The City reserves the right to purchase more or less than the estimated quantities.
- 4.13 Bid prices must remain firm for the duration of the contract.
- 4.14 All pricing must include freight.
- 4.15 The City reserves the right to split the bid award by category (parts A, B, and C) provided it is in the City's best interest. The basis for award of any portion or the entire bid will be the product complying with specifications with the lowest net cost to the City.
- 4.16 This is an annual contract and prices are to be held firm. The first term shall begin on the date of award and end one year after on December 31, 2019. This agreement may be renewed for up to two (2) additional twelve (12) month periods, if all contracting parties so agree and services provided by the vendor have been satisfactory.

5.0 General Conditions

5.1 The bid response must include the following documents in this order:

- Bid Proposal Form (as a cover sheet)
- Exception Sheet
- Non-Discrimination Statement
- Other submittals as stated

All referenced documents must be completed and returned in their entirety to constitute a complete bid.

5.2 Original invoices should be sent to:

City of Savannah
Accounts Payable
P.O. Box 1027
Savannah, Georgia 31402

5.3 The vendor is responsible for determining and acknowledging any addenda issued in connection with this bid solicitation. All addenda issued for this event must be acknowledged in order for a bid to be considered.

- 5.4 To be awarded bids, vendors must be registered as suppliers on the City of Savannah's website at www.savannahga.gov.
- 5.5 This contract will be awarded to the vendor offering the lowest net price to the City, and meeting or exceeding all specifications herein.

EXCEPTION SHEET

Event # 6583

If the commodity(ies) and/or services proposed in the response to this bid is in anyway different from that contained in this proposal or bid, the bidder is responsible to clearly identify by specification section number, all such differences in the space provided below. Otherwise, it will be assumed that bidder's offer is in total compliance with all aspects of the proposal or bid.

Below are the exceptions to the stated specifications:

Date

Signature

Company

Title

BID PROPOSAL FORM

(SUBMIT AS THE COVER SHEET)

City of Savannah Purchasing Department
1375 Chatham Parkway
2nd floor
Savannah, Georgia 31405
ATTN: Purchasing Director

EVENT NUMBER: 6583

Business Location: (Check One)
 Chatham County
 City of Savannah
 Other

ALL BIDDERS MUST BE REGISTERED VENDORS ON THE CITY'S WEBSITE TO BE AWARDED AN EVENT. PLEASE REGISTER AT WWW.SAVANNAHGA.GOV.

MANUALLY SUBMITTED BIDS MUST BE SUBMITTED ON THIS BID PROPOSAL FORM IN ORDER TO BE CONSIDERED.

Name of Bidder: _____

Street Address: _____

City, State, Zip Code: _____

Phone: _____ Fax: _____

Email: _____

DO YOU HAVE A BUSINESS TAX CERTIFICATE ISSUED IN THE STATE OF GEORGIA? (CHECK ONE) YES: _____ NO: _____

**FROM WHAT CITY/COUNTY _____
TAX CERTIFICATE #: _____ FED TAX ID #: _____**

**INDICATE LEGAL FORM OF OWNERSHIP OF BIDDER (STATISTICAL PURPOSES ONLY):
CHECK ONE: _____ CORPORATION _____ PARTNERSHIP
_____ INDIVIDUAL _____ OTHER (SPECIFY: _____)**

**Do you plan to subcontract any portion of this project? Yes _____ No _____
If yes, please complete the attached schedule of DBE participation. Also complete the schedule if you will be using any DBE suppliers.**

ADDENDA ACKNOWLEDGEMENT

My signature below confirms my receipt of all addenda issued for this proposal.

Signature

***This acknowledgement is separate from my signature on the fee proposal form. My signature on the fee proposal form will not be deemed as an acknowledgement of addenda.**

THE UNDERSIGNED PROPOSES TO FURNISH THE FOLLOWING ITEMS IN STRICT CONFORMANCE TO THE BID SPECIFICATIONS AND BID INVITATION ISSUED BY THE CITY OF SAVANNAH FOR THIS BID. ANY EXCEPTIONS ARE CLEARLY MARKED IN THE ATTACHED COPY OF BID SPECIFICATIONS.

ITEM NO	DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
1	a) 2" meter w/flanges, gaskets, connections & external strainer reading register high resolution absolute encoder with 25 ft. NICOR cable and connector	50		
2	b) 3" meter w/flanges, gaskets, connections & external strainer reading register high resolution absolute encoder with 25 ft. NICOR cable and connector	15		
3	c) 4" meter w/flanges, gaskets, connections & external strainer reading register high resolution absolute encoder with 25 ft. NICOR cable and connector	10		
4	d) 4" ULFM meter w/flanges, gaskets, connections & strainer reading register high resolution absolute encoder with 25 ft. NICOR cable & connector	10		
5	e) 6" meter w/flanges, gaskets, connections & external strainer reading register high resolution absolute encoder with 25 ft. NICOR cable & connector	10		
6	f) 6" ULFM meter w/flanges, gaskets, connections & strainer reading register high resolution absolute encoder with 25 ft. NICOR cable & connector	10		
7	g) 8" meter w/flanges, gaskets, connections & external strainer reading register high resolution incoder absolute encoder with 25 ft. NICOR cable & connector	5		

8	h) 8" ULFM meter w/flanges, gaskets, connections & strainer reading register high resolution absolute encoder with 25 ft. NICOR cable & connector	5		
9	i) 10" meter w/flanges, gaskets, connections & external strainer reading register high resolution incoder absolute encoder with 25 ft. NICOR cable & connector	5		
10	h) 10" ULFM meter w/flanges, gaskets, connections & strainer reading register high resolution absolute encoder with 25 ft. NICOR cable & connector	5		
11	i) 3" Fire Hydrant Meter w/ standard NST treads, bronze male & female couplings, direct read	36		
	PART B:			
12	Hersey Encoded Register adaptable to Orion Module and plotted from factory with three wire configuration with 25 ft. NICOR cable & connector For : 2"- & 10" meters	50		
13	Badger HRE-LCD Encoded Register adaptable to Orion Module and potted from factory with three wire configuration with 25 ft. NICOR cable & connector for : 2"- & 10" meters	120		
14	Neptune Encoded Register adaptable to Orion Radio Module and plotted from factory with three wire configuration with 25 ft. NICOR cable & connector for 2"- & 10" meters	50		
15	Sensus (Rockwell) etc. Encoded Register adaptable to Orion Radio Module and plotted from factory with three wire configuration with 25 ft. NICOR cable & connector For : 2"- & 10" meters	50		

TOTAL BID \$ _____

PAYMENT TERMS: PLEASE CHECK ONE AND FILL IN BLANKS
(Minimum of 10 working days must be allowed for discount to be considered in bid award)

___ Less ___ % ___ Days Prompt Payment Discount (if offered) (_____)

___ Net - 30 Days (no discount offered) - 0 -

TOTAL NET BID \$

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TIME REQUIRED FOR DELIVERY AFTER RECEIPT OF ORDER: _____ DAYS

WHAT IS THE WARRANTY GUARANTEE ON THE METERS? _____

I certify this bid complies with the General and Specific Specifications and Conditions issued by the City except as clearly marked in the attached copy.

Please Print Name

Authorization Signature

Date

CONTRACTOR AFFIDAVIT AND AGREEMENT
Employment Eligibility Verification

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Savannah has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract with the City of Savannah, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the City of Savannah at the time the subcontractor(s) is retained to perform such service.

EEV / Basic Pilot Program* User Identification Number

BY:

Contractor Name

Date

Signature of Authorized Officer or Agent

Printed Name of Authorized Officer or Agent

Title of Authorized Officer or Agent of Contractor

*As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV / Basic Pilot Program" operated by the U. S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

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Instructions for Completing Contractor Affidavit and Agreement Form

As required under Senate Bill 529 – “Georgia Security and Immigration Compliance Act” of 2006, O.C.G.A. Section 2, Article 3 13-10-91, public employers, their contractors and subcontractors are required to verify the work eligibility of all newly hired employees through an electronic federal work authorization program. The Georgia Department of Labor has added a new Chapter 300-10-1, entitled "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," to the Rules and Regulations of the State of Georgia. (See website: http://www.dol.state.ga.us/pdf/rules/300_10_1.pdf.) The new rules designate the “Employment Eligibility Verification (EEV) Basic Pilot Program” operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security as the electronic federal work authorization program to be utilized for these purposes. The EEV/Basic Pilot Program can be accessed at: <https://verify.uscis.gov/enroll/StartPage.aspx?JS=YES>. Bidders shall comply with this new rule and submit with your bid the attached “Contractor Affidavit and Agreement.”

Affidavit Verifying Status for City of Savannah Benefit Application

By executing this affidavit under oath, as an applicant for a City of Savannah, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, Contract or other public benefit as reference in O.C.G.A. Section 50-36-1, I am stating the following with respect to my bid for a City of Savannah contract for _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1.) _____ I am a citizen of the United States.

OR

2.) _____ I am a legal permanent resident 18 years of age or older.

OR

3.) _____ I am an otherwise qualified alien (8 § USC 1641) or nonimmigrant under the Federal Immigration and Nationality Act (8 USC 1101 *et seq.*) 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: _____ Date _____

Printed Name: _____

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
____ DAY OF _____, 20____

* _____
Alien Registration number for non-citizens.

Notary Public
My Commission Expires:

***Instruction for Completing Systematic Alien Verification
for Entitlement (SAVE) Form***

O.C.G.A. § 50-36-1, requires Georgia's cities to comply with the federal **Systematic Alien Verification for Entitlements (SAVE) Program**. SAVE is a federal program used to verify that applicants for certain "public benefits" are legally present in the United States. Contracts with the City are considered "public benefits." Therefore, the successful bidder will be required to provide the Affidavit Verifying Status for City of Savannah Benefit Application prior to receiving any City contract. The affidavit is included as part of this bid package but is only required of the successful bidder.