CITY OF ANN ARBOR
INVITATION TO BID

Commercial Water Meters

ITB No. 4408

Due Date: October 22, 2015 at 10:00 a.m. (Local Time)

Public Services Area
Field Operations Service Unit

Issued By:

City of Ann Arbor
Procurement Unit
301 E. Huron Street
Ann Arbor, MI 48104
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## ATTACHMENTS

- City of Ann Arbor Standard Purchase Order Terms and Conditions
- City of Ann Arbor Non-Discrimination Ordinance Declaration Form and Notice
- City of Ann Arbor Vendor Conflict of Interest Disclosure Form
INSTRUCTIONS TO BIDDERS

General
Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

Any Bid which does not conform fully to these instructions may be rejected.

Preparation of Bids
Bids should be prepared providing a straight-forward, concise description of the Bidder’s ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid. No alternative bid will be considered unless alternative bids are specifically requested. If alternatives are requested, any deviation from the specification must be fully described, in detail on an "Alternate" section of Bid form.

Each person signing the Bid certifies that he/she is the person in the Bidder’s firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participated in any action contrary to the terms of this provision.

Questions or Clarification on ITB Specifications
All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be due on or before October 15, 2015 @ 5:00 p.m. and should be addressed as follows:

Specification/Scope of Work questions emailed to CElenbaas@a2gov.org
Bid Process and HR Compliance questions emailed to CSpencer@a2gov.org

Any error, omissions or discrepancies in the specification discovered by a prospective contractor and/or service provider shall be brought to the attention of Colin Spencer, cspencer@a2gov.org after discovery as possible. Further, the contractor and/or service provide shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

Addenda
If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) www.mitn.info and/or City of Ann Arbor web site www.A2gov.org for all parties to download.
Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it has received, but the failure of a Bidder to receive, or acknowledge receipt of, any addenda shall not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

**Bid Submission**

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before **October 22, 2015 at 10:00 a.m.**. Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile will not be considered or accepted.

Each Bidder must submit one (1) original Bid and two (2) Bid copies in a sealed envelope clearly marked: **ITB No. 4408 – Commercial Water Meters**.

**Bids must be addressed and delivered to:**

```
City of Ann Arbor  
Procurement Unit,  
c/o Customer Services, 1st Floor  
301 East Huron Street  
P.O. Box 8647  
Ann Arbor, MI 48107
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All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

Hand delivered bids will be date/time stamped/signed by the Procurement Unit at the address above in order to be considered. Normal business hours are 9:00 a.m. to 3:00 p.m. Monday through Friday, excluding Holidays. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time for submission of bids past the stated due date and time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines in its sole discretion that circumstances warrant it.

**Award**

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the Contract will be awarded based upon the unit prices and the lump sum prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the...
general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.

The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing Bids, the City will give consideration to alternate Bids for items listed in the bid forms. All key staff and subcontractors are subject to the approval by the City.

Official Documents
The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on www.MITN.info and obtain an official Bid.

Taxes
Municipalities are exempt from Michigan State Sales and Federal Excise taxes. Do not include such taxes in the proposal figure. The City will furnish the successful bidder with tax exemption certificates when requested.

Withdrawal of Bids
After the time of opening, no Bid may be withdrawn for the period of sixty (60) days specified in the Advertisement.

Human Rights Information
All contractors proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor’s Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

Conflict Of Interest Disclosure
The City of Ann Arbor Purchasing Policy requires that prospective Vendors complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected Vendor unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may be awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Vendor Conflict of Interest Disclosure Form is attached.

Debarment
Submission of a Bid in response to this ITB is certification that the Bidder is not currently
debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

Disclosures
After bids are opened, all information in a submitter’s bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) known as the “Freedom of Information Act.” The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

Bid Protest
All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the intent to award action. The bidder must clearly state the reasons for the protest. If a bidder contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the bidder to the Purchasing Agent. The Purchasing Agent will provide the bidder with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

Cost Liability
The City of Ann Arbor assumes no responsibility or liability for costs incurred by the Bidder prior to the execution of a contract with the City. By submitting a bid, a bidder agrees to bear all costs incurred or related to the preparation, submission and selection process for the bid.

Reservation of Rights
The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.
INVITATION TO BID

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan  48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, City Nondiscrimination requirements, Vendor Conflict of Interest Form, Instructions to Bidders, Bid Forms, Purchase Order Terms and Conditions, General Conditions, Detailed Specifications, and all Addenda, and understands them. The Bidder declares that it conducted a full investigation of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered _______, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract. The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

(This Space Intentionally Left Blank)
SIGNED THIS _______ DAY OF ____________, 2015.

<table>
<thead>
<tr>
<th>Bidder’s Name</th>
<th>Authorized Signature of Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Official Address</th>
<th>(Print Name of Signer Above)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Telephone Number</th>
<th>Email Address for Award Notice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the State of ____________, for whom ____________________________, bearing the office title of ________________, whose signature is affixed to this Bid, is authorized to execute contracts.

   NOTE: If not incorporated in Michigan, please attach the corporation’s Certificate of Authority

• A limited liability company doing business under the laws of the State of ____________, whom ____________________________, bearing the title of ________________, whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

* A partnership, organized under the laws of the state of ____________ and filed in the county of ____________, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

* An individual, whose signature with address, is affixed to this Bid: ________________________________   (initial here)

Authorized Official

_________________________________________   Date ________________, 2015

(Print) Name _______________________________   Title _____________________________

Company: ____________________________________________________________________

Address: _____________________________________________________________________

Contact Phone ( ) ____________________   Fax ( ) _____________________________

Email _________________________________
1. Quantities of each meter size to be ordered is unknown.

2. All Bidders shall provide Unit Prices for either the Base Bid or Alternate Bid Items. If a specific meter size is unavailable, leave the unit price blank.

3. The City at their sole discretion may purchase a combination of products from the Base Bid items and the Alternate Bid Items.

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5/8&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>2</td>
<td>3/4&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>3</td>
<td>1&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>4</td>
<td>1-1/2&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>5</td>
<td>2&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>6</td>
<td>3&quot; Magnetic Water Meter</td>
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<td>$</td>
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<td>7</td>
<td>4&quot; Magnetic Water Meter</td>
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<td>$</td>
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<td>8</td>
<td>6&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>9</td>
<td>8&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>10</td>
<td>10&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>11</td>
<td>12&quot; Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>12</td>
<td>External Battery Pack</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>14</td>
<td>Programming Cable</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>15</td>
<td>Spare Display Converter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>16</td>
<td>Connection Conversion Kit</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>Item #</td>
<td>Description</td>
<td>Quantity</td>
<td>Unit</td>
<td>Unit Price</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------</td>
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<tr>
<td>1</td>
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<td>$</td>
</tr>
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<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>4</td>
<td>1-1/2” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>5</td>
<td>2” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
<tr>
<td>6</td>
<td>3” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
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<tr>
<td>7</td>
<td>4” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
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<td>8</td>
<td>6” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
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<td>9</td>
<td>8” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
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<tr>
<td>10</td>
<td>10” Magnetic Water Meter</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
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<td>14</td>
<td>Spare Display Converter</td>
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<td>$</td>
</tr>
<tr>
<td>15</td>
<td>Connection Conversion Kit</td>
<td>TBD</td>
<td>Each</td>
<td>$</td>
</tr>
</tbody>
</table>
All bidders must fill out the following table:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Local Representative/Distributor</th>
<th>Address of Local Representative</th>
<th>Distance from the City of Ann Arbor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

All Bidders must answer the following questions:

1. Has the manufacturer furnished meters to the City previously? If so, what year?

2. Would the bidder offer an extended guaranteed pricing period beyond two (2) years with no increase in cost?

   If so, how long?

3. What is the typical lead time from time of purchase to time of delivery?

4. Are meters stocked at the local representative's/distributor's facility? If so, what sizes and how many?
GENERAL CONDITIONS

QUANTITIES
Quantities stated are estimated and not guaranteed. The quantities stated will be used for award purposes only but were based up an average of actual usage for seasonal requirements.

Should the supplier’s pricing change based on varying quantities ordered at any one time (i.e. single unit, box or bulk purchase), documentation shall be attached to the bid showing the price differences.

DELIVERY
Materials are F.O.B. delivered, freight paid, to the City of Ann Arbor Wheeler Service Center at 4251 Stone School Road, Ann Arbor, MI 48108, unless the City elects to pick up the materials at bidder’s location.

APPROVED ALTERNATES
The City’s designated representative will review all items submitted for consideration as approved alternates. Their decision as to acceptability will be deemed in the City of Ann Arbor’s best interest and will be final.

DOWN PAYMENTS
Any bid proposal submitted which requires a down payment or prepayment of any kind prior to delivery and acceptance of the item, as being in conformance with the specifications will not be considered for award.

PURCHASE ORDER
After the Ann Arbor City Council has approved the award, the successful bidder will be issue a purchase order from the City of Ann Arbor, which will create a bilateral contract between the City and the successful bidder. The purchase order shall commit the bidder to perform the contract in accordance with the specifications, bid unit prices and the terms and conditions of the purchase order. A separate contract document will not be issued.

The terms and conditions of the Purchase Order are provided herein.

CONTRACT TERMINATION
The City of Ann Arbor reserves the right to terminate the contract upon 30 days written notice for any reason deemed to be in its best interest. For performance related issues, the City designated representative will be solely responsible for determining acceptable performance levels. His/her decision will be deemed in the City of Ann Arbor’s best interest and will be final.

CONTRACT TERM
The pricing provided under this ITB shall be firm for two (2) years from the date approved by City Council. City Council approval anticipated in December 2015.
DETAILED SPECIFICATIONS

MAGNETIC WATER METERS

PART 1 – GENERAL

1.1 SUMMARY OF WORK

A. This specification covers magnetic cold water meters in sizes 5/8”, 3/4”, 1”, 1-1/2”, 2”, 3”, 4”, 6”, 8”, 10” and 12”. Meters shall be manufactured in an ISO 9001 manufacturing facility located or assembled in the United States. Meters shall be NSF approved for potable water applications.

1.2 SUBMITTALS

A. O&M Manuals

1. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.

2. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of project, and subject matter of binder when multiple binders are required.

3. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.

4. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:

   a. Part 1: Directory, listing names, addresses, and telephone numbers of the supplier.

   b. Part 2: Operation and maintenance instructions arranged by meter size. Identify the following:
      1. Significant design criteria
      2. List of equipment
      3. Parts list for each meter
      4. Operating instructions
      5. Maintenance instructions for meters
      6. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
      7. Maintenance Schedule
      8. Troubleshooting procedures
      9. Spare parts

   c. Part 3: Project documents and certificates, including the following:
      1. Shop Drawings and product data
      2. Statement of Compatibility
      3. Programming Documentation
      4. Certifications
      5. Photocopies of warranties and bonds

5. Submit one (1) copy of completed volumes with the first shipment of the materials.

6. Submit five (5) sets of revised final volumes, within 10 days after receipt of OWNER/ENGINEER comments.
1.3 MANUFACTURER
A. Base Bid meters shall be model AquaMaster 3 manufactured by ABB.
B. Alternate bid meters shall be manufactured by Krohne, Sensus or Badger Meter and the model shall be equivalent in performance and features to the Base Bid meter.
C. If a manufacturer offers an alternative electromagnetic flow meter product for meters 1” and smaller, pricing for that product may be submitted under the alternate bid and a cut sheet for that product shall be included with the bid package.

1.4 WARRANTY
A. Meters shall be guaranteed free of defects in material and workmanship for a minimum of two (2) years after OWNER acceptance.

PART 2 – PRODUCTS
2.1 GENERAL
A. Meters shall be of the electromagnetic type.
B. The flow meter system shall operate on the principle of electromagnetic induction, with a pulsed DC excitation frequency, and shall produce a signal output that is directly proportional and linear with the volumetric flow rate of the liquid flowing through the metering tube.
C. The metering system shall have the ability to incorporate a meter mounted or remote mounted amplifier.
D. All meters shall be manufactured new
E. Prior to purchasing, manufacturer shall provide documentation that the meters are compatible with the OWNER’s automatic meter reading (AMR) system and meter transmission units (MTU). Documentation shall include, but is not necessarily limited to:
   1. Statement of compatibility with MTU
   2. Statement of programming characteristics
   3. Submit programming documentation
F. The manufacturer shall be responsible for familiarizing himself with the OWNER’s existing AMR system and shall be fully responsible for complete compatibility.

2.2 METERING TUBE
A. Metering tubes 1-1/2” and greater shall be of flanged design. Flanges shall be manufactured of carbon steel and rated for a maximum allowable non-shock pressure and temperature ratings for steel pipe flanges, according to the American National Standard ANSI B16.5 Class 150 Standards. Metering tubes less than 1-1/2” shall have NPSM threaded end connections.
B. Metering tube body shall be 304 stainless steel. Metering tube shall have an interior elastomer liner that is NSF 61 approved for potable water applications.
C. Metering tube electrodes shall be self-cleaning and manufactured of 316 stainless steel.
D. Metering tube shall be housed in an epoxy-coated NEMA 6P enclosure and shall be capable of continuous submergence in up to 30 feet of water.
E. Metering tube shall be provided with 316 stainless steel grounding rings.
A. The signal converter shall be housed in a NEMA 6P diecast aluminum enclosure and have the ability to be remotely or integrally mounted as specified or as indicated by the OWNER. If not specified the converter shall be remotely mounted and provided with sufficient signal cable to complete connection with no splices. The electronics shall be microprocessor controlled. A local display shall be provided capable of showing flow rate, totalization and diagnostic alarms. All operational parameters shall be user configurable via an integral pushbutton arrangement or via an external hand-held device/terminal. The 4-20 mA DC output signal proportional to flow shall be isolated and able to drive up to 800 ohm load. The unit shall be capable of accommodating unidirectional or bidirectional flow. Sensing of meter failure shall activate a user configurable zero or 100% output signal and failure alarm contact closure. An automatic empty pipe detector and low flow signal cutoff shall be provided. Signal converters shall be interchangeable without affect of meter accuracy or the need for recalibration. The signal converter if AC powered shall have a 5 day minimum power storage capability to collect water revenue during a power outage. Battery powered transmitters shall have a minimum 5 to 6 year battery life. When changing batteries, all totalizer and programming data shall be maintained. The totalizer data shall be redundantly stored in the sensor head as well as in the transmitter.

B. Calibration

1. Test Mode: Provide the ability to verify the accuracy of the unit and the integrity of the meter without any external equipment.

2. Self diagnostics: Internal checks of all outputs and displays.

3. Insitu Calibration Verification: This system shall be able to verify in a quantifiable manner the meters current conditions vs. the meters condition when originally manufactured. This calibration verification of the meter shall be performed without need for physical access to the meter flow tube. The calibration verification shall meet or exceed the following requirements:

   a. The verification process shall consist of at least 52 meter test conditions pertaining to the primary coils, electrodes, interconnecting cable and signal converter.

   b. The coil verification shall include tests for faults of continuity, impedance, and resistance to ground, inductance, and magnetic field strength.

   c. The electrode verification shall include tests for faults in the continuity, impedance and insulation.

   d. The cable verification shall include tests for faults in the coil, electrode, driven shield and ground connections, cable cuts, cable damage, and water in the cable.

   e. Signal converter verification shall include tests for faults of current supply to coils, zero offset, span forward and reverse, electrode offset, current output, frequency output: forward and reverse, driven shield to ground, overall shield to ground and signal ground connection to ground.

   f. The calibration verification shall include testing on the following: water ingress into the primary elements, faulty electrodes, dirty electrodes, electrode leakage, corroded electrodes, high process noise, liner failure, conductive coatings on the liner, insulating coatings on the liner, and primary element damage.

   g. All tests shall be performed by means of comparison between the absolute values and change in values from the new condition.
h. Verification standard shall certify flow meters to within +1% of the original factory calibration on meters ordered in advance with re-verification capability, or +2% for meters retrofitted in the field with re-verification capability.

i. The software shall be Microsoft Windows based. This software shall be capable of generating a report based upon the result of the forgoing described tests. The software shall be capable of creating and storing an audit trail of the meters conditions and the meters history.

j. The calibration verification and metering system shall meet or exceed the standards established by the National Testing Laboratories.

k. The original fingerprint values shall be stored on a computer disk given to the Owner.

2.4 PERFORMANCE

A. Meter accuracy shall be ± 0.25% of the flow rate for AC powered meters with capacitor backup and +/- 0.5% of rate for Battery powered meters.

B. Registers shall have a 3-wire connection capable of connecting to the OWNER’s MTU’s. Owner’s MTU model numbers are Aclara Single Port Encoder Model No. 3321-012-DB and Aclara Single Port Encoder Extended Range Model No. 3321-012-DBW.

C. Registers shall have the size, model and date of manufacture stamped on the dial face. Dial shall have a red sweep hand and the dial face shall have 100 equally divided graduations. Dial face shall display 1 cf for 5/8”, 3/4” and 1” meters. Dial face shall display 10 cf for 1-1/2” and 2” meters.

D. Register shall have a low flow indicator with a 1:1 ratio to either disc nutations or piston oscillations to provide leak detection.

E. Register shall have a minimum of six (6) totalizer wheels for dial reading. Totalizer wheels shall be large and color coded. Totalizer wheels shall display down to 10 cf for 5/8”, 3/4” and 1” meters. Totalizer wheels shall display down to 100 cf for 1-1/2” and 2” meters.

F. Register cup

1. For pit applications, the register cup shall be manufactured of copper to prevent corrosion. Register lens shall be manufactured of an impact resistant glass. Register box and lids shall be manufactured of a high-strength polymer.

2. For indoor applications, the register cup shall be manufactured of high strength polymer. Register lens shall be plastic. Register box shall be manufactured of a high-strength polymer.

2.5 EXTERNAL BATTERY PACK

A. External battery pack shall be ABB Model WABC2100, or equivalent for alternate bid manufacturer.

2.6 PROGRAMMING CABLE

A. Programming cable shall be ABB Model WEBC2100, or equivalent for alternate bid manufacturer.

2.7 SPARE DISPLAY CONVERTER

A. Spare display converter shall be ABB Model FET221.1.A0Y5G7S1M5 for AC powered meters and ABB Model FET221.1.A0Y5G5S1M5 for battery powered meters, or equivalent for alternate bid manufacturer.
2.8 CONNECTION CONVERSION KIT
A. Connection conversion kits from Aquamaster II to Aquamaster III meters shall be ABB Model WABC2035, or equivalent for alternate bid manufacturer.

2.9 PERFORMANCE
A. Meters shall register accuracy in accordance with AWWA C700. Meter accuracy shall be tested for low, normal and high flows. A factory tag certifying the accuracy of the meters at the specified AWWA C700 flows shall be provided with each meter.
B. Meters shall operate without leakage or damage to any part, nor loss in accuracy at a working pressure of up to 150 psi.

PART 3 – EXECUTION
3.1 STORAGE, HANDLING AND DELIVERY
A. The manufacturer shall deliver meters to the OWNER in a manner to ensure that no damage is done upon the meters. The manufacturer shall instruct the OWNER in the proper handling and storage of meters in accordance with the manufacturer’s operation and maintenance procedures.

END OF SECTION
City of Ann Arbor: General Terms and Conditions

The following General Terms and Conditions shall apply.

**Tax Exemption:** The City of Ann Arbor is tax exempt, ID# 38-6004534.

**Acceptance of Contract:** This order is the City’s contract to purchase the goods and services described on the reverse front side of this document from the Vendor. The City’s placement of this order is expressly conditioned upon the Vendor’s acceptance of all the terms and conditions of purchase contained on or attached to this purchase order. All specifications, drawings, and data submitted to the Vendor with this order are hereby incorporated and made part hereof.

**Amendments:** No agreement or understanding to modify this contract shall be binding upon the City unless in writing and signed by the City’s authorized agent.

**Delivery:** All prices must be F.O.B. delivery point. Time is of the essence on this contract. If delivery dates cannot be met, the Vendor agrees to advise the City, in writing of the earliest possible shipping date. The City reserves the right to cancel or purchase elsewhere and hold the Vendor accountable.

**Risk of Loss:** Regardless of F.O.B. point, the Vendor agrees to bear all risk of loss, injury, or destruction of goods and materials ordered herein which may for any reason occur prior to delivery or acceptance by the City, whichever is later. No such loss, injury, or destruction shall release the Vendor from any obligations hereunder.

**Inspection:** Goods and materials must be properly packaged. Damaged goods and materials will not be accepted. The City reserves the right to inspect the goods at a reasonable time subsequent to delivery where circumstances or conditions prevent effective inspection of the goods at the time of delivery. All rejected goods shall be returned to the Vendor at no cost to the City, whether the damage is readily apparent at the time of delivery or later. The City’s acceptance is conditioned on such inspection.

**Patents and Copyrights:** If an article sold and delivered to the City hereunder shall be protected by any applicable patent or copyright, the Vendor agrees to indemnify and save harmless the City’s acceptance is conditioned on such inspection.

**Uniform Commercial Code:** All applicable portions of the Michigan Uniform Commercial Code shall govern contracts for goods with the City of Ann Arbor, except as modified by contract documents.

**Non-waiver of Rights:** No failure of either party to exercise any power given to it hereunder or to insist upon strict compliance by the other party with its obligations hereunder, and no custom or practice of the parties at variance with the terms hereof, nor any payment under this agreement shall constitute a waiver of either party’s right to demand exact compliance with the terms hereof.

**Material Safety Data Sheets:** Applicable Material Safety Data Sheets, in compliance with OSHA/MIOSHA hazard communication regulations/standards, must be provided by the Vendor to the City at the time of purchase.

**Assignments:** The Vendor agrees not to assign or transfer this contract or any part thereof without the written consent of the City of Ann Arbor, acting through its authorized representative. Any unauthorized assignment may subject the contractor to immediate termination.

**Termination for Cause:** In the event the Vendor fails, at any time, to comply with, fully perform or strictly adhere to any covenant, condition or representation contained within the contract, the City shall have the right to give written notice to Vendor of such failure. If such failure is not cured to the City’s satisfaction within ten (10) business days from the time of delivery to Vendor of such notice, the City shall have the right to terminate immediately without the requirement of a further notice.

**Warranty:** The Vendor warrants to the City that all goods and services furnished hereunder will conform in all respects to the terms of this contract, including any drawings, specifications and standards incorporated herein. In addition, the Vendor warrants the goods and services are suitable for and will perform in accordance with the purposes for which they were intended.

**Payment Terms:** The City of Ann Arbor’s payment terms are net 30. The payment date will be calculated based on the invoice receipt date or delivery date, whichever is later.

**Payments:** All invoices for goods and services shall be emailed to accounts payable@cityofannarbor.org. Mail in invoices shall be addressed to the City of Ann Arbor, Accounts Payable, P.O. Box 8647, Ann Arbor, MI 48107, as indicated on the front of this purchase order. Invoices must include the Vendor’s name, phone number, and clearly listed item descriptions, quantities and units of measure. The Vendor acknowledges and understands that invoices not addressed as stated above shall have the net 30 begin once the invoice is received by Accounts Payable.

**Compliance with Laws:** The Vendor certifies that in performing this contract it will comply with all applicable provisions of Federal, State and Local laws, regulations, rules and orders.

**Laws Governing, Severability:** This contract shall be governed by and construed according to the laws of the State of Michigan. The Vendor agrees to submit to the jurisdiction and venue of the Circuit Court of Washtenaw County, MI, or if original jurisdiction is established, the U.S. District Ct. for Eastern District of MI, Southern Division. The Vendor stipulates venues referenced are convenient and waives any claim of non-convenience. If any term herein is found to be ineffective, unenforceable or illegal under any present or future laws, such term shall be fully severable, and the remaining terms shall not be affected and shall remain full force and effect.

**Prevailing Wage:** It shall be the responsibility of the Vendor to comply, when applicable, with the prevailing wage requirements and/or the Davis-Bacon Act as amended.

**Living Wage:** It shall be the responsibility of the Vendor to comply, when applicable, with the City of Ann Arbor’s Living Wage Ordinance as defined in Chapter 23, Section 1:811-1:821.

**Non-Discrimination:** It shall be the responsibility of the Vendor to comply, when applicable, with, all State, Federal and Local non-discrimination laws, including MCL 37.2209 and Section 9:158 of the City Code.

**Indemnification:** To the fullest extent permitted by law the Vendor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney’s fees resulting or alleged to result from any act or omission, associated with the performance of this contract by the Vendor or anyone acting on the Vendor’s behalf under this contract. The Vendor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City’s sole negligence. This indemnity survives delivery and acceptance of the Vendor’s goods and services.

**Warranty:** The Vendor warrants to the City that all goods and services furnished hereunder will conform in all respects to the terms of this contract, including any drawings, specifications and standards incorporated herein. In addition, the Vendor warrants the goods and services are suitable for and will perform in accordance with the purposes for which they were intended.

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CITY OF ANN ARBOR
DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The “non discrimination by city contractors” provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager.

The Contractor agrees:

(a) To comply with the terms of the City of Ann Arbor’s Non-Discrimination Ordinance and contract compliance administrative policy.

(b) To post the City of Ann Arbor’s Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.

(c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.

(d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

Company Name

__________________________
Signature of Authorized Representative  Date

__________________________
Print Name and Title

__________________________
Address, City, State, Zip

__________________________
Phone/Email address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

Revised 3/31/15 Rev. 0  NDO-2
CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below. You can review the entire ordinance at www.a2gov.org/departments/city-clerk

Intent: It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

Discriminatory Employment Practices: No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

Discriminatory Effects: No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

Nondiscrimination by City Contractors: All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

Complaint Procedure: If any individual has a grievance alleging a violation of this chapter, he/she has 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the alleged discriminatory action to file a complaint with the city's Human Rights Commission. If an individual fails to file a complaint alleging a violation of this chapter within the specified time frame, the complaint will not be considered by the Human Rights Commission. The complaint should be made in writing to the Human Rights Commission. The complaint may be filed in person with the City Clerk, by e-mail at aahumanrightscommission@gmail.com, or by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107). The complaint must contain information about the alleged discrimination, such as name, address, phone number of the complainant and location, date and description of the alleged violation of this chapter.

Private Actions For Damages or Injunctive Relief: To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

THIS IS AN OFFICIAL GOVERNMENT NOTICE AND MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.

2015 Rev. 0
Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor’s conflict interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

Certification: I hereby certify that to my knowledge, there is no conflict of interest involving the vendor named below:

1. No City official or employee or City employee’s immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor’s Company.
3. No City employee is contemproaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

<table>
<thead>
<tr>
<th>Vendor Name</th>
<th>Vendor Phone Number</th>
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<th>Conflict of Interest Disclosure *</th>
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</table>
| Name of City of Ann Arbor employees, elected officials, or immediate family members with whom there maybe a potential conflict of interest. | ( ) Relationship to employee  
| | ( ) Interest in vendor’s company  
| | ( ) Other |

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that the information provided is true and correct by my signature below:

Signature of Vendor Authorized Representative  
Date  
Printed Name of Vendor Authorized Representative

PROCUREMENT USE ONLY

☐ Yes, named employee was involved in Bid / Proposal process.

☐ No, named employee was not involved in procurement process or decision.