REQUEST FOR PROPOSAL

TO PROVIDE AND INSTALL NEW WATER METERS

AND ADVANCED METERING INFRASTRUCTURE (AMI)

IN JEFFERSON PARISH

Jefferson Parish
State of Louisiana

RFP No.: 0481

Proposal Receipt Date: April 18, 2024

Proposal Receipt Time: 3:30 p.m.

Jefferson Parish
Department of Purchasing
200 Derbigny Street, Suite 4400
Gretna, LA 70053

(504) 364-2678

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REQUEST FOR PROPOSAL

PROVIDE AND INSTALL NEW WATER METERS AND ADVANCED METERING INFRASTRUCTURE (AMI) IN JEFFERSON PARISH

1.1 Background

Jefferson Parish provides water services to approximately 160,588 active residential and commercial customers. The useful life of a water meter is 20 years, according to industry standards, and more than 50% of meters in Jefferson Parish are 20 years or older. As the meters age, they become less efficient, and the Parish is not capturing all revenue based on the amount of water that flows through the existing meters. Therefore, Jefferson Parish Water Department would like to move forward with implementing the replacement of all water meters in Jefferson Parish as well as install an Advanced Metering Infrastructure (AMI) system. Per the American Water Works Association (AWWA), Advanced Metering Infrastructure (AMI) is an integrated system of meters and information systems that enables communication between meters and utilities. The AMI system will allow the Parish to remotely read the water meters as well as improve communication with customers who will have access via computer or cell phone to their water consumption data.

Jefferson Parish has secured the funding for a full implementation of an AMI system with replacement of all water meters detailed in this RFP via a dedicated bond issue with a 20-year payback at a favorable interest rate. Vendor financing for this project is not an option.

For 5/8” x3/4” and 1” residential meters which comprise over 96% of the required meter replacements, Jefferson Parish has elected to install positive displacement meters with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register equipped with a Nicor connector which enables connection to a battery powered radio transmitter. All 2” meters shall be replaced with a positive displacement or compound meter depending on the existing type of meter which shall have a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register equipped with a Nicor connector. All commercial meters sizes 3” or greater shall be replaced with a turbine or compound meter depending on the existing type of meter which shall have a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register equipped with a Nicor connector.

Jefferson Parish is below sea level and has a high-water table. The life of the housing will be spent submerged under water or in poor and wet soil conditions. Brass, bronze alloy, or epoxy coated ductile iron housings with metal threads have been proven to withstand the conditions in Jefferson Parish for greater than 25 years and to withstand complete meter removal for warranty repair. Housings consisting of all plastic may not hold up long term in our low-lying salt and brackish water conditions and plastic threads are significantly more susceptible to cracking and cross threading during meter installation and removal.

Positive Displacement meters measure water mechanically by the flow of water through the meter and do not require the use of batteries for an electronic measuring unit to calculate & communicate the measurement of water to the register. Positive displacement meters have a greater life expectancy of 25+ years when paired with a mechanical dial register, which was proven by a study of Jefferson Parish meters completed by Digital Engineering & Imaging, Inc. in October of 2019. For medium flow conditions (2 gpm for 5/8" x3/4" and 4 gpm for 1") which provide the most representative flow for normal residential households, positive displacement meters older than 20 years still provided an accuracy rate of 95.86% as detailed in the October 2019 study.

In the extreme heat conditions experienced in Jefferson Parish, batteries fail significantly sooner than the average life expectancy. Current battery warranties range from 10 to 15 years full replacement. Failure of the battery will require replacement of the register for positive displacement meters with a digital register or at a minimum, replacement of the central measuring unit (CMU) in a solid-state meter; and the meter will no longer record/communicate measurements, which will result in a temporary loss of revenue to Jefferson Parish until the register, CMU, or entire meter is replaced. Mechanical dial registers will continue to provide readings even if there is an issue with the Nicor connector or a failure of the attached transmitter. With over 150,000 meters, the high probability that the majority of the batteries will fail near the same time coupled with the unpredictable timing of battery conditions due to extreme heat conditions, the Parish does not have the capability to promptly handle the removal and replacement of failed registers and CMU's. In addition, unless the Parish decides to replace all these components in a systematic fashion prior to anticipated battery failure, replacement costs and replacement time will significantly increase as replacement will be done on an individual basis in different areas of the Parish. However, as battery powered transmitters fail, the Parish can utilize personnel to replace them without disturbing the meter while continuing to read the meters. Finally, with premature battery failure, even if under warranty, the Parish is liable for the cost of removal of failed parts with associated shipping costs to the vendor and for the cost of installation of replacement parts with associated shipping costs from the vendor.

For the AMI system, the Water Department has selected to install a licensed radio frequency fixed network over an unlicensed fixed network or cellular network. The AMI fixed network requires a licensed frequency from the FCC. The FCC licensed frequency will be specific to the Jefferson Parish AMI system and can only be used by the Parish. If the Parish experiences any interference, they will have the right to remove any other users off this frequency.

With an unlicensed fixed network, the AMI system operates on unlicensed frequencies and the utility has no control over interference and other users. An unlicensed AMI fixed network also requires additional infrastructure including repeaters throughout the system that are undesirable. With this additional infrastructure, the Parish would need to obtain more property to install the infrastructure and experience increased maintenance cost.

With a cellular network, the AMI system would operate through a contract with a cellular provider and utilize existing cell towers to transmit the water meter data.

The Parish would have no control over when cellular towers go down and when they would be brought back online. Also, as cellular technology advances, the Parish's AMI could be compromised as the existing infrastructure may not be compatible with the new cellular network. A cellular AMI network will also require the Parish to replace the existing metal meter box lids with composite meter box lids as the cellular signal from the AMI radio within the meter box cannot transmit through a metal lid or the battery life of the AMI radio may be compromised transmitting through the metal lid. Replacing all existing metal meter box lids in the Parish will considerably increase the cost of the project.

1.2 Purpose

The purpose of this Request for Proposal (RFP) is to obtain competitive proposals as allowed by Jefferson Parish Code of Ordinances Section 2-895 et. seq. from bona fide, qualified proposers who are interested in providing Scope of Work as defined in Part II hereof. By submitting a proposal, proposer agrees to comply with all provisions of Louisiana law as well as compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish (hereinafter sometimes referred to as the "Parish") standard terms and conditions as adopted by Jefferson Parish Council Resolution.

1.3 Goals and Objectives

The goal of this project is to replace the existing water meters in Jefferson Parish that are beyond their useful life and to install an AMI system to increase the accuracy and efficiency of the measurement and collection of water usage of the customers in Jefferson Parish.

The objectives of this project are the following:

1. Replace existing aging residential water meters (5/8" x 3/4" to 2" in diameter) with new positive displacement water meters with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register with a Nicor connector which enables connection to a battery operated AMI radio transmitter.
2. Replace existing aging commercial meters (2" to 12" in diameter) with new turbine and compound water meters with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register with a Nicor connector which enables connection to a battery operated AMI radio transmitter.
3. Replace any non-working curb stop or gate valves on the Parish side of the water meter.
4. Replace broken meter boxes and/or lids as required.
5. Install an Advanced Metering Infrastructure (AMI) licensed radio frequency network system including data collectors, radios, software, etc.
6. Develop meter change out interface to update new meter serial numbers in the Parish's existing inventory and billing system, and any other interfaces needed to integrate the Parish's systems with the AMI software.
7. Conduct LDH lead service line material classification survey in accordance with the EPA.

1.4 Proposer Minimum Requirements

The Jefferson Parish Water Department desires to establish/obtain/receive/etc. the following:

Warranties:
The proposer shall provide a complete inventory of equipment installed, including description, manufacturer, model, and serial number, and submit any manufacturer's warranty or registration forms. If the manufacturer's warranty is longer than one year; such warranty shall be provided to the Parish. All proposers shall submit warranty documentation for all meter and AMI equipment proposed. For any failures within the warranty period, provide answers to service calls and requests for information within a 24-hour period. Please refer to Attachment "E" Technical Specification Section 11910 and Specification Section 11950 for more information on warranty requirements.

Proposer Requirements: Proposer must be experienced at providing systems similar in nature and complexity to the project outlined in this Request For Proposal; and meet the following criteria:

A. Proposer must be a licensed contractor per LSA-R.S. 37:2150-2163 and furnish current license number with proposal. Classification shall be Telecommunications, Low Voltage.

B. The AMI System shall run on a FCC licensed radio frequency (RF) fixed network. FCC licensed frequencies between 900-950 MHz will be allowed for the system. The FCC licensed frequency must be in place in Jefferson Parish geographic area prior to submitting proposals. Proof of the license for a fixed network will be required to be submitted by the proposer. The proposer shall be responsible for all frequency coordination. Licenses registered with the FCC shall reference Jefferson Parish Government.

C. Qualifications:

	Required Qualifications	Required Documentation
Proposer	10 years water meter experience	Complete list of water meter projects from last 10 years with verifiable project references
Key Staff	5 years water meter/AMI experience with at least 1 project of 75,000 meters and radios	Key staff resumes with water meter experience
Meter Manufacturer	10 years of water meter experience with at least 3 projects of 75,000 meters or more with the proposed meters	Complete list of water meter projects from last 10 years with verifiable project references
AMI Manufacturer	10 years of AMI experience with at least 3 projects of 75,000 radios or more with the proposed system	Complete list of AMI projects from last 10 years with verifiable project references

Installation Company	10 years of water meter installation experience with at least 3 projects of 75,000 meters or more	Complete list of water meter projects from last 10 years with verifiable project references

D. Proposer shall submit propagation study that includes number of data collectors required to cover the Parish as a part of the proposal.

E. Failure to provide the proof of contractor's license (prime) and/or failure to provide the required documentation shall result in your proposal being deemed non-responsive under Code of Ordinances, Parish of Jefferson, State of Louisiana §2-895.

1.5 Schedule of Events

Note: Purchasing Department will complete actual dates and times for items A-D. Evaluation Committee Meeting Date will be scheduled according to committee members' availability and therefore, Items E-G will be determined at later dates.

	Date	Time (CST)
A. RFP posted online @ www.jeffparishbids.net	3/13/2024	At least 30 days prior to the last day that proposals will be accepted
B. Mandatory Pre-Proposal Conference	4/3/2024	10:00 A.M.
C. Deadline to receive written inquiries	4/9/2024	4:30 P.M.
D. Proposal Receipt Date and Time	4/18/2024	3:30 P.M.
E. RFP Evaluation Committee Meeting		TBD

Proposers are encouraged to check the general information board in the General Government Building located at 200 Derbigny St., Gretna and the Joseph S. Yenni Building located at 1221 Elmwood Park Blvd., Jefferson. Additionally, proposers may check for meeting information posted on the Jefferson Parish website.

F. Council Selection via resolution	To be scheduled
G. Contract Ratification via resolution	To be scheduled

NOTE: The Parish of Jefferson reserves the right to deviate from these dates.

1.6 Proposal Submittal

All proposals in accordance with Section 2-895 of the Jefferson Parish Code of Ordinances shall be received by the Jefferson Parish Purchasing Department ***no later than date and time shown in the Schedule of Events in order to be considered responsive.***

Important – Clearly mark outside of electronic envelope, with the following information and format:

- Proposal Name: **Provide and Install New Water Meters and Advanced Metering Infrastructure (AMI) in Jefferson Parish**
- Proposal No. **0481**
- Proposal Receipt Date and Time: **April 18, 2024 3:30 PM**

Proposals will only be received online through the Jefferson Parish e-Procurement site, Central Bidding. Central Bidding can be accessed by visiting either www.jeffparishbids.net or www.centralbidding.com. Registration is required and free for Jefferson Parish Proposers by accessing the following link: www.centralauctionhouse.com/registration.php.

Proposer is solely responsible for the **timely submission** of its proposal. Late proposals will not be accepted.

Price proposals and/or price schedules shall be submitted in a separate electronic sealed envelope as notated on the Central Bidding page as **"Pricing Attachments".** Price Proposals will remain sealed and shall not be read until the completion of the scoring of the Technical Evaluation during the RFP Evaluation Committee Meeting. Once read, the Price Proposals will be evaluated and scored in accordance with Section 1.31. Price proposals shall be worth twenty-five percent (25%) of the total price points assigned.

Proposals shall not be opened publicly. RFP Evaluation Committee Meetings are opened to the public for the evaluation of submitted proposals.

1.7 Proposal Response Format

Proposals submitted for consideration should follow the format and order of presentation described below:

Technical Proposal:

A. Cover Letter: Containing summary of proposer's ability to perform the services described in the RFP and confirms that proposer is willing to perform those services and negotiate a contract with the Parish. The letter shall be signed by a person having authority to negotiate and to commit the proposer to a contract.

If proposer is a sole-proprietorship, proposer must include a statement that the company is a sole-proprietorship signed by the owner. If proposer is an agency, corporation, partnership or other legal entity, the president, vice-president, secretary or treasurer, or an authorized agent shall sign the proposal, **and** satisfactory evidence of the authority of the person signing for the agency, corporation, partnership or other legal entity shall be attached to the proposal. A sample corporate resolution may be downloaded from the Purchasing Department webpage of the Jefferson Parish website.

Proposers should exhibit their understanding and approach to the project and address how each element will be accomplished. Proposers are advised that except as otherwise provided by law, all documents submitted to the Parish under this RFP are subject to the Louisiana Public Records Act, LSA-R.S. 44:1 et seq., and may be released when a public records request is made in accordance with the law.

B. Table of Contents: Organized in the order cited in the format contained herein.

C. Technical Proposal: Illustrating and describing compliance with the RFP requirements defined in the Scope of Work/Services (Part II) and Proposer Qualifications.

D. Proposer Qualifications and Experience: History and background of Proposer, including but not limited to status with related services to government entities existing customer satisfaction, demonstrated volume of merchants, etc.

E. Project Schedule: Detailed schedule of implementation plan for full implementation. This schedule is to include implementation actions, timelines, responsible parties, etc.

F. Financial Profile: Proposers are requested to submit documentation from the past three (3) years demonstrating proposer's financial stability. Documentation may include audited financial statements including balance sheets, income statements, documentation regarding retained earnings, assets, liabilities, etc. Such information should be included in the technical portion of the proposal submission and MUST NOT be included with the cost proposals and/or price schedules.

Price Proposal:

A. Price Proposal: Proposer's fees and other costs shall be submitted **in a separate electronic envelope (named "Pricing Attachments")** with proposal submission. This price proposal shall include any and all costs the proposer wishes to have considered in the proposed contractual arrangement with the Parish of Jefferson.

The price proposal shall be worth twenty-five percent (25%) of the total price points assigned. The maximum cost points shall be calculated by multiplying the number of cost points assigned to price in the evaluation criterion multiplied by the number of evaluators scoring the proposal. Evaluation of price proposal shall take place after technical evaluation has been completed.

1.8 Number of Response Copies

Each proposer shall submit one (1) original **electronic** signed proposal. PDF files are preferred. Price proposals ***shall not*** be included in the Technical portion of your submission.

1.9 Legibility/Clarity

Proposals submitted in response to the requirements of this RFP in the formats requested are desirable with all questions answered in as much detail as practicable. The proposal shall demonstrate an understanding of the requirements. Proposals shall be prepared simply and economically, providing straightforward, concise descriptions of the proposer's ability to meet the requirements of the RFP. Each proposer is solely responsible for the accuracy and completeness of its proposal.

1.10 Pre-proposal Conference

A mandatory pre-proposal conference will be held at ***10:00 a.m., April 3, 2024 at the General Government Bldg., 200 Derbigny Street, Suite 4400, Purchasing, Gretna, 70053).*** Prospective proposers shall participate in the conference to obtain clarification of the requirements of the RFP and to receive answers to relevant questions thereto. Any proposer intending to submit a proposal is required to attend and should have at least one authorized representative attend the Pre-proposal Conference.

Although impromptu questions will be permitted and spontaneous answers will be provided during the conference, the only official answer or position of the Parish of Jefferson will be stated in writing in response to written questions in the form of addenda provided to all prospective proposers.

1.11 Written Inquiries

The Parish shall only consider written and timely communications from proposers. No negotiations, decisions, or actions shall be binding as a result of any oral discussions with any Parish employee or Parish consultant. Answers to questions that materially change or substantially clarify the RFP shall be addressed by addendum and provided to all prospective proposers.

1.12 Inquiry Periods

An initial inquiry period is hereby firmly set for all interested proposers to perform a detailed review of the RFP documents and to submit any written questions relative thereto. **Without exception, all questions MUST be in** writing (even if an answer has already been given to an oral question during the Pre-proposal conference) and received by the close of business on the Inquiry Deadline date set forth in the Schedule of Events. Initial inquiries shall not be entertained thereafter. All official responses to inquiries will be communicated in the form of an addendum.

The Parish of Jefferson shall not and cannot permit an open-ended inquiry period, as this creates an unwarranted delay in the procurement cycle and operations of our agency and departments. The Parish of Jefferson reasonably expects and requires responsible and interested proposers to conduct their in-depth proposal review and submit initial inquiries in a timely manner.

A final 3-day inquiry period may be granted, if additional questions or requests for clarification are received as a result of an addendum. Questions relative to the addendum shall be submitted no later than 3:30 p.m., three (3) full business days from the date the addendum is posted. If necessary, another addendum will be issued to address any final questions received. Thereafter, all proposal documents, including but not limited to the specifications, terms, conditions, plans, etc., will stand as written and/or amended clarified by any addendum issued as a result of the final inquiry period.

Said written inquiries submitted by the proposer shall clearly cross-reference the relevant RFP section. The Parish shall only respond to those inquiries received by the established deadline. Answers to questions that change or substantially clarify the solicitation shall be issued by addendum and provided to all prospective proposers.

Inquiries in accordance with this section may be delivered by e-mail or **posted on the Central Bidding site**:

Phone: **504-364-2680**
Purchasing Specialist II Email: **sfolse@jeffparish.net**
Purchasing Specialist II Name: **Shanna Folse**

1.13 Required Signed and Notarized Affidavits

Affidavits must be completed, signed, properly notarized and submitted in its original format prior to contract signing in accordance with Section 2-895 et. seq. of the Jefferson Parish Code of Ordinances. For the convenience of proposers, these affidavits have been combined into one form entitled, *Request for Proposal Affidavit.*

All proposers who submit a proposal with Jefferson Parish or with any of its agencies, divisions or special districts must identify all subcontractors and persons, excluding full time employees of the proposer, who would assist in providing services or materials under the proposal or who would share in any fees, commissions or other remuneration under the proposal. Substitutions or subsequent addition of subcontractor(s) or other persons to this RFP and any ensuing contract must be requested in writing and approved by Council Resolution. Said written request shall provide to the detailed justification of the compelling need for such addition substitution.

1.14 Proposal Guarantee (NOT APPLICABLE)

1.15 Performance Bond

The successful proposer shall be required to provide a performance (surety) bond in the amount of 50% of the contract price to insure the successful performance of the agreement in accordance with the negotiated terms and conditions of the parties. The proposer acknowledges and agrees that the performance bond may be forfeited for successful proposer's failure to fully and faithfully perform its obligations in accordance with the negotiated and executed agreement.

1.16 Fidelity Bond Requirements (NOT APPLICABLE)

1.17 Proposal Validity

All proposals shall be irrevocable and considered valid from the receipt date for acceptance until such time a contract is executed.

1.18 Revisions, Withdrawals, Protest Procedures

Changes or revisions may be made to submitted proposals, prior to the Proposal Receipt Date and Time, through the Jefferson Parish e-Procurement System. All addenda and changes must cross-reference the relevant RFP section.

Proposer(s) request(s) for withdrawal of proposal(s) to this RFP must be submitted in writing and received prior to the Proposal Receipt Date and Time as set forth in Section 1.5, Schedule of Events.

Any proposer that submitted a proposal in response to this Requests for Proposals may protest in writing to the Director of Purchasing within 48 hours of the evaluation committee meeting. The Purchasing Director will review the complaint in conjunction with the Parish Attorney's Office who will then respond as soon as possible in writing to the proposer.

1.19 Cost of Offer Preparation

All proposals submitted in response to this RFP shall be at the sole cost and expense of the proposer and shall not be subject to reimbursement by the Parish of Jefferson.

1.20 Acceptance of Proposal Content

Proposer's submission to this RFP shall be construed as an acceptance to be bound by the terms and conditions stated herein. Any action in contradiction of this acceptance may result in rejection by the Council.

1.21 Written or Oral Discussions/Presentations

The Parish may conduct written or oral discussions with proposer(s) to clarify and/or enhance the Parish's understanding of submitted material. Any commitments or representations made during these discussions, if conducted, may become formally recorded in the final contract. Conversely, the Parish may make awards based on initial offers. Neither negotiations nor changes to proposals will be allowed during these discussions. Proposers will be allowed forty-five (45) minutes to deliver a presentation during the Evaluation Committee Meeting. Presentations are voluntary and not required. Technical scoring will take place immediately following presentations.

1.22 Standard Terms and Conditions and Non-negotiable Contract Terms

A. The standard general terms and conditions used by the Parish of Jefferson may be found in Resolution No. 136353. A copy may be obtained from the Parish Clerk's Office, 6th Floor, General Government Building, 200 Derbigny Street, Gretna, LA 70053, (504) 364-2626. A copy of the resolution may also be downloaded by viewing the Purchasing Department webpage of Jefferson Parish's website, www.jeffparish.net.

B. Non-negotiable contract terms include but are not limited to taxes, assignment of contract, audit of records, EEOC and ADA compliance, record retention, content of contract/order of precedence, contract changes, force majeure, governing law, including ethics statements, claims or controversies, and termination based on contingency of appropriation of funds.

C. It shall be the duty of every Parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the Parish and the duty of every applicant for certification of eligibility for a Parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10 (19). By submitting a proposal, proposer acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

D. **Inspector General:** It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the inspector general in any investigation, audit, inspection, performance review, or hearing pursuant to JPCO 2-155.10(19).

By signing this document, every corporation, partnership, or person contracting with PARISH, whether by cooperative endeavor, intergovernmental agreement, bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program, attests that it understands and will abide by all provisions of JPCO 2-155.10.

1.23 Taxes

Jefferson Parish is exempt from paying sales taxes under Louisiana State Revised Statute 47:301(8)(c). All prices for purchases of supplies and materials by Jefferson Parish shall be quoted exclusive of State and Parish taxes.

1.24 Selected Proposer's Responsibilities

The selected proposer shall be required to provide all items and services offered in his proposal. The proposer shall be the sole point of contact for all contractual matters, including payment of any and all charges resulting under the contract.

1.25 Sub-Contractor Requirements

If the proposer intends to satisfy any of the Proposer Requirements and/or Scope of Work through the use of a subcontractor, the proposer shall include the name of the subcontractor and specific designations of the tasks to be performed or Vendor Requirements to be met by respective subcontractor(s). Upon request of Parish, the information requested of the proposer under the terms of this RFP shall also be supplied for each subcontractor used to satisfy any of the Proposer Requirements and/or Scope of Work included in the proposal. Please note that Subcontractors cannot be used to satisfy the license requirements of this RFP. Unless specifically permitted in the contract with the Parish of Jefferson, the successful proposer(s) shall not contract with any other party for furnishing any of the work herein requested in the Scope of Work without the ratification by Jefferson Parish Council Resolution.

1.26 Insurance Requirements

Proposer shall furnish the Parish with certificates of insurance evidencing mandated coverage(s) pursuant to Resolution No. 136353, as amended, and Attachment "A". A copy of Resolution No. 136353 may be downloaded from the Purchasing Department webpage on the Jefferson Parish website, www.jeffparish.net.

1.27 Subcontractor Insurance

The proposer shall include all subcontractors as named insured under its policies or shall furnish separate certificates for each subcontractor. All coverages for subcontractors shall be in conformity with Resolution No. 136353, as amended. A copy of Resolution No. 136353 may be downloaded from the Purchasing Department webpage on the Jefferson Parish website, www.jeffparish.net.

1.28 No Guarantee of Quantities

The Parish of Jefferson does not guaranty quantity or services required in the Scope of Work defined in Part II. The proposer shall provide all materials, labor, and equipment, whether specified or not, to provide a complete working system.

The quantities of items or extent of Scope of Work are estimated values. In the event a greater or lesser quantity is required, the Parish reserves the right to increase or decrease said values in accordance with the price proposal.

1.29 Contract Negotiations

The Parish administration shall negotiate the details of service delivery, the terms of the contract, and the contract price most advantageous to the Parish with the proposer(s) selected by the Jefferson Parish Council (sometimes referred to throughout this document as the “Council”) and submit the contract, in final form, to the Council for award. Contract negotiations are limited by Section 1.22(B) Non-negotiable Contract Terms in this RFP. In the event a contract cannot be successfully negotiated, the RFP Evaluation Committee shall seek authorization from the Council to negotiate a contract with another proposer under this RFP.

1.30 Cancellation of RFP or Rejection of Proposals

In accordance with Section 2-895 of the Parish of Jefferson Code of Ordinances, the Parish through its Council may reject any or all proposals received in response to this RFP, or cancel this RFP prior to proposal Receipt Date and Time if in the best interest of the Parish.

1.31 Evaluation and Selection

In conformity with Section 2-895 of the Jefferson Parish Code of Ordinances, all proposals will be evaluated by the RFP Evaluation Committee. Before beginning the evaluation process, the Evaluation Committee must review the RFP concerning not only the task of description, but also the qualifications and the evaluation criteria. The Evaluation Committee shall be comprised of members from requesting department (Water Department), Research and Budget, Purchasing, Public Works, Information Technology, Finance and Legal Department (Parish Attorney’s Office). The representative of the Legal Department shall act as secretary of the Evaluation Committee, and is solely responsible for disseminating all information received during the review process. Also, if deemed necessary and duly authorized by Council Resolution, additional employees of Jefferson Parish may be appointed as members of the RFP Evaluation Committee. The maximum technical points shall be calculated by multiplying the number of technical points assigned to the technical criterion multiplied by the number of evaluators scoring the proposal. After completion and tallying of the Technical Evaluation scores, each RFP Evaluation Committee member shall sign and date his/her individual score sheet. After the secretary of the Evaluation Committee collects all individual technical score sheets, the Purchasing Department representative and the requesting department representative shall tally the individual scores to obtain a total technical evaluation score for each proposer.

Following the tabulation of technical scores, the Purchasing Department representative shall open the sealed price proposals, and shall read the pertinent portions of those price proposals aloud. To the extent necessary, the Evaluation Committee may further review and analyze the price proposals and/or request and receive clarification of the pricing information provided by the proposers for submission to the Council. After discussion of all price proposals, the Finance Department representative shall calculate the cost evaluation portion of the scoring sheet, using the price proposals submitted by proposers and the formula below. The cost evaluation shall constitute twenty-five percent (25%) of the total price points assigned. The maximum cost points shall be calculated by multiplying the number of cost points assigned to price in the evaluation criterion multiplied by the number of evaluators scoring the proposal. The proposer with the lowest price shall receive the highest cost evaluation score.

Other proposers will receive a cost evaluation score computed as follows:

CS = (LPC/PC*X)
Where:
CS = Computed cost score for Proposer
LPC = Lowest proposed cost submitted by Proposers
PC = Proposer's cost
X = Maximum combined cost points available.

After the Finance Department representative completes the cost evaluation scores, the Purchasing Department representative and the requesting department representative shall each add the cost evaluation scores for each proposer to the tabulated technical scores of each proposer, totaling the final number of points assigned to each proposer. The tabulated score sheet shall be signed and dated by the Purchasing Department representative, the Finance Department representative and the requesting department representative. The secretary of the Evaluation Committee shall collect all individual and tabulated score sheets and deliver them to the Council Clerk. The Evaluation Committee shall prepare and forward to the Council a memorandum identifying the qualified proposers and explaining their rationale. Attached to the memorandum shall be copies of the cost proposals received in accordance with the RFP, along with any analysis or clarification completed regarding those cost proposals. A list of names of the responsive and responsible proposers shall be submitted to the Council along with a list of the non-responsive and non-responsible proposers. Responsibility of a proposer shall be determined in accordance with competitive sealed bids in the Revised Statutes of the State of Louisiana. Responsiveness shall be determined considering the materials that the proposer has submitted and the core requirements of the RFP. Proposers are invited to attend the evaluation meeting(s) and are encouraged to check the Jefferson Parish website, www.jeffparish.net, for meeting details.

Upon completion of its analysis, the Council may either (i) adopt the resolution selecting the proposer(s) to supply the non-standard item(s) or perform the statement of work or scope of services; or (ii) reject all proposals. The Council shall select the proposal which received the highest cumulative score from the Evaluation Committee; except that the Council may select a proposer or multiple proposers other than the highest-ranked proposer provided that proposer selected has been given a cumulative score by the

committee that received a total maximum score of at least eighty percent (80%). There are times when selection of multiple vendors to provide the same services is in the best interest of the Parish. If multiple vendors are selected, the Parish administration is to negotiate favorable contract terms which are to include identical pricing for all selected vendors.

Award of the contract may be made without discussions after proposals are received and evaluated. Proposals should, therefore, be submitted on the most favorable terms which the proposer can submit, from a technical standpoint; and from a price standpoint. If the Evaluation Committee determines that discussions are necessary, written submissions or oral discussions/presentations may be required from all proposers. A 45-minute presentation to the RFP evaluation committee will be allowed at the Evaluation Committee Meeting.

1.32 Indemnification

Proposer shall agree to indemnify and hold harmless the Parish of Jefferson, its departments, agencies, boards and commissions, officers, agents, servants and employees, including volunteers, against any and all claims, demands, suits, costs, liabilities or judgments for sums of money, and fines or penalties asserted by any party, firm or organization for loss of life or injury or damages to person or property, growing out of, resulting from, or by reason of any negligent acts, errors, and/or omissions by proposer, its agents, servants or employees, while engaged upon or in connection with the services required to be performed by proposer under this RFP.

Further, proposer shall agree to indemnify the Parish of Jefferson, its departments, agencies, boards and commissions, officers, agents, servants and employees, including volunteers for all reasonable expenses and attorney's fees incurred by or imposed in connection therewith for any loss, damage, injury or other casualty pursuant to this RFP. Proposer additionally shall agree to pay all reasonable expenses and attorney's fees incurred by the Parish of Jefferson, its departments, agencies, boards and commissions, officers, agents, servants and employees, including volunteers in establishing the right to indemnity pursuant to the provisions stated herein.

1.33 Payment for Services

The proposer shall address the invoice to the Jefferson Parish Water Department pursuant to the payment terms negotiated in the contract. The invoice shall be submitted to the Engineer for review and agreement on quantities. The Engineer will forward the invoice to the Jefferson Parish Water Department with a recommendation of payment. Payments will be made by the Jefferson Parish Water Department no earlier than thirty (30) days after receipt of a properly executed invoice, and approval by the Engineer and Jefferson Parish Water Department. Invoices shall include the contract and order number, using department and product or service purchased. Invoices submitted without the referenced documentation will not be approved for payment until the required information is provided.

With each invoice submitted, the successful proposer holding said non-bid contract shall acknowledge that no subcontractors or other persons have been added to the contract without prior Council approval by resolution. Failure to comply with this section shall result in penalties imposed upon the successful proposer under contract as set forth in section 2-935.1 for professional service providers.

1.34 Termination

The proposer affirmatively acknowledges and agrees that the terms of any ensuing contract shall be binding upon the parties thereto until the work has been completed and accepted by the Parish; but said contract may be terminated under any or all of the following conditions:

A. By mutual agreement and consent of the parties thereto.

B. By the Parish as a consequence of the failure of successful proposer(s) to comply with the terms or quality of work in a satisfactory manner, proper allowance being made for circumstances beyond the control of successful proposer(s) provided the Parish will give successful proposer(s) written notice of any such failure and ten (10) days (or more if authorized in writing by the manager) to cure any such failure.

C. By either party upon failure of the other party to fulfill its obligation as set forth in the contract.

D. By the Parish for convenience by issuing successful proposer(s) thirty (30) days written notice.

The continuance of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the Council. If the Council fails to appropriate sufficient monies to provide for the continuation of the contract, or if such appropriation is reduced by the veto of the Parish President to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated.

1.35 Assignment

The proposer affirmatively acknowledges and agrees that any ensuing contract shall be binding upon the successors and assigns for the parties thereto. The ensuing contract being for the personal services of the successful proposer(s) shall not be assigned or subcontracted in whole or in part by said successful proposer(s) as to the services to be performed hereunder without the written consent of the Parish, in the Parish's sole discretion.

1.36 EEOC and ADA Compliance

The proposer agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistant Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination in Employment Act of 1972, and the Contracting Party agrees to abide by the requirements of the American with Disabilities Act of 1990.

The proposer shall keep informed of and comply with all federal, state and local laws, ordinances and regulations which affect his employees or prospective employees.

Any act of discrimination committed by the proposer, or failure to comply with these statutory obligations, when applicable, shall be grounds for termination of the contract.

1.37 Audit of Records

A. Proposer(s) affirmatively acknowledges and agrees that pursuant to any ensuring contract, successful proposer shall maintain adequate books of account with respect to its services, in accordance with generally accepted accounting principles (GAAP) in a form and method acceptable to the Parish.

   Successful proposer(s) shall permit Parish and Parish's agents from time-to-time within forty-eight (48) hours written notice, to inspect, copy and audit during successful proposer(s) normal business office hours, the books and records pertaining to the services provided under the contract. Parish's right to audit, inspect, and make copies of proposer's records shall be at the sole expense of Parish.

B. Periodic and/or Annual Reports. At any time, the Parish may request that the successful proposer(s) with the minimum of thirty (30) days written notice, prepare and/or produce a report of the results of operations, as it pertains to any ensuring contract, in the previous fiscal year prepared in accordance with generally accepted accounting principles (GAAP). The report must be prepared and certified by an independent certified public accounting firm. (For purposes of said contract, each "fiscal year" begins on January 1 and ends on December 31 of the same year.)

1.38 Record Retention

The proposer shall maintain all records in relation to the proposed contract at its location for a period of at least five (5) years upon expiration or earlier termination of the contract or for a period stipulated by the governing State and Federal regulations, whichever is longer.

1.39 Record Ownership

The proposer acknowledges and agrees that all records, reports, documents, or other material(s) developed or resulting from this RFP shall be the sole property of the Parish of Jefferson, and shall be returned to the Parish by proposer upon request at expiration or earlier termination of a contract.

1.40 Content of Contract/Order of Precedence

In the event of a conflict among documents, the order of precedence which shall govern is as follows: 1) the final contract; and, 2) the Request for Proposal (RFP) and addenda (if any); and, 3) Resolution No. 136353; and, 4) the Proposer's proposal and any amendments thereto.

1.41 Contract Changes

Upon negotiation of a bona-fide contract between the parties, no additional changes, amendments, or modifications may be completed without the prior ratification of the Council.

1.42 Substitution of Personnel

Substitution of personnel shall be approved by the Council, prior to any replacements. In addition to the foregoing, if during the term of the contract, the successful proposer cannot provide the personnel or subcontractor as stated in its submission, proposer shall submit a written request for substitution supported by resume of qualifications and written certification that said substitution shall meet or exceed the requirements stated herein. Said substitution shall be at the Parish's sole discretion.

1.43 Force Majeure

The proposer or Parish of Jefferson shall be exempted from performance under the terms and conditions of the negotiated contract if the proposer or Parish is prevented from performing any services in whole or in part as a result of any act of God, strike, war, civil disturbance, epidemic, pandemic or court order; provided the proposer or Parish of Jefferson has prudently and promptly acted to undertake any and all corrective steps that the respective parties can perform. Subject to this provision, such nonperformance shall not be construed as considered cause or grounds for early termination of the contract.

1.44 Governing Law

All activities associated with this RFP process shall be interpreted under the laws of the State of Louisiana. All proposal submissions shall be governed in accordance with provisions of Louisiana State laws and Jefferson Parish Code of Ordinances; standard terms and conditions; Resolution No. 136353.

1.45 Claims or Controversies

Proposer, as evidenced by his/her signature, agrees that the ensuing contract shall be made in accordance with the laws of the State of Louisiana. The proposer hereby agrees to the exclusive jurisdiction and venue of the 24th Judicial District Court for the Parish of Jefferson, State of Louisiana.

PART II – SCOPE OF WORK/SERVICES

2.1 Scope of Work/Services

The scope of work for this project is to replace all residential and commercial water meters with sizes ranging from 5/8"x3/4" to 12". 5/8"x3/4" and 1" water meters shall be replaced with a new positive displacement water meter with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register with a Nicor connector which enables connection to a battery operated AMI radio transmitter. 2" water meters shall be replaced with either a new positive displacement, or compound water meter, depending on the existing type of meter, with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register with a Nicor connector which enables connection to a battery operated AMI radio transmitter. 3" to 12" water meters shall be replaced with turbine or compound water meter, depending on the existing type of meter, with a brass, bronze alloy, or epoxy coated ductile iron housing and mechanical dial register with a Nicor connector which enables connection to a battery operated AMI radio transmitter. All new meters shall be Advanced Metering Infrastructure (AMI) radio frequency compatible. The replacement of curb stops, gate valves, meter boxes and/or meter lids may be necessary if broken or not in working condition. Also, the scope of work includes installing a licensed fixed network Advanced Metering Infrastructure (AMI) system which includes data collectors, radios, software, interfaces, etc. It will be a requirement of the proposer to provide a meter change out interface to update the new meter serial number in the Parish's AS400 billing system and any other interfaces required to communicate between the AMI and installation software and Parish's software. Additionally, a lead service line material classification survey for each meter must be conducted in accordance with the guidelines set forth by the EPA. Technical project specifications are attached to this RFP in Attachment E for additional project details. Proposers shall comply with the technical specifications in Attachment "E".

Due to Hurricane Ida, the existing water meters in the areas of Grand Isle and Lafitte were covered with sand or mud. As a part of this project, the Jefferson Parish Water Department would like to Proposer to dig out these water meters for replacement. In Grand Isle, the existing water meters shall be inspected to determine if they are in working condition. If in working condition, the existing meters in Grand Isle do not need to be replaced.

2.2 Period of Agreement

The total preferred term of any resulting contract is four (4) years. The preferred term to install the AMI data collector infrastructure and software integration is six (6) months. The proposer shall include a project schedule in the proposal as discussed in Section 1.7.

2.3 Price Proposal (Price Schedule)

Price proposals and/or price schedules shall be submitted in a separate electronic sealed envelope as notated on the Central Bidding page as **"Pricing Attachments".** Price Proposals will remain sealed and shall not be read until the completion of the scoring of the Technical Evaluation during the RFP Evaluation Committee Meeting. Price Proposals shall not be included in the technical evaluation criteria. Once read, the Price Proposals will be evaluated and scored in accordance with Section 1.31. Price proposals shall be worth twenty-five percent (25%) of the total price points assigned.

Pricing **must** be submitted on the Price Proposal (Price Schedule) furnished in Attachment "F". All proposed pricing shall be inclusive of all additional costs and expenses, including shipment.
Prices submitted shall remain firm for the term of the contract, unless otherwise negotiated. The proposer shall submit pricing for all items included in Attachment "F" Pricing Table including all materials and labor.

2.4 Deliverables

Every proposer must describe what deliverables will be provided per their proposal, and how the proposed deliverables will be provided.

2.5 Location

The location where services are to be performed is Parish Wide, which includes the incorporated cities and towns of Harahan, Kenner, Grand Isle, and Lafitte, as well as the Timberlane Subdivision of the City of Gretna and the unincorporated areas of Avondale, Barataria, Bridge City, Crown Point, Harvey, Marrero, Metairie, Nine Mile Point, River Ridge, Terrytown, Waggaman, and Westwego.

2.6 Financial Profile

Proposers are requested to submit documentation from the past three (3) years demonstrating proposer's financial stability.

Documentation may include audited financial statements including balance sheets, income statements, documentation regarding retained earnings, assets, liabilities, etc.

Proposer must include information demonstrating the proposer's financial stability and ability to obtain and maintain bonding and insurance requirements in order to be eligible to be assigned a higher score. Proposals which lack the description of the proposer's financial status or the required certification of bonding and insurance requirements may be assigned a lower score.

2.7 Proposal Elements

A. Technical

1. Each proposer shall address how the proposer will achieve/meet the scope of work as stated in Section 2.1. Technical approach shall detail the following: Plans and/or schedule of implementation, orientation, and/or installation, etc. (whichever is relevant to the RFP requirements).

2. Plans for necessary training, where applicable. Information demonstrating an affirmative statement shall be required that the proposer has reviewed the scope of work, understands the nature thereof and is willing and capable of providing the services thereof.

3. In addition to the above information required for the technical portion of the proposal, the proposer shall also submit the completed Attachment "G" – Meter and AMI Specification Summary Tables as a part of the technical portion of the proposal. This will allow the Parish to determine if the proposer meets and complies with the Parish's meter requirements as stated in Attachment "E" - Technical Specifications.

B. Qualifications and Experience

1. Proposers shall provide a detailed statement of related services to government entities or private entities which identifies customer satisfaction, demonstrated volume of merchants, etc. Proposer must provide a detailed description of customer service capabilities, including resumes of personnel assigned, total number of personnel and timeline of customer inquiries and complaints, as applicable.

2. Proposer shall provide resumes for account manager(s), designated customer service representative(s) and any and all key personnel anticipated to be assigned to this project, in addition to resumes of any and all subcontractors.

PART III – FEDERAL CONTRACT PROVISIONS

3.1 Federal Contract Provisions (NOT APPLICABLE)

1. Prevailing wages do not apply to this RFP.
2. This RFP does not require unionized meter installation personnel.
3. This RFP does not have any domestic or foreign requirements for materials used.

PART IV – EVALUATION

4.1 Evaluation Criteria

The proposed evaluation criteria shall be looked upon as standards which measure how well a proposer's approach meets desired performance requirements, and which permit an evaluation of the differences between desired performance characteristics and what the proposer proposes to do.

The proposed evaluation criteria shall measure how well a proposer's approach meets desired minimum performance standards defined in the RFP, and shall allow for the quantification of the differences between those stated minimum standards and what the proposer intends to do. In accordance with Section 2-895 of the Code of Ordinances for Jefferson Parish a scoring system must be devised and impartially applied to each proposal to assure objectivity and thoroughness in comparative analysis.

Cost evaluation shall constitute twenty-five percent (25%) of the total price points assigned. Evaluation of cost shall take place after technical evaluation has been completed.

A. TECHNICAL PROPOSAL (Maximum of 75 Points per Evaluator)

The following criteria shall measure the qualifications, technical capabilities and core competency of the proposers and their submissions:

i. Water Meters
   1. Meter Type (i.e. Positive Displacement, Mechanical Dial) & Materials — 15
   2. Meter Flow Range — 5
   3. Pipes, Valves, Fittings, Boxes, Lids, Miscellaneous Installation Materials, and Meter Installation Project Schedule — 5
   4. Meter Warranties — 10

ii. Advanced Metering Infrastructure (AMI) System
   1. AMI Infrastructure — 5

2. Radio License Type & Network Devices (Data Collectors & Handhelds) 10
3. Professional Services and AMI System Installation Project Schedule 5
4. Operation and Maintenance 5

iii. Specific Experience in similar or larger scope of services currently being proposed 5

iv. Personnel Experience of Staff in similar scope of services currently being proposed 5

v. Financial Profile of Company 5

B. COST PROPOSAL

The proposer with the lowest price shall receive the highest cost evaluation score.
Other proposers will receive a cost score computed as follows:

CS = (LPC/PC*X)
Where:
CS = Computed cost score for Proposer
LPC = Lowest proposed cost submitted by Proposers
PC = Proposer's cost
X = Maximum combined cost points available — Maximum # of Points 25 per Evaluator

TOTAL MAXIMUM POINTS FOR THIS RFP 100 PER EVALUATOR.

PART V – PERFORMANCE STANDARDS

5.1 Performance Requirements

- Proposer's timely submission of reports
- Proposer's submission of accurate and itemized invoices
- Proposer's adherence to project schedule/meet completion date
- Proposer's ability to provide key personnel with knowledge and technical expertise

5.2 Performance Measurement/Evaluation

- Did the proposer finish ahead of schedule?
- Did the proposer respond to Parish correspondence in a timely manner?
- Were complaints/problems resolved in a reasonable and cooperative manner?
- Was the proposer reasonable and responsive to Parish needs?
- Was the final product usable for the purpose intended?
- Were changes in key personnel made? How often? With or without notice?

PART VI - APPENDICIES

ATTACHMENT "A"

INSURANCE REQUIREMENTS

All insurance requirements shall conform to Jefferson Parish Resolution No. 136353 (previously 113646).

The proposer shall not commence work under this contract until it has obtained all insurance and complied with the insurance requirements of the specifications and Resolution No. 136353 (amends Resolution No. 113646), as amended.

Proposers must provide with proposal submission a current (valid) insurance certificate evidencing required coverages. The current insurance certificate will be used for proof of insurance at time of evaluation. Thereafter, and prior to contract execution, the selected proposer will be required to provide final insurance certificates to the Parish which shall name **the Jefferson Parish, its Districts Departments and Agencies under the direction of the Parish President and the Parish Council** as additional insureds regarding negligence by the contractor for the Commercial General Liability, Workmen's Compensation Insurance and the Comprehensive Automobile Liability policies. Additionally, said certificates should reflect the name of the Parish Department receiving goods and services and reference the respective Jefferson Parish RFP solicitation number

WORKER'S COMPENSATION INSURANCE

As required by Louisiana State Statute, exception; Employer's Liability, Section B shall be $1,000,000 per occurrence when Work is to be over water and involves maritime exposures to cover all employees not covered under the State Worker's Compensation Act, otherwise this limit shall be no less than $500,000 per occurrence.

COMMERCIAL GENERAL LIABILITY

Shall provide limits not less than the following: $1,000,000.00 Combined Single Limit per Occurrence for bodily injury and property damage.

COMPREHENSIVE AUTOMOBILE LIABILITY

Bodily injury liability $1,000,000.00 each person; $1,000,000.00 each occurrence. Property Damage Liability $1,000,000.00 each occurrence.

DEDUCTIBLES

No insurance required shall include a deductible greater than $10,000.00. The cost of the deductible is borne by the proposer.

UMBRELLA LIABILITY COVERAGE

An umbrella policy or excess may be used to meet minimum requirements.

ATTACHMENT "B"

Request for Proposals #0481

To provide and install new water meters and advanced metering infrastructure (AMI) in Jefferson Parish

SIGNATURE PAGE

The Jefferson Parish Department of Purchasing is soliciting Request for Proposals (RFP'S) from qualified proposers who are interested in providing and installing new water meters and advance metering infrastructure (AMI) for the Jefferson Parish Water Department.

Request for Proposals will be received until 3:30 p.m. Local Time on: April 18, 2024.

Acknowledge Receipt of Addenda: Number: _____
Number: _____
Number: _____
Number: _____
Number: _____
Number: _____

Name of Proposer: _____

Address: _____

_____

Phone Number: _____ Fax Number_____

Type Name of Person Authorized to Sign: _____

Title of Person Authorized to Sign: _____

Signature of Person Authorized to Sign: _____

Email Address of Person Authorized to Sign: _____

Date: _____

This RFP signature page must be signed by an authorized Representative of the Company/Firm for proposal to be valid. Signing indicates you have read and comply with the Instructions and Conditions.

ATTACHMENT "C"

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF

_____

INCORPORATED.

AT THE MEETING OF DIRECTORS OF _____
INCORPORATED, DULY NOTICED AND HELD ON _____,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT WAS:

RESOLVED THAT _____, BE AND IS HEREBY APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES, DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE EXECUTION OF ALL PROPOSALS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES, CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH PROPOSAL OR CONTRACT, THIS CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF AN EXCERPT OF THE MINUTES OF THE ABOVE DATED MEETING OF THE BOARD OF DIRECTORS OF SAID CORPORATION, AND THE SAME HAS NOT BEEN REVOKED OR RESCINDED.

_____

SECRETARY-TREASURER

_____

DATE

ATTACHMENT "D"

Request for Proposal
Affidavit Instructions

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and Parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the Council acts on the matter.**
- **RFP Affidavit must be submitted in its original format prior to approval in accordance with Sec. 2-895(b) of the Jefferson Parish Code of Ordinances.**

Instruction sheet may be omitted when submitting the affidavit.

Request for Proposal

AFFIDAVIT

STATE OF _____

PARISH/COUNTY OF _____

BEFORE ME, the undersigned authority, personally came and appeared: _____ _____, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized _____ of _____ (Entity), the party who submitted a proposal in response to RFP Number _____, to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B _____ there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Affiant further said:

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B _____ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

Solicitation of Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all elected officials of the Parish of Jefferson, whether still holding office at the time of the affidavit or not, where the elected official, individually, either by **telephone or by personal contact,** solicited a campaign contribution or other monetary consideration from the Entity, including the Entity's officers, directors and owners, and employees owning twenty-five percent (25%) or more of the Entity, during the two-year period immediately preceding the date the affidavit is signed. Further, to the extent known to the Affiant, the date of any such solicitation is included on the attached list.

Choice B _____ there are **NO** solicitations for campaign contributions which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Affiant further said:

Subcontractor Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Affiant further said that attached is a listing of all subcontractors, excluding full time employees, who may assist in providing professional services for the aforementioned RFP.

Choice B _____ There are **NO** subcontractors which would require disclosure under Choice A of this section.

_____
Signature of Affiant

_____
Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME
ON THE _____ DAY OF _____, 20___.

_____
Notary Public

_____
Printed Name of Notary

_____
Notary/Bar Roll Number

My commission expires _____.

ATTACHMENT "E" – TECHNICAL SPECIFICATIONS

TABLE OF CONTENTS

END OF SECTION

SECTION 01010

SUMMARY OF WORK

PART 1 – GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

A. The work of this contract includes labor and materials to replace approximately 140,088 existing residential and commercial water meters with new advanced metering infrastructure (AMI) compatible water meters and a licensed radio frequency fixed network AMI system. The AMI system shall include data collectors installed on existing Jefferson Parish designated infrastructure such as water towers and ground storage tanks, and radios with external antennas installed through the meter box lids. Approximately 20,500 existing 2" and smaller Badger (Models 25, 70, and 170) water meters with an existing ERT connector do not need to be replaced with a new water meter if they are in working condition but will need a new radio installed at the meter. Therefore, the new radios at these approximately 20,500 shall be furnished with an ERT connector and not the Nicor connector required at new meters.

B. The Contractor shall furnish all labor, materials, equipment, tools, services, and incidentals to complete all work required by these specifications.

C. The Contractor shall perform the work complete, in place and ready for continuous service, and shall include repairs, replacements, and restoration required as a result of damages caused during this construction.

D. The Contractor shall furnish and install all materials, equipment, and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

1.02 WORK SEQUENCE

A. All work to be done under this contract shall be done with minimum inconvenience to the users of the water system. The Contractor shall coordinate such that water service is maintained to all users to the maximum extent possible.
   a. The Contractor shall place a door hanger or mailer to notify the water customer of the water meter and radio replacement at least one week prior to installation. A proof of the door hanger or mailer shall be submitted to the Engineer and Parish for review and approval. Jefferson Parish will notify the residents of the project on their website and social media pages.
   b. For residential addresses, the contractor shall knock on the customers door prior to the new water meter installation to notify the customer that they will be without water for a short period of time.
   c. For commercial addresses, the contractor shall contact the customer to

schedule the water meter replacement at a convenient time for their business.

d. After every new water meter installation, the contractor shall leave a door hanger notifying the resident that their water meter has been replaced with the date and time of replacement. The door hanger shall include a contact name and number for the contractor Call Center so that the customer can report any problems after installation. The selected contractor will be responsible for the Call Center and Appointment Scheduling.

B. Construct work in stages to accommodate the Owner and Public's use of the premises during the construction period; coordinate the schedule and operations with the Owner's representative.

C. The Parish has twenty-one (21) water cycles. The contractor must complete 90% of the replacement of water meters, radio installations and programming, and site restoration within one cycle prior to moving on to the next cycle.

D. The AMI data collectors that cover the following areas shall be installed first: Grand Isle, Lafitte and Kenner. The preferred term to install all AMI data collector infrastructure and software integration is six (6) months and shall be installed prior to meter installations in the area.

E. The Parish addresses are organized by cycles. The Parish will provide the selected contractor with a meter download file that will be in accordance with their sequential route and billing schedule, but routing will be left up to the contractor. This will include any special notes or instructions that meter readers have noted. The Parish does not have record of an approximate number of hard to access meters or the number of small commercial metering applications. The below tables provide an approximation of meter counts within each cycle. The numbers frequently change due to the daily incoming and outgoing customers.

EASTBANK	
Cycle Number	Number of Meters
10	16,787
20	11,370
30	18,436
40	13,117
50	12,656
60	18,800
70	0
80	0
90	646

WESTBANK	
Cycle Number	Number of Meters
1	6,414

2	9,705
3	7,898
4	9,100
5	13,297
6	8,211
7	135
8 (Lafitte)	1,893
9	366

GRAND ISLE	
Cycle Number	Number of Meters
95	618
96	538
97	601
98	498

F. The replacement of water meters, radios, and site restoration must be completed in the following order:

1) West Bank: Grand Isle (Cycles 95, 96, 97, and 98) and Lafitte (Cycles 8)

Meter Sizes by Cycle as of 11/15/2023 (Removed Meters Included)							
	¾"	1"	2"	3"	4"	6"	Total
8 (Lafitte)	1935	509	98		2	1	2545
95 (GI)	608	33	13	3	1		658
96 (GI)	545	35	15				595
97 (GI)	652	15					667
98 (GI)	594	18	8		2		622
						Total	5087

2) East Bank: Kenner (Cycle 60)
3) The priority of the next cycle on each bank shall be coordinated with the Water Department as the next cycle installation priority will be the current billing cycle at that time.

All meters in Grand Isle and Lafitte are currently being estimated. Therefore, it is the intent of the project to have the water meters and radios in Grand Isle and Lafitte replaced first due to the effects of Hurricane Ida in these areas. Once these cycles are completed, two residential crews on the East Bank and West Bank shall be working simultaneously. Additionally, a separate commercial crew shall be working simultaneously throughout the Parish. A minimum of three total crews shall be deployed at all times.

G. The existing water meters that will be removed during replacement shall remain the

property of the Parish. The Contractor will be required to remove the meters and dispose of them in the Parish designated areas below:

East Bank:
Public Works Central Warehouse
4901 Jefferson Highway Suite C
Jefferson, LA 70121

OR

3600 Jefferson Highway
Jefferson, LA 70121

West Bank:
Public Works West Bank Warehouse
1500 River Park Blvd.
Bridge City, LA 70094

1.03 STORAGE AREAS/WAREHOUSE

A. Contractor shall limit his use of the construction areas for work and storage to allow for:

1) Work by other contractors.
2) Owner use.
3) Public use.

B. Coordinate use of work site under direction of Engineer.

C. Contractor will be responsible for obtaining and paying for the use of storage, areas, or warehouses needed for secure storage of material and equipment through the entire duration of the project.

D. All materials and equipment shall be stored per the manufacturer's recommendations until installation. Contractor shall assume full responsibility for the protection and safekeeping of products under this contract.

E. Arrange storage in a manner to provide easy access for inspection.

1.04 OWNER OCCUPANCY

A. Cooperate with Owner's representative in all construction operations to minimize conflict, and to facilitate Owner usage.

B. Contractor shall at all times conduct his operations as to insure the least inconvenience to the general public.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

A. Refer to Pricing Table.

B. Payment shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labors, operations, and incidentals appurtenant to complete the work being described, as necessary to complete the various items of the work all in accordance with the requirement of the Contract Documents, including all costs of compliance with the regulations of public agencies having jurisdiction. The Contractor is hereby on notice that no separate payment will be made for any item not specifically called out, but that is required to properly complete the project.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

PART 4 – MEASUREMENT AND PAYMENT

The total proposed price shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work, including furnishing all materials, supplies, and appurtenances; providing all construction equipment, and tools; performing all necessary labor and supervision to fully complete the work, shall be included in the proposed price. All work not specifically set forth as a pay item in the pricing table shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be incidental to the pay items.

4.01 MEASUREMENT AND PAYMENT (LUMP SUM ITEMS)

The lump sum items shall include all tools, equipment, supplies, and manufactured articles, and for all labors, operations, and incidentals appurtenant to complete the work as shown and detailed in the contract documents. Prior to beginning construction, the Contractor shall provide a detailed itemized cost breakdown of the lump sum items to be used for processing monthly payment applications.

A. Project Management

Measurement for payment for project management will be on a lump-sum basis as specified herein. Payment for project management shall be made in equal monthly percentage of this item beginning on the notice to proceed date and ending at project completion. Project management shall include reports pertaining to schedule, budgets, and performance requirements, required project goals and milestone deliverables, project management meetings, installation meetings, all preparatory work, necessary permit acquisition, insurance and bonds, movement of personnel, equipment, supplies and incidentals to the project site and other construction facilities necessary for work on this project.

B. Installation Software and AS400 Meter Replacement Interface

Measurement for installation software and AS400 meter replacement interface will be made on a lump sum basis as specified herein. Payment for installation software and AS400 meter replacement interface shall be made in equal monthly percentage of this item once the interface process begins and ending once the interfaces have been completed and tested, and shall include all installation software, database maintenance, and AS400 meter replacement interfacing. This shall include routine diagnostics for data corruption and abnormalities, rebuilding of indexes, and removal of duplicate records. The AS400 meter replacement interface shall provide the Parish with the ability to update the old meter serial numbers in their existing AS400 system with the new installed meter serial numbers.

C. Training

Measurement for payment for training will be on a lump-sum basis once training has been completed. Payment for training shall include all preparatory work, training location and equipment, training curriculum, instructors, training objectives and outlines, training aids, and testing. Training shall be for both installers and owner employees.

D. Printing and Postage

Measurement for payment for printing and postage will be on a lump-sum basis as specified herein. Payment for printing and postage shall be made based on the percentage of meters installed and shall include all necessary customer notification documentation such as door-hangers and mailers required to notify customers of upcoming work and door-hangers notifying customers of the completed work with contact information.

E. Warehousing

Measurement for payment for warehousing will be on a lump sum equal percentage basis through the duration of the project. Payment for warehousing

shall include all work to obtain a warehouse to securely store all material and equipment for the duration of the project.

F. Meter Data Management Software as a Service (SaaS) Configuration

Measurement for configuration of meter data management software (SaaS) will be made on a lump sum basis as specified herein. Payment for meter data management software configuration shall be made in equal monthly percentage of this item beginning on the notice to proceed date and ending once the configuration has been complete and tested and shall include all software, testing and configuration. This shall include routine diagnostics for data corruption and abnormalities.

G. IT System Interface(s)

Measurement for IT System Interface(s) will be made on a lump sum basis as specified herein. Payment for IT System interface shall be made in equal monthly percentage of this item once the interface process begins and ending once the interfaces have been completed and tested and shall include all interfaces needed to successfully integrate the owner's billing (AS400 and PAYSTAR) and work order systems with the meter data management system software, the installation/field programing software and any other software needed for the AMI system.

H. Field Programing Software

Measurement for the field programing software will be made monthly with the percentage of the lump sum of radios that have been installed each month. Payment for field programing software shall be made on a monthly basis once radio installation and programming begins and shall include all software and hardware for installation field programing, software/database maintenance, configuration, and any licenses required. This shall include routine diagnostics for data corruption and abnormalities.

I. Call Center Services

Measurement for payment for call center services will be on a lump-sum basis as specified herein. Payment for call center services shall be made in equal monthly percentage of this item beginning on the approved date that call center services setup will begin and ending at project completion. Call center services shall be available once meter installations begin on a 24 hours, 7 days a week basis to answer any calls for the duration of the meter installations.

4.02 MEASUREMENT AND PAYMENT (UNIT PRICE ITEMS)

All unit price items include estimated quantities stipulated in the Pricing Table and are to be used only (a) as a basis for estimating the probable cost of the work,

and (b) for the purpose of comparing the proposals submitted for the work. The actual amount of work done, and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. Payment for installation services shall be based on accepted installations. Proposer shall provide documentation to the owner and engineer including the list of individual addresses completed, work completed at each address, a date and other details to be specified. No compensation will be given for any quantities not used.

A. 5/8" x 3/4" Positive Displacement Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all necessary equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

B. 1" Positive Displacement Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

C. 2" Positive Displacement Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

D. 2" Compound Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

E. 3” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

F. 3” Compound Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

G. 4” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

H. 4” Compound Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

I. 6” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

J. 6” Compound Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

K. 8” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

L. 8” Compound Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

M. 10” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

N. 12” Turbine Water Meter with Mechanical Dial Register

Measurement and payment shall be made per each water meter with mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the water meter, including all equipment, tools, Nicor connector, strainers (either internal or external), and incidentals to the water meters in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

O. 3“ Fire Hydrant Meter with 2” Gate Valve, Backflow Preventer and Mechanical Dial Register

Measurement and payment shall be made per each 3” Fire Hydrant Meter with 2” Gate Valve, Backflow Preventer and mechanical dial register procured and delivered. Payment shall constitute full compensation to furnish the fire hydrant meter with mechanical register, gate valve and backflow preventer, including all equipment, tools, Nicor connector, strainers and additional labor, and incidentals to the conversion in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

P. 2“ Turbine to 2” Compound Meter Conversion Additional Materials

Measurement and payment shall be made per each 2” turbine water meter to 2” compound water meter conversion installed. Payment shall constitute full compensation to furnish the additional materials needed for the 2” turbine to 2” compound water meter conversion, including all equipment, tools, additional labor, and incidentals to the conversion in accordance with the specifications.

Q. 5/8” x 3/4” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

R. 1” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

S. 2” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

T. 3” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

U. 4” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

V. 6” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

W. 8” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

X. 10” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

Y. 12” Water Meter Installation

Measurement and payment shall be made per each water meter installed. Payment shall constitute full compensation to install the water meter and conduct a pre-installation survey of the water meter, including all equipment, tools, labor, and incidentals to install the water meters in accordance with the specifications.

Z. ¾” Curb Stop, Copper to Copper

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

AA. 1” Curb Stop, Copper to Copper

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

BB. 2” Curb Stop, Copper to Copper

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

CC. ¾” Curb Stop, Meter Ball Valve

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

DD. 1” Curb Stop, Meter Ball Valve

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

EE. 2” Curb Stop, Meter Ball Valve

Measurement and payment shall be made per each curb stop installed. Payment shall constitute full compensation to furnish and install the curb stop, including all equipment, tools, labor and incidentals to the installation of the curb stop in accordance with the specifications.

FF. 3” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

GG. 4” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

HH. 6” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

II. 8” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

JJ. 10” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

KK. 12” Resilient Seat Gate Valve

Measurement and payment shall be made per each gate valve installed. Payment shall constitute full compensation to furnish and install the gate valve, including all equipment, tools, labor and incidentals to the installation of the gate valve in accordance with the specifications. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

LL. ¾” Meter Coupling

Measurement and payment shall be made per coupling installed. Payment shall constitute full compensation to furnish and install coupling, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

MM. 1” Meter Coupling

Measurement and payment shall be made per coupling installed. Payment shall constitute full compensation to furnish and install coupling, including all

equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

NN. 2” Meter Coupling

Measurement and payment shall be made per coupling installed. Payment shall constitute full compensation to furnish and install coupling, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

OO. 3” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

PP. 4” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

QQ. 6” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

RR. 8” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

SS. 10” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

TT. 12” Mechanical Joint Fitting

Measurement and payment shall be made per pound of fitting installed. Payment shall constitute full compensation to furnish and install fitting, including all equipment, tools, labor and incidentals to the installation of the coupling in accordance with the specifications.

UU. ¾” PE Tubing DR 9

Measurement and payment shall be made per linear foot of tubing installed. Payment shall constitute full compensation to furnish and install PE tubing, including all equipment, tools, labor and incidentals to the installation of the PE tubing in accordance with the specifications.

VV. 1” PE Tubing DR 9

Measurement and payment shall be made per linear foot of tubing installed. Payment shall constitute full compensation to furnish and install PE tubing, including all equipment, tools, labor and incidentals to the installation of the PE tubing in accordance with the specifications.

WW. 2” PE Tubing DR 9

Measurement and payment shall be made per linear foot of tubing installed. Payment shall constitute full compensation to furnish and install PE tubing, including all equipment, tools, labor and incidentals to the installation of the PE tubing in accordance with the specifications.

XX. 3” PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

YY. 3” DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe, including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

ZZ. 4” PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

AAA. 4” DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe, including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

BBB. 6” PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

CCC. 6” DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe, including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

DDD. 8” PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

EEE. 8” DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe, including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

FFF. 10” PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

GGG. 10” DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe,

including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

HHH. 12" PVC Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install PVC pipe, including all equipment, tools, labor and incidentals to the installation of the PVC pipe in accordance with the specifications.

III. 12" DI Pipe

Measurement and payment shall be made per linear foot of pipe installed. Payment shall constitute full compensation to furnish and install DI pipe, including all equipment, tools, labor and incidentals to the installation of the DI pipe in accordance with the specifications.

JJJ. Spinner/Connector (Yoke Box Expansion Connector)

Measurement and payment shall be made per spinner/connector (yoke box expansion connector as shown on Drawing 6 of Spec Section 02085 that is inside of the meter box) replaced. Payment shall constitute full compensation to furnish and install spinners, including all equipment, tools, labor and incidentals to the installation in accordance with the specifications.

KKK. Replace Meter Box Lid – Yoke Box

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

LLL. Replace Meter Box Lid – 5/8" x ¾" and 1" Meters

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

MMM. Replace Meter Box Lid – 2” Meters

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

NNN. Replace Meter Box Lid – Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

OOO. Replace Meter Box Lid – Cast Iron Vulcan Meter Box

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

PPP. Replace Meter Box Lid – Harper Meter Box

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

QQQ. Replace Meter Box Lid – Valve Box

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing

water meter box. Any water meter box replaced prior to approval will not be compensated. (Reference Specification Section 02085 Drawing #3)

RRR. Replace Meter Box Lid – Sigma with 2" hole

Measurement and payment shall be made per each meter lid replaced with a meter lid. Payment shall constitute full compensation to furnish and install meter lid, including all equipment, tools, labor and incidentals to the installation. The replacement of the broken water meter lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter lid. Any water meter box lid replaced prior to approval will not be compensated.

SSS. Replace Meter Box and Lid in Asphalt– 5/8" x ¾" and 1" Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the "asphalt" measurement and payment item. The replacement of the broken water meter box and shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

TTT. Replace Meter Box and Lid in Asphalt– 2" Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the "asphalt" measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

UUU. Replace Meter Box and Lid in Asphalt– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be

paid under the “asphalt” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

VVV. Replace Meter Box and Lid in Concrete– 5/8” x ¾” and 1” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

WWW. Replace Meter Box and Lid in Concrete– 2” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

XXX. Replace Meter Box and Lid in Concrete– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

YYY. Replace Meter Box and Lid in Dirt, Grass– 5/8" x ¾" and 1" Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass beyond the quantity included herein shall be paid under the "sodding" measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

ZZZ. Replace Meter Box and Lid in Dirt, Grass– 2" Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass beyond the quantity included herein shall be paid under the "sodding" measurement and payment item, depending on the existing conditions. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

AAAA. Replace Meter Box and Lid in Dirt, Grass– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass beyond the quantity included herein shall be paid under the "sodding" measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer's representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

BBBB. Meter Box Re-Setting/Leveling – Dirt, Grass

Measurement and payment shall be made per each water meter box that is adjusted to grade in dirt, grass per the direction of the Engineer. Payment shall constitute full compensation to adjust the water meter box to grade including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the adjustment of the boxes in accordance with the

specifications. Necessary dirt or grass beyond the quantity included herein shall be paid under the "sodding" measurement and payment item. Excavation and any materials required for adjustment of the meter boxes shall be considered incidental to the unit price.

CCCC. Meter Box Re-Setting/Leveling – Concrete

Measurement and payment shall be made per each water meter box that is adjusted to grade in concrete per the direction of the Engineer. Payment shall constitute full compensation to adjust the water meter box to grade including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the adjustment of the boxes in accordance with the specifications. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the "concrete" measurement and payment item incidentals to the adjustment of the boxes in accordance with the specifications. Excavation and any materials required for adjustment of the meter boxes shall be considered incidental to the unit price.

DDDD. Meter Box Re-Setting/Leveling – Asphalt

Measurement and payment shall be made per each water meter box that is adjusted to grade in asphalt per the direction of the Engineer. Payment shall constitute full compensation to adjust the water meter box to grade including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the adjustment of the boxes in accordance with the specifications. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the "asphalt" measurement and payment item incidentals to the adjustment of the boxes in accordance with the specifications. Excavation and any materials required for adjustment of the meter boxes shall be considered incidental to the unit price.

EEEE. Concrete

Measurement shall be made per cubic yardage of concrete removed, delivered and replaced, beyond two feet on each side of meter box, or concrete formed and placed for the top slab of a 4" & larger meter vault. Weight tickets must be submitted with monthly invoices. Payment shall constitute full compensation by the actual field measurement of cubic yardage of concrete removed and replaced and will be paid at the unit price. This work will include all labor, equipment, tools, materials and incidentals.

FFFF. Asphalt

Measurement shall be made per cubic yardage of asphalt removed, delivered and replaced, beyond two feet on each side of meter box. Weight tickets must be submitted with monthly invoices. Payment shall constitute full compensation for the actual cubic yard of asphaltic concrete removed and replaced and will be paid

at the unit price. This work will include all labor, equipment, tools and materials and incidentals.

GGGG. Sodding

Measurement shall be made per square yardage of sod installed, beyond two feet on each side of meter box. Payment shall constitute for full compensation for the actual square yardage of area of sod installed as determined by field measurement and will be paid at the unit price. The work will include excavation, backfill, labor, equipment, tools, materials and disposal of debris in accordance with the specifications.

HHHH. Brick and Mortar for 4" & Larger Meter Vault

Measurement shall be made per square footage of brick installed. Payment shall constitute full compensation for the actual field measurement of square footage installed and will be paid at the unit price. This will include excavation, backfill, labor, equipment, tools, materials, disposal of debris, and incidentals in accordance with the specifications. This item requires approval by the engineer before installation and shall be used if a repair is needed on an existing 4" or larger brick meter vault.

IIII. Manhole Frame and Grate for 4" & Larger Meter Vault

Measurement shall be made each manhole frame and grate installed in the top slab of a brick-and-mortar 4" & larger meter vault. Payment shall constitute full compensation for the installation of each manhole frame and grate and will be paid at the unit price. This will include equipment, tools, materials, and incidentals in accordance with the specifications. This item requires approval by the engineer before installation.

JJJJ. Excavate Buried Meters

Measurement shall be made per each meter excavated and resetting to grade. Payment shall constitute for full compensation for the labor to excavate buried meters and resetting to grade that have been covered with mud, dirt, etc. The work will include excavation, backfill, labor, equipment, tools, materials and disposal of debris in accordance with the specifications.

KKKK. Expose Pipe Material Required for LDH Survey

Measurement shall be made per each meter that the pipe material on both sides of the meter needed to be exposed due to the pipe material not being visible within the meter box for purposes of the LDH survey. Payment shall constitute for full compensation for the labor to excavate and expose pipe materials that cannot be determined within the meter box. The work will include excavation, backfill, labor, equipment, tools, materials and disposal of debris in accordance with the specifications. The LDH Survey is required on all meters.

LLLL. Fixed Network Radio with ERT Connector for existing Badger Meters

Measurement and payment shall be made per each radio (including a through the lid antenna) procured and delivered. Payment shall constitute full compensation to furnish the radio and through the lid antenna, including all necessary equipment, tools, ERT connector, and incidentals to the radio in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

MMMM. Fixed Network Radio with Nicor Connector for new Meters

Measurement and payment shall be made per each radio (including a through the lid antenna) procured and delivered. Payment shall constitute full compensation to furnish the radio and through the lid antenna, including all necessary equipment, tools, Nicor connector, and incidentals to the radio in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

NNNN. Radio Mounting Bracket (if applicable)

Measurement and payment shall be made per each radio mounting bracket installed. Payment shall constitute full compensation to furnish the radio mounting bracket, including all necessary equipment, tools, and incidentals to mount the bracket to the water meter lid in accordance with the specifications and manufacturer recommendations.

OOOO. Fire Hydrant Meter Radio Mounting Bracket

Measurement and payment shall be made per each fire hydrant meter radio mounting bracket procured and delivered. Payment shall constitute full compensation to furnish the fire hydrant meter radio mounting bracket, including all necessary equipment, tools, and incidentals to mount the bracket to the fire hydrant water meter assembly in accordance with the specifications and manufacturer recommendations.

PPPP. Radio Installation

Measurement and payment shall be made per each radio (including the through the lid antenna) installed. Payment shall constitute full compensation to install the radio and antenna, including all equipment, tools, labor, and incidentals to install the radio and antenna in accordance with the specifications and manufacturer recommendations.

QQQQ. Drilling of Hole through Meter Lid

Measurement and payment shall be made per hole drilled through the water meter box lid. Payment shall constitute full compensation to drill the hole, including all

equipment, tools, labor, and incidentals to the drilling of the hole through the existing lid in accordance with the specifications.

RRRR. Data Collector (Pricing Table Items 7a through 7k)

Measurement and payment shall be made per each data collector procured and delivered. Payment shall constitute full compensation to furnish the data collector, including all necessary equipment, tools, and incidentals to the data collectors in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

SSSS. Data Collector Installation (Pricing Table Items 7l through 7v)

Measurement and payment shall be made per each data collector installed. Payment shall constitute full compensation to install the data collector, including all equipment, tools, labor, and incidentals to install the data collectors in accordance with the specifications and manufacturer recommendations.

TTTT. Handheld Collector

Measurement and payment shall be made per each handheld collector procured, delivered, and programmed. Payment shall constitute full compensation to furnish, program, and configure the handheld collector, including all necessary equipment, tools, and incidentals to the handheld collector in accordance with the specifications. Copies of all delivery tickets shall be submitted as backup documentation with pay application.

UUUU. Meter Data Management System Software as a Service Operating and Maintenance

Measurement and payment shall be made per yearly operating and maintenance cost Software as a Service. Payment shall constitute full compensation for maintaining the operation of the Software as a Service system including routine diagnostics for data corruption and abnormalities.

VVVV. Customer Portal

Measurement and payment shall be made per yearly for the Customer Portal operating and maintenance cost that shall include initial set up and configuration. Payment shall constitute full compensation for maintaining the operation of the Customer Portal system including routine diagnostics for data corruption and abnormalities.

WWWW. Data Collector Backhaul

Measurement and payment shall be made per yearly operating and maintenance cost for Data Collector Backhaul. Payment shall constitute full compensation for maintaining the operation of the Data Collector Backhaul system.

XXXX. Data Collector Maintenance Plan

Measurement and payment shall be made per yearly operating and maintenance cost for Data Collectors. Payment shall constitute full compensation for maintaining the operation of the Data Collector system including routine diagnostics for data corruption and abnormalities.

YYYY. Handhelds Maintenance Plan

Measurement and payment shall be made per yearly operating and maintenance cost for Handhelds. Payment shall constitute full compensation for maintaining the operation of the handhelds including routine diagnostics for data corruption and abnormalities.

ZZZZ. LDH Pipe Material Survey

Measurement for payment for LDH Pipe Material Survey will be on a per each basis as specified herein and is required for all meters in the Parish. Payment for LDH Pipe Material Survey shall be based on each address visited to collect data, and shall include service line material documentation at each water meter address/location. Pipe material documentation shall be included for each address, including those located within driveways or sidewalks where access to outside of the meter box is not accessible. These addresses shall have a designation within the installation software for pipe type unknown due to inaccessibility. Documentation shall be submitted monthly with pay applications.

4.03 MEASUREMENT AND PAYMENT (ALTERNATE UNIT PRICE ITEMS)

All unit price items include estimated quantities stipulated in the Pricing Table and are to be used only (a) as a basis for estimating the probable cost of the work, and (b) for the purpose of comparing the proposals submitted for the work. The actual amount of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. No compensation will be given for any quantities not used.

Alternate Meter Box and Lid pay items A-I shall be used when a proposed meter cannot fit within the limits of the existing box. Proposer shall provide documentation including dimensions of proposed meters in the proposal to confirm if proposed meters will or will not fit within existing boxes. Quantities shall be provided by the proposer. Pay Items A-I are as follows:

A. Replace Meter Box and Lid in Asphalt– 5/8" x ¾" and 1" Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full

compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the “asphalt” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

B. Replace Meter Box and Lid in Asphalt– 2” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the “asphalt” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

C. Replace Meter Box and Lid in Asphalt– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in asphalt. Payment shall constitute full compensation to furnish and install meter and box lid in asphalt, including all equipment, tools, labor, the removal and replacement of asphalt two feet beyond the box on each side, and incidentals to the installation. Any additional asphalt beyond the quantity included herein shall approved by the engineer and shall be paid under the “asphalt” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

D. Replace Meter Box and Lid in Concrete– 5/8” x ¾” and 1” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

E. Replace Meter Box and Lid in Concrete– 2” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

F. Replace Meter Box and Lid in Concrete– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in concrete. Payment shall constitute full compensation to furnish and install meter and box lid in concrete, including all equipment, tools, labor, the removal and replacement of concrete two feet beyond the box on each side, and incidentals to the installation. Any additional concrete beyond the quantity included herein shall approved by the engineer and shall be paid under the “concrete” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

G. Replace Meter Box and Lid in Dirt, Grass– 5/8” x ¾” and 1” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass beyond the quantity included herein shall be paid under the “sodding” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

H. Replace Meter Box and Lid in Dirt, Grass– 2” Meter

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass

beyond the quantity included herein shall be paid under the “sodding” measurement and payment item, depending on the existing conditions. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

I. Replace Meter Box and Lid in Dirt, Grass– Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential

Measurement and payment shall be made per each meter box and lid replaced with a meter box and lid that is situated in dirt or grass. Payment shall constitute full compensation to furnish and install meter and box lid in dirt or grass, including all equipment, tools, labor, dirt or grass to replace two feet beyond the box on each side, and incidentals to the installation. Necessary dirt or grass beyond the quantity included herein shall be paid under the “sodding” measurement and payment item. The replacement of the broken water meter box and lid shall be documented with photos and approved by the engineer’s representative prior to the removal of the existing water meter box. Any water meter box replaced prior to approval will not be compensated.

END OF SECTION

SECTION 01026

SCHEDULE OF VALUES

PART 1 – GENERAL

1.01 GENERAL

A. This Section defines the process whereby the Schedule of Values (lump sum price breakdown) shall be developed. Monthly progress payment amounts shall be determined from monthly progress updates of the scheduled activities.

1.02 SCHEDULE OF VALUES

A. The Contractor shall submit a Schedule of Values for all lump sum price items within 10 days from the date of Notice to Proceed. The listing shall include a price allocation for the major Work components.

B. The Contractor shall assign the price of work (a sum including allocation for materials, labor, equipment, overhead and profit) to each activity. Price per activity shall not exceed $10,000.00. Activities shall be grouped to identify the major work item to be performed. The sum of values for all activities listed shall equal the total Contract Lump Sum Price. The Contractor shall provide to the Engineer upon request, the Contractor's backup price information, including unit prices for excavation, backfill, concrete etc. Determining the total percentage of each activity installed for the month will develop the monthly progress payment.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01046

MODIFICATIONS TO EXISTING PIPING

PART 1 – GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment, and incidentals required to modify, alter and convert existing structures and piping as shown or specified and as required for the installation of new piping and appurtenances.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 GENERAL

A. Prior to commencement of any work modifying existing water meter box structures, piping and appurtenances, an inspection shall be made by the Contractor and Engineer to determine if any existing piping or valves to be left in place are structurally and mechanically sound and in good working order. If it is determined that replacement is required, the items shall be replaced in accordance with the specifications.

B. If re-piping is required, contractor shall match in-kind piping on the customer side of the meter unless the existing piping is galvanized or copper. If galvanized or copper, utilize PE tubing on the customer side. If re-piping is required, PE tubing is required on the Parish side of the meter regardless of what material type is existing.

C. Where necessary or required for the purpose of making connections, the Contractor shall cut existing pipe lines in a manner to provide an approved joint. Where required, he shall weld bends, install flanges, or provide approved couplings, all as required.

D. The Contractor shall provide flumes, hoses, piping, etc. to divert or provide suitable plugs, bulkheads, or other means to hold back the flow of water, or other liquids, all as required in the performance of the work under this contract.

END OF SECTION

SECTION 01152

REQUESTS FOR PAYMENT

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Submit applications for payment to the Engineer in accordance with the schedule established by Conditions of the Contract.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Agreement between owner and Contractor: Total Proposal Price.

B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.

C. Section 01700: Contract Closeout.

1.03 FORMAT AND DATA REQUIRED

A. Submit payment requests in the form required by Owner with itemized data typed on 8 ½ x 11 white paper continuation sheets.

B. Provide itemized data on continuation sheet: format, schedules, line items and values.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. All payment requests must be accompanied by a short progress narrative describing work performed since previous payment submittal, current project schedule and invoices for any stored materials billed.

B. When the Owner or the Engineer requires additional substantiating data and backup documentation, the Contractor shall submit suitable information, with a cover letter.

C. Submit one copy of all data and backup documentation required with a cover letter for each monthly pay request. Any additional substantiating data requested shall also be submitted as required in Part B above.

D. Quantities of "Stored Materials" must be approved by the Engineer prior to purchase of materials. Contractor shall submit invoices and delivery statements with pay requests.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

A. Fill in application form as specified for progress payments.

B. Use continuation sheet for presenting the final statement of accounting as specified in section 01700 - Contract Closeout.

1.06 SUBMITTAL PROCEDURE

A. Submit applications for payment to the Engineer at the times stipulated in the Agreement.

B. Number: Two copies of each application.

C. When the Engineer finds application properly completed and correct, Engineer will transmit certificate for payment to the Owner.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

A. Engineer shall schedule and administer pre-construction meeting, periodic progress meetings, and specially called meetings throughout progress of the work. At a minimum, Engineer shall perform the following duties:

1) Prepare agenda for meetings.

2) Make physical arrangements for meetings.

3) Preside at meetings.

4) Record the minutes; include significant proceedings and decisions.

5) Reproduce and distribute copies of minutes within three days after each meeting.

(a) To participants in the meeting
(b) To parties affected by decisions made at the meeting

B. Representative of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

C. The Contractor shall attend and identify at the meetings the actual status of the Contract Work. When the Work is not being performed consistently with the Contract Documents and construction schedules, the Contractor shall identify at the meetings the steps being taken to resolve the inconsistency.

1.02 RELATED REQUIREMENTS

A. Section 01340: Shop Drawings, Product Data and Samples.

1.03 PRE-CONSTRUCTION MEETING

A. The Contractor shall participate in a preconstruction meeting to be held after the effective date of the Agreement and prior to the date of Notice to Proceed.

B. Location: A central site, convenient for all parties, designated by the Engineer.

C. Attendance:

1) Owner's Representative and other staff as appropriate.

2) Engineer and his professional consultants as appropriate.

3) Resident Project Representative.

4) Contractor's Representative and Construction Superintendent.

5) Subcontractors as appropriate.

6) Major suppliers as appropriate.

7) Others as appropriate.

D. The following matters are expected to be addressed:

1) Distribution and discussion of:

(a) List of major subcontractors and suppliers.
(b) Projected Construction Schedules.
(c) Values for progress payment purposes.

2) Critical work sequencing.

3) Major equipment deliveries and priorities.

4) Project Coordination:

(a) Designation of responsible personnel.

5) Procedures and processing of:

(a) Field decisions.
(b) Proposal requests.
(c) Submittals.
(d) Change Orders.
(e) Applications for Payment.

6) Adequacy of distribution of Contract Documents.

7) Procedures for maintaining Record Documents.

8) Use of premises:

(a) Work and storage areas.

(b) Owner's requirements.

9) Construction facilities, controls and construction aids.

10) Security procedures.

11) Housekeeping procedures.

12) Insurance certificates.

13) Notice to Proceed and Final Completion Date.

1.04 CONSTRUCTION PROGRESS MEETINGS

A. Construction progress meetings will be held weekly.

B. Special construction progress meetings will be held as required by progress of the Work.

C. Location of the meetings: As designated by the Engineer.

D. Attendance:

1) Owner Representative and other staff as appropriate.
2) Engineer, and his professional consultants, as appropriate.
2) Contractor.
3) Subcontractors, as appropriate.
4) Suppliers, as appropriate.
5) Others.

E. The following matters are expected to be addressed:

1) Review, approval of minutes of previous meeting.

2) Review of work progress.

3) Field observations, problems, conflicts.

4) Problems which impede Construction Schedule.

5) Review of off-site fabrication, delivery schedules.

6) Corrective measures and procedures to regain projected schedule.

7) Revisions to Construction Schedule.

8) Progress, schedule, during succeeding work period.

9) Coordination of schedules.

10) Review submittal schedules; expedite as required.

11) Maintenance of quality standards.

12) Pending changes and substitutions.

13) Review proposed changes for:

(a) Effect on Construction Schedule and on completion date.
(b) Effect on other contracts of the project.

14) Other business.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Submit shop drawings, product data and samples required by Contract Documents.

1.02 RELATED REQUIREMENTS

A. Conditions of the Contract: Definitions and Additional responsibilities of parties.

B. Designate in a separate schedule, the dates for submission and the dates that reviewed shop drawings, product data and samples will be needed.

1.03 SHOP DRAWINGS

A. Drawings shall be presented in a clear and thorough manner.

1) Details shall be identified by reference to sheet and detail as shown on contract drawings.

B. Minimum sheet size: 8 ½ inches by 11 inches.

1.04 PRODUCT DATA

A. Preparation

1) Clearly mark each copy to identify pertinent products or models.

2) Show performance characteristics and capacities.

3) Show dimensions and clearances required.

4) Show piping diagrams and controls.

B. Manufacturer's standard schematic drawings and diagrams.

1) Modify drawings and diagrams to delete information which is not applicable to the work.

2) Supplement standard information to provide information specifically applicable to the work.

1.05 SAMPLES

A. Office samples shall be of sufficient size and quantity to clearly illustrate:

1) Functional characteristics of the product, with integrally related parts and attachment devices.

2) Full range of color, texture and pattern.

1.06 CONTRACTOR RESPONSIBILITIES

A. Review shop drawings, product data and samples prior to submission.

B. Determine and verify:

1) Field measurements
2) Field construction criteria
3) Catalog numbers and similar data
4) Conformance with specifications
5) Confirm compatibility of equipment to be supplied within location to be erected.

C. Coordinate each submittal with requirements of the work and of the contract documents.

D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract documents.

E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other contractor.

B. Number of Submittals required:

1) Shop Drawings and Product Data: Submit one (1) set of pdfs of each shop drawing submittal for review. After final review in which there are no exceptions noted or referenced the contractor shall furnish the Engineer one (1) complete set for use by the Engineer and Owner.

2) Samples: Submit the number stated in each specification section.

C. Submittals shall contain:

1) The date of submission and the dates of any previous submissions.

2) The project title and number.

3) Contract identification.

4) The names of:

(a) Contractor
(b) Supplier
(c) Manufacturer

5) Identification of the product, with the specification section number.

6) Field dimensions, clearly identified as such.

7) Relation to adjacent or critical features of the work or materials.

8) Applicable standards, such as ASTM or Federal specification numbers.

9) Identification of deviations from Contract Documents.

10) Identification of revisions on resubmittals.

11) A blank space for Contractor and Engineer stamps.

12) Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents.

1.08 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Engineer and resubmit until no exceptions are taken by the Engineer.

B. Shop Drawings and Product Data:

1) Revise initial drawings or data, and resubmit as specified for the initial submittal.

2) Indicate any changes which have been made other than those requested by the Engineer.

C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer review stamp to:

1) Job site file
2) Record Documents file
3) Other affected contractors
4) Subcontractors
5) Supplier or Fabricator

B. Distribute samples which carry the Engineer review stamp as directed by the Engineer.

1.10 ENGINEER DUTIES

A. Review submittals within 15 calendar days.

B. Affix review stamp and initials or signature, and indicate requirements, if any, for resubmittal.

C. Return submittals to Contractor.

1.11 ENGINEER'S ACTION

A. Final unrestricted release. Work may proceed, provided it complies with contract documents, when submittal is returned with the following:

1) Marking: No exceptions taken

B. Final-But-Restricted Release. Work may proceed, provided it complies with notations and corrections on submittal and with contract documents, when submittal is returned with the following:

1) Marking: Revised as Noted.

C. Returned for Resubmittal. Do not proceed with work. Revise submittal in accordance with notations thereon, and resubmit without delay to obtain a different action marking. Do not allow submittals with the following marking (or unmarked submittals where a marking is required) to be used in connection with performance of the work:

1) Marking: Amend and Resubmit or
Rejected - See Remarks

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Owner will employ and pay for the services of an independent testing laboratory to perform specified testing upon recommendation of the Engineer.

1) The Contractor shall cooperate with the laboratory to facilitate the execution of its required services.

2) Employment of the laboratory shall in no way relieve the Contractor's obligations to perform the work of the contract.

1.02 LABORATORY DUTIES

A. Cooperate with the Engineer and Contractor to provide certified personnel after due notice.

B. Perform specified inspections, sampling and testing of materials and methods of construction:

1) Comply with specified standards.

2) Ascertain compliance of materials with requirements of Contract Documents.

C. Promptly notify the Engineer and Contractor of observed irregularities or deficiencies of work or products.

D. Promptly submit two (2) copies of written report of each test and inspection to the Engineer and two (2) copies to the Contractor. Each report shall include:

1) Date issued.
2) Project title and number.
3) Testing laboratory name, address and telephone number.
4) Name and signature of laboratory inspector.
5) Date and time of sampling or inspection.
6) Record of temperature and weather conditions.
7) Date of test.
6) Identification of product and specification section.
9) Location of sample or test in the project.
10) Type of inspection or test.

11) Results of test and compliance with Contract Documents.
12) Interpretation of test results, when requested by the Engineer.

E. Perform additional tests as required by the Engineer or Owner.

1.03 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

1) Release, revoke, alter or enlarge on requirements of Contract Documents.

2) Approve or accept any portion of the work.

3) Perform any duties of the Contractor.

1.04 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with laboratory personnel; provide access to work, and to manufacturer's operations.

B. Secure and deliver to the laboratory, when requested by the Engineer, adequate quantities of representational samples of materials proposed to be used and which require testing.

C. Provide to the laboratory the preliminary design mix proposed to be used for concrete and other materials mixes which require control by the testing laboratory.

D. Furnish copies of products test reports as required.

E. Furnish incidental labor and facilities:

1) To provide access to work to be tested.

2) To obtain and handle samples at the project site or at the source of the product to be tested.

3) To facilitate inspections and tests.

4) For storage and curing of test samples.

F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

1) When tests or inspections cannot be performed after such notice, reimburse the Owner for laboratory personnel time and travel expenses incurred due to Contractor's negligence.

G. Make arrangements with the laboratory and pay for additional samples and tests required for Contractors convenience.

H. Contractor to pay for all retesting as a result of test failure.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in specifications for administrative procedures in closing out the work.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01730: Operating and Maintenance Data.

1.03 SUBSTANTIAL COMPLETION

A. When the Contractor considers the work is substantially complete, he shall submit to the Engineer:

1) A written notice that the Work, or designated portion thereof, is substantially complete.

2) A list of items to be completed or corrected.

B. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.

C. Should the Engineer determine that the work is not substantially complete:

1) The Engineer will promptly notify the Contractor, in writing, giving the reasons therefor.

2) The Contractor shall remedy the deficiencies in the work, and send a second written notice of substantial completion to the Engineer.

3) The Engineer will reinspect the work.

D. When the Engineer finds that the work is substantially complete, he will:

1) Prepare and deliver to the Owner a tentative Certificate of Substantial Completion on the appropriate parish form with - a tentative list of items to be completed or corrected before final payment.

2) After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer

considers the work substantially complete, he will execute and deliver to the Owner and the contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.04 FINAL INSPECTION

A. When Contractor considers the work is complete, he shall submit written certification that:

1) Contract Documents have been reviewed.

2) Work has been inspected for compliance with Contract Documents.

3) Work has been completed in accordance with Contract Documents.

4) Equipment and systems have been tested in the presence of the Owner's representative and are operational.

5) Work is completed and ready for final inspection.

B. Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

C. Should Engineer consider that the work is incomplete or defective:

1) Engineer will promptly notify the contractor, in writing, listing the incomplete or defective work.

2) Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Engineer that the work is complete.

3) Engineer will reinspect the work.

D. When the Engineer finds that the work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals.

1.05 REINSPECTION FEES

A. Should the Engineer perform re-inspections due to failure of the work to comply with the claims of status of completion made by the Contractor:

1) Owner will compensate Engineer for such additional services.

2) Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit a final statement of accounting to the Engineer.

B. Statement shall reflect all adjustments to the Contract Sum:

1) The original Contract Sum.

2) Additions and deductions resulting from:

(a) Previous Change Orders
(b) Unit Prices
(c) Penalties and Bonuses
(d) Deductions for liquidated damages
(e) Deductions for reinspection payments
(f) Other adjustments

3) Total Contract Sum, as adjusted.

4) Previous payments.

5) Sum remaining due.

C. Engineer will prepare a final Change order, reflecting approved adjustments to the contract sum which are not previously made by change orders.

1.07 FINAL APPLICATION FOR PAYMENT

Contractor shall submit the final application for payment in accordance with procedures and requirements stated in the Conditions of the Contract.

1.08 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ENGINEER

A. Project Record Documents.

B. Warranties and Bonds.

C. Evidence of Payment and Release of Liens.

D. Certificates of Insurance for Products and Completed operations.

E. Maintenance Manuals.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 01730

OPERATING AND MAINTENANCE DATA

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

A. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under contract. Prepare operating and maintenance data as specified in this section and as referenced in other pertinent sections of the specifications.

B. Provide training to Owner's personnel in installation and maintenance of products and in operation of equipment and systems.

1.02 RELATED REQUIREMENTS

A. Section 01340: Shop Drawings, Product Data and Samples.

B. Section 01700: Contract Closeout.

1.03 FORM OF SUBMITTALS

A. Prepare data in form of an instructional manual for use by Owner’s personnel. Three hard copies and an electronic copy will be required.

B. Format:

1. Size: 8 1/2" X 11".
2. Paper: 20 pound minimum, white, for typed pages.
3. Text: Manufacturer's printed data, or neatly typewritten.
4. Drawings:
   a. Provide reinforced punched binder tab, bind in with text.
   b. Fold larger drawings to size of text pages.
5. Provide fly-leaf for each separate product or each piece of operating equipment.
   a. Provide typed description of product and major component parts of equipment.
   b. Provide indexed tabs:
6. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS".
   List:
   a. Title of project.
   b. Identity of separate structure as applicable.
   c. Identity of general subject matter covered in the manual.

C. Binders:

1. Commercial quality 3-ring binders with durable and cleanable plastic covers.
2. When multiple binders are used, correlate the data into related consistent groupings.

D. In addition to the above submittal requirements, an electronic, external hard drive including maintenance and operation data must also be furnished to the Parish.

1.04 MANUAL FOR EQUIPMENT AND SYSTEMS

A. Submit three (3) hard copies of complete manual in final form along with an electronic copy.

B. Content, for each unit of equipment and system, as appropriate:

1. Description of unit and component parts.
   a. Function, normal operating characteristics, and limiting conditions.
   b. Performance curves, engineering data and tests.
   c. Complete nomenclature and commercial number of replaceable parts, which are cross-referenced with manufacturer's parts list.

2. Operating procedures:
   a. Start-up, break-in, routine and normal operating instructions.
   b. Regulation, control, stopping, shutdown and emergency instructions.
   c. Summer and winter operating instructions (if applicable).
   d. Special operating instructions.

3. Maintenance Procedures:
   a. Routine operations.
   b. Guide to "trouble-shooting".
   c. Disassemble, repair and reassemble.
   d. Alignment, adjusting and checking.

4. Servicing and lubrication schedule.
   a. List of lubricants required.

5. Manufacturer's printed operating and maintenance instructions.

6. Description of sequence of operation by control manufacturer.

7. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
    a. Predicted life of parts subject to wear.
    b. Items recommended to be stocked as spare parts.

8. As-installed control diagrams by controls manufacturer.

9. Each contractor’s coordination drawings.
    a. As-installed color coded piping diagrams.

10. Charts of valve tag numbers, with location and function of each valve.

11. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.

12. Other data as required under pertinent sections of specifications.

C. Content, for each electric and electronic system, as appropriate:

1. Description of system and component parts.
    a. Function, normal operating characteristics, and limiting conditions.
    b. Performance curves, engineering data and tests.
    c. Complete nomenclature and commercial number of replaceable parts.

2. Circuit directories of panel boards.
    a. Electrical service.
    b. Controls.
    c. Communications.

3. As-installed color coded wiring diagrams.

4. Operating procedures:
    a. Routine and normal operating instructions.
    b. Sequences required.
    c. Special operating instructions.

5. Maintenance procedures:
    a. Routine operations.
    b. Guide to "trouble-shooting".
    c. Disassembly, repair and reassembly.
    d. Adjustment and checking.

6. Manufacturer's printed operating and maintenance instructions.

7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.

8. Other data as required under pertinent sections of specifications.

D. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.

E. Additional requirements for operating and maintenance data: Respective sections of specifications.

1.05 INSTRUCTION OF OWNER'S PERSONNEL

A. Prior to final inspection or acceptance, fully instruct and train Owner's designated operating and maintenance personnel in installation, operation, adjustment and maintenance of products, equipment and systems.

B. Operating and maintenance manual shall constitute the basis of instruction. Review contents of manual with personnel, in full detail, to explain all aspects of operations and maintenance.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

SECTION 02060

ASPHALTIC CONCRETE

1.01 DESCRIPTION

This section of the specifications includes the furnishing of all labor, materials, equipment, and the performance of all asphalt work required for the construction of asphalt driveway or roadway in accordance with Sections 501, 503, 504, 505, 1002 and 1003 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition and its latest revisions.

1.02 MATERIALS

Asphalt concrete mixes and materials shall conform to the requirements of Sections 502, 504, 505, 1002, and 1003 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

1.03 GENERAL

Asphalt shall be batched and placed in accordance with the requirements of Section 503 referenced above. The mix formula shall be submitted to the Testing Laboratory for prior approval. Recycled material will be allowed per latest Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

Asphalt courses shall be laid down to grades shown on the plans and cross-sections after application of prime coat to the compacted base course. Abutting edges of existing asphalt pavement shall be tack-coated.

The testing for surface tolerance shall be in accordance with Section 501 of the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions.

The Engineer reserves the right to require removal and replacement of deficient areas.

END OF SECTION

SECTION 02085

METER BOXES AND METER BOX LIDS

PART 1 – GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment, and incidentals required to replace damaged meter boxes and/or lids.

B. Meter Boxes and/or meter lids shall only be replaced if damage is pre-existing. Damage shall be documented with pre-installation photos. Meter boxes replaced in asphalt, concrete or grass shall be replaced with cast iron boxes and lids.

C. If proposed meters cannot fit inside the existing known meter boxes, use the Item 4a of the Pricing Table to include pricing and quantity for changing the meter boxes above and beyond the original quantity in Item 4 of the Pricing Table.

1.02 SUBMITTALS

A. Conform to the requirements of Section 01340 Shop Drawings, Product Data and Samples.

B. Submit to the Engineer, in accordance with the contract documents, the following information:

1. Name, address and telephone number for the manufacturer and distributer
2. Manufacturers' product data and shop drawings for approval for each type of meter box and lid.
3. Products shall be warranted that they are manufactured in accordance with the applicable material specifications and are free from defects in workmanship and materials for one year after delivery. Any defective items shall be replaced at no cost to the purchaser.

PART 2 – PRODUCTS

2.01 METER BOXES AND LIDS

A. Jefferson Parish currently utilizes primarily cast-iron meter boxes. Below are the descriptions of the known existing boxes.

B. All lids shall have "Water Meter" or "Water" molded into the lid.

C. All lids shall sit securely and flush inside the meter box and shall not overlap the top edge of the meter box.

D. There are boxes in traffic areas. If needed, the contractor shall replace with like-kind or a Jefferson Parish approved alternative.

E. YOKE BOXES

1. Grade Adjusters: Grade adjusters shall be attached to the top of the box with stainless steel set screws and accepts both locking and lockless lids.
2. Lockless Lids: Lockless lids shall have a bar pick-up for easy removal with a screwdriver or a similar tool such as the meter box universal key.
3. Elevator Rings: Elevator rings shall have cast iron elevator ring of 3" in height and can be stacked between the upper and base units to achieve the desired height of setting.
4. Yoke boxes and lids are manufactured by Ford Meter Box Co. See attached Drawing #6 for dimensions.
5. If an existing yoke box lid is damaged, replace lid in kind. If an existing yoke box is damaged and requires replacement, replace with below Meter Box and Lid for 5/8" x ¾" and 1" meters in attached Drawing #1.

F. METER BOX AND LID ASSEMBLIES FOR 5/8"X¾" AND 1" METERS

1. Meter boxes and lid assemblies for 5/8"x¾" and 1" meters shall be cast from cast iron and meet ASTM A48 class 30B standards.
2. Meter boxes shall have oval shape dimensions of 19-1/4" L X 10-3/8" W X 11-3/8" H.
3. Lid dimensions shall be 18-5/16" L x 9-5/8" x 2" H.
4. Coating shall be a bituminous asphaltic tar**.**
5. Manufacturer: Sigma Model #MB280 or approved equal.
6. See Attached Drawing #1.

G. CAST IRON METER BOX AND LID FOR 2" METERS

1. Meter box and lid assemblies for a 2" meter shall be cast from cast iron and meeting ASTM A48 Class 30B standards.
2. Coating shall be a bituminous asphaltic tar.
3. Meter box shall be square shaped with dimensions of 24-1/4" L X 13-5/8" W X 13" H.
4. Meter box lid shall be square shaped with dimension of 23-1/2" L X 12-7/8" W X 2" H.
5. See Attached Drawing #2.

H. RECTANGULAR VALVE BOX AND COVER FOR COMMERCIAL AND RESIDENTIAL

1. Rectangular valve boxes and cover for residential and commercial use shall be a 17" x 30” x 18” valve box and cover that are injection molded of structural foam polyolefin material with a melt index between 10-12. Coloring and UV stabilization shall be added, along with processing lubricants when needed.
2. The 17"x 30"x 18” body shall be tapered and have a minimum wall thickness of .320".
3. The cover shall be the bolt-down drop-in plastic type with cast iron reader cover. The cover seat area shall have 20 structural supports ribs on the underside of the seat, each with a minimum thickness of .250".
4. The bottom of the body shall have a 1.000" flange. The 17" x 30" cover shall have an average thickness of .350".
5. These lids shall only be used in areas where box is not subjected to any traffic loading.
6. Shall be manufactured by NDS, Inc. (NDS Standard Series) or an approved equal.
7. This item is only intended to be used to replace an existing broken composite lid and/or box in non-traffic areas. The intent of this item is NOT to replace existing cast iron boxes and lids with composite cast iron boxes and lids.

I. REPLACEMENT LIDS FOR CAST IRON VULCAN METER BOXES

1. Replacement lids for Vulcan meter boxes shall be cast from cast iron and meet ASTM A48 Class 30B standards.
2. Meter box lids shall have oval shape dimensions of 18-5/16" L x 9-5/16" W x 2" H.
3. Coating shall be a bituminous asphaltic tar.
4. See Attached Drawing #1.

J. REPLACEMENT LIDS FOR CAST IRON HARPER METER BOXES

1. The meter box covers are oval shaped with dimensions of 18-1/4" L x 12-1/2" W x 2" H.
2. See Attached Drawing #4.
3. Replacement cast iron harper meter box lids are no longer available for purchase. Therefore, any Harper meter box lid that is broken, the entire meter box and lid shall be replaced.

K. REPLACEMENT VALVE BOX TOPS AND CAPS

1. Valve box tops and caps shall be available in 10" top section by 9" diameter and 16" top section by 9" diameter. Valve tops and caps shall be produced in accordance with and meet all applicable terms and provisions of ASTM A48 and are cast with 35b class cast iron. When properly installed will meet American Association of State Highway and Transportation Officials (AASHTO) H20 wheel load rating. Installation shall be as per AWWA M44, manual of water supply practices. Protective coating shall be the bituminous coating is applied by the dipping method to a mil thickness of approximately 1.0 to 1.5 mils.
2. These valve top and caps shall be manufactured by Tyler Union Quality Waterworks Products (Tyler 461-S) or an approved equal. (See Attached Drawing #3)

L. REPLACEMENT METER BOX COVER ONLY WITH 2" HOLE TO FIT EXISTING SIGMA BRAND #MB281

1. Meter box lid shall have a 2” hole. (See Attached Drawing #5)

M. REPLACEMENT/REPAIR METER VAULT AND LID FOR METERS 4” AND LARGER

1. If an existing meter vault for meters 4” and larger is in need of repair or replacement and the meter and valve cannot fit within boxes described in 2.01 E thru G above, it shall be replaced/repaired with brick and mortar walls, concrete top slab with a manhole frame and grate. Dimensions shall be determined based on meter size and laying lengths with valve dimensions in mind, as approved by the Engineer on a case by case basis. See attached Jefferson Parish Standard Detail: Brick Meter Box for 4” and Larger Meters on Drawing #7.
2. If an entire vault must be replaced, the Parish will evaluate on a case by case basis if a precast meter vault will be acceptable for replacement.
3. A composite manhole lid shall not be used to replace a cast iron manhole lid. The manhole lid shall be cast iron.

PART 3 – EXECUTION

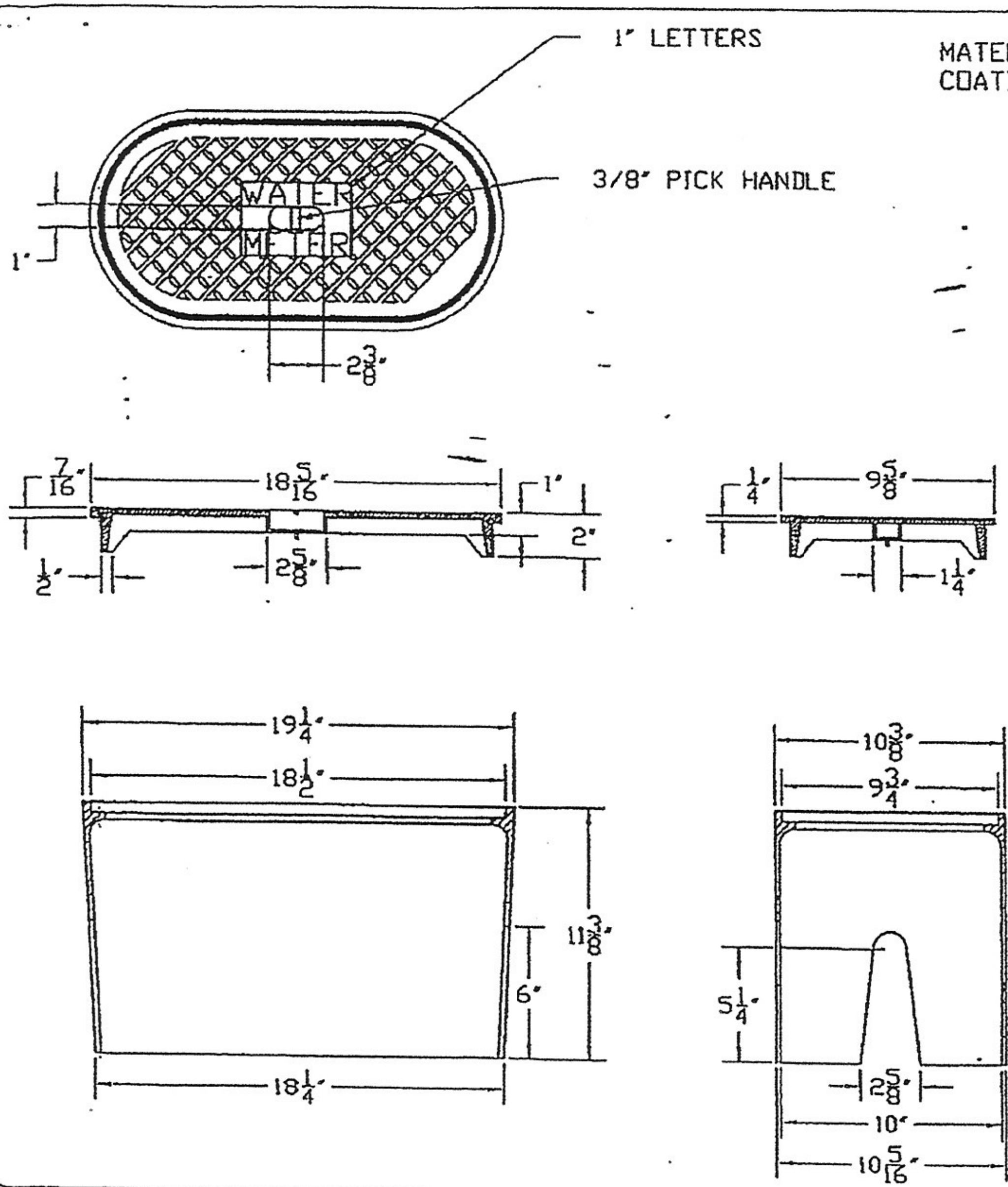
3.01 INSTALLATION

A. Prior to any installation pre-installation photos shall be captured.
   a. Minimum photo parameters shall include the following:
      i. Undisturbed damaged meter box and lid
      ii. Undisturbed existing meter box with structure it services
      iii. GPS coordinates for each photograph
      iv. Date/Time stamp for each photograph

B. The following procedures regarding water meter and water meter box replacement shall be strictly adhered to:
    a. Tarps, buckets, and shovels must be utilized at each meter and water meter box replacement to contain any excavated materials. Any excess excavated material shall be removed from the site by the contractor and not placed back into the meter box.
    b. Hand or Mechanical Pumps must be provided by contractor to remove excess water from meter boxes/vaults to perform meter replacement.
    c. After installation, each meter must be tested by running at least one gallon of water through the meter to verify no meter leakage, that meter is functioning as designed, and that dial display is showing positive water usage. All information shall be documented.
    d. Upon confirmation of proper installation, new meter data including but not limited to the address, old meter serial number, final old meter reading and new meter serial number must be double checked and translated to the AS400 meter change out interface.
    e. Service line material classification on each side of the meter (utility side and customer side) must be documented at each meter replacement within the installation software. Dropdown list recommended subclassifications include lead-line galvanized, galvanized, non-lead copper, non-lead plastic, non-lead other, unknown- likely lead, unknown- unlikely lead, and unknown- material unknown. If service line material is not visible within the meter box, contractor is required to expose the pipe material outside of the meter box only if meter box is installed in dirt, grass, or gravel, for purposes of LDH survey. The LDH pipe material survey is required on all meters, including existing meters with radio installation only.

C. Following installation, post-installation photos shall be captured.
    a. Minimum photo parameters shall include the following:
        i. Finished meter box and lid
        ii. Meter box with structure it services
        iii. GPS coordinates for each photograph
        iv. Date/Time stamp for each photograph

END OF SECTION



MATERIAL: CAST IRON ASTM A48 CLASS 30B
COATING: BITUMASTIC ASPHALTIC TAR

Appendix "A"
Page 1 of 5

BID ITEM # 0060
BID ITEM # 0070

WEIGHT:
BOX: 20 LBS.
COVER: 42 LBS

JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

JEFFERSON PARISH WATER DEPT.
5/8" X 3/4" AND 1" METERS

	J.L.		03/30/08		N.T.S.		–
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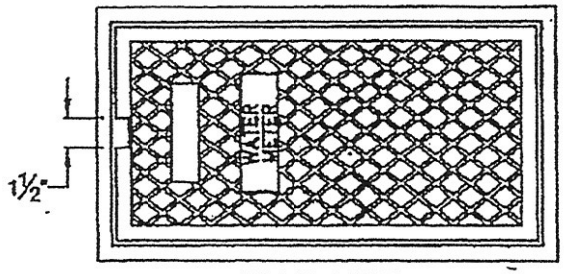
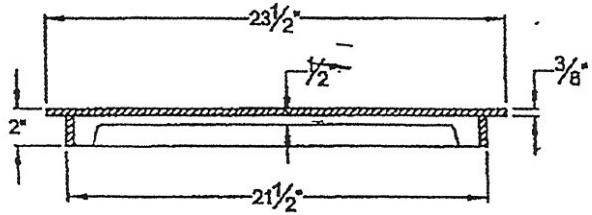
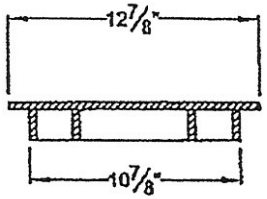
SHT 1 OF 1



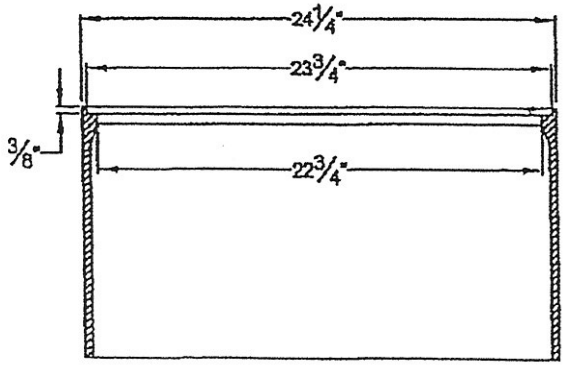
PLAN VIEW



SECTIONAL VIEW OF LID



SECTIONAL VIEW OF LID



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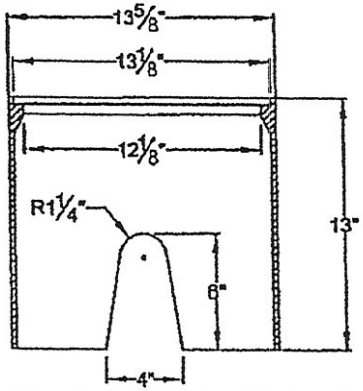


SECTIONAL VIEW OF BODY

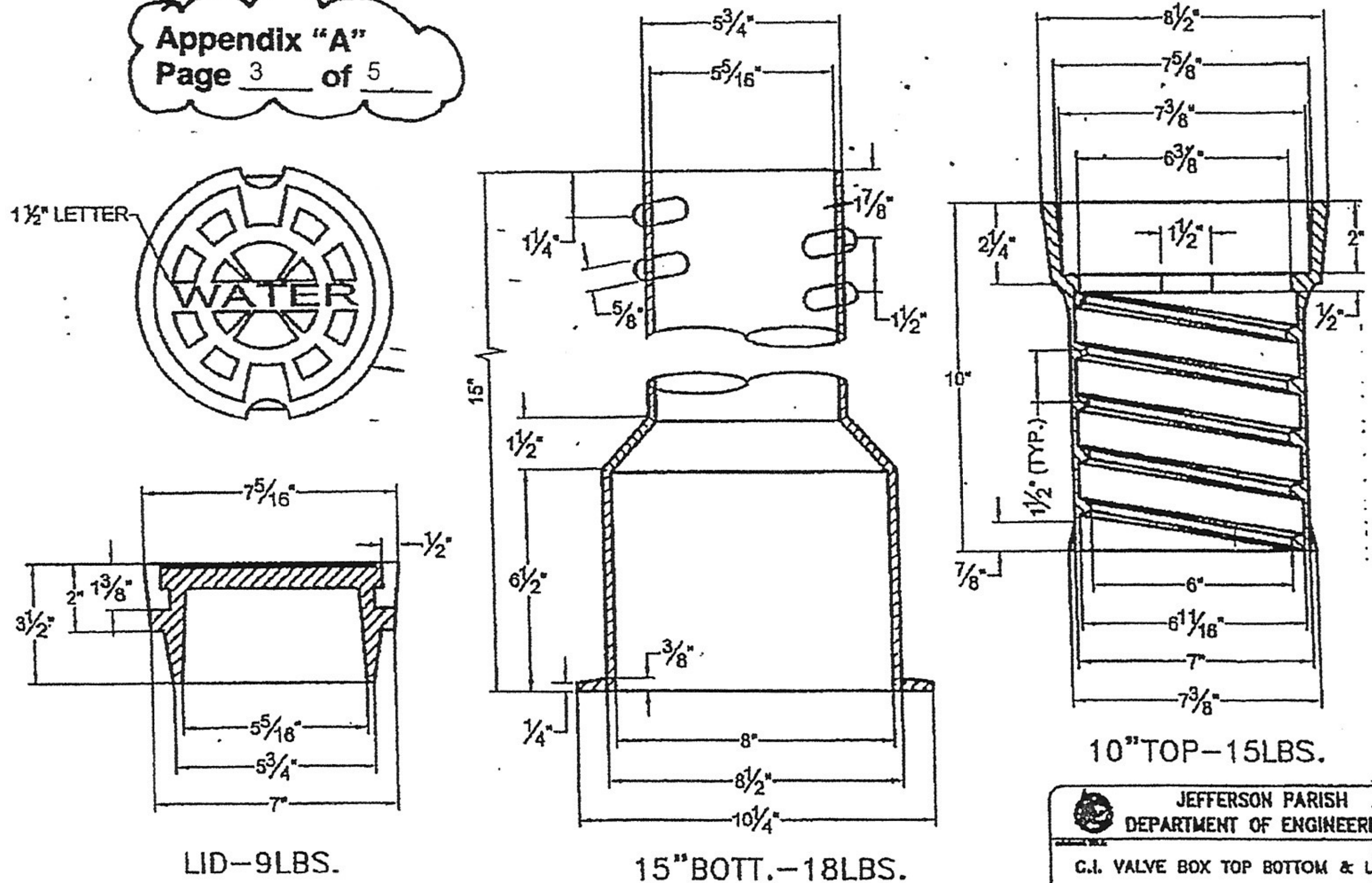
JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

2" METER BOX

CAST IRON ASTM A-48 CLASS 30B		NON-TRAFFIC		115
CHS				

ENV-10 #2

Appendix "A"
Page 3 of 5

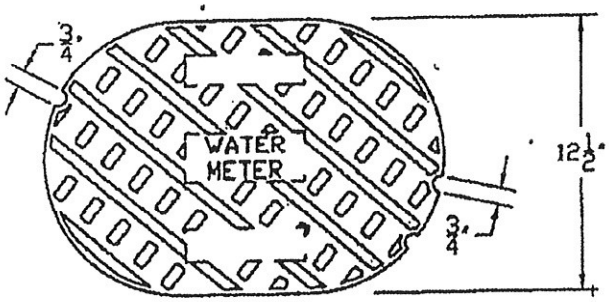


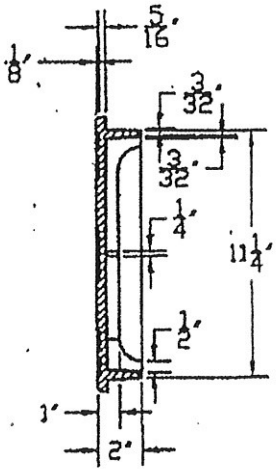
JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

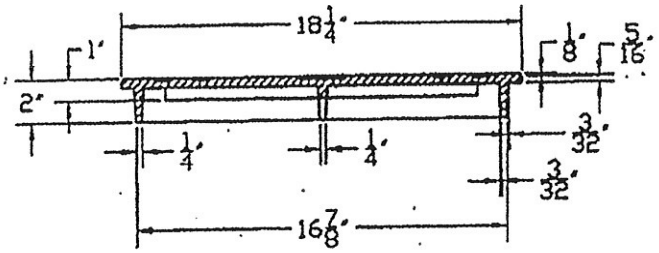
C.I. VALVE BOX TOP BOTTOM & LID

CAST IRON | PAINTED | 0LBS(SET)
CHS | 3/17/86
EHV-10 #1

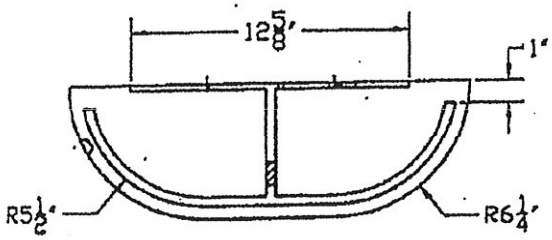
I:\Strong\Engineering\CE\Schmuck\AutoCAD\C.I. VALVE BOX TOP BOTTOM & LID.dwg



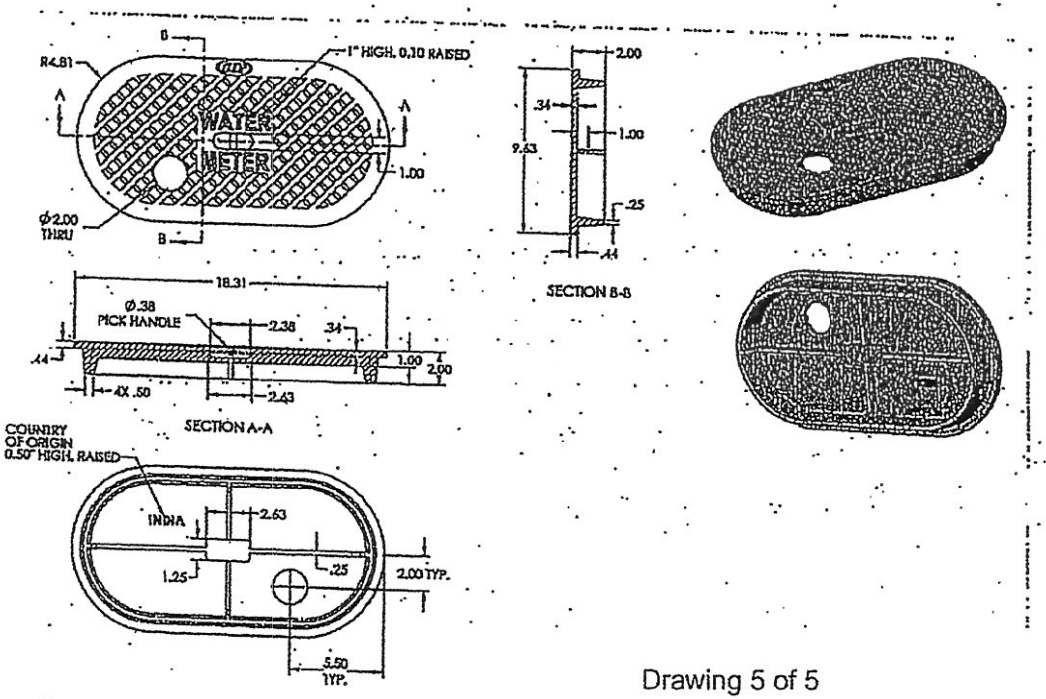




COVER EST. WGT. 24 LBS.



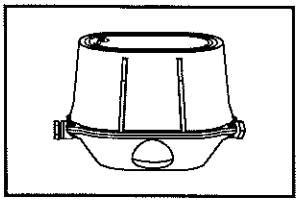
Appendix "A"
Page 4 of 5



Drawing 5 of 5

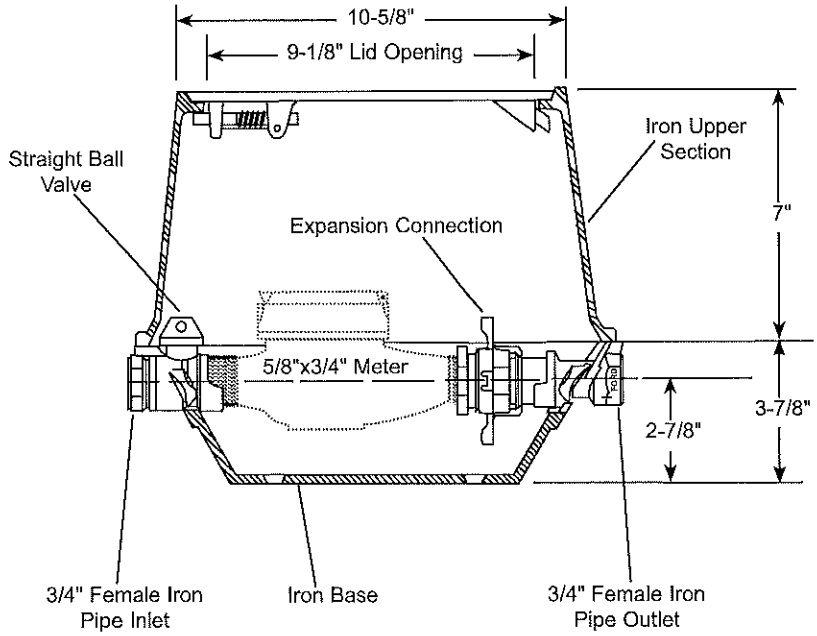
SUBMITTAL INFORMATION

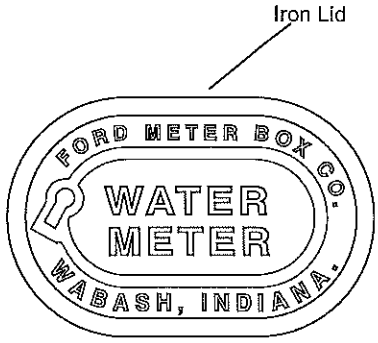
Yokebox - *(YLB111-233-NL style)*



FEMALE IRON PIPE THREAD INLET AND OUTLET

STRAIGHT BALL VALVE BY STRAIGHT OUTLET





Note: Lids shall be lockless lids, no locking mechanism needed.

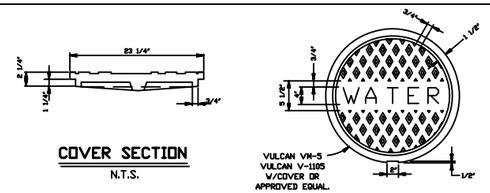
Meter Size	FIP Inlet	FIP Outlet	Approx. Wt. Lbs.	Catalog Number	✓ Submitted Item(s)
5/8"x3/4"	3/4"	3/4"	34.0	YLB111-233-NL	

FEATURES

- All brass that comes in contact with potable water conforms to AWWA Standard C800 (UNS NO C89833)
- The product has the letters "NL" cast into the main body for proper identification
- Brass components that do not come in contact with potable water conform to AWWA Standard C800 (ASTM B-62 and ASTM B-584, UNS NO C83600 - 85-5-5-5)
- Base, upper section and lid are cast iron per ASTM A48, Class 25
- The brass end fittings are permanently and properly spaced and aligned for the meter
- Finish is black E-coating
- Locking lid is standard
- Lockless lid is available; add "-LL" to catalog number

The Ford Meter Box Company, Inc.
P.O. Box 443, Wabash, Indiana U.S.A. 46992-0443
Phone: 260-563-3171 / Fax: 800-826-3487
Overseas Fax: 260-563-0167
http://www.fordmeterbox.com
02/14/13

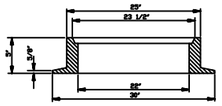
Submitted By:



COVER SECTION
N.T.S.

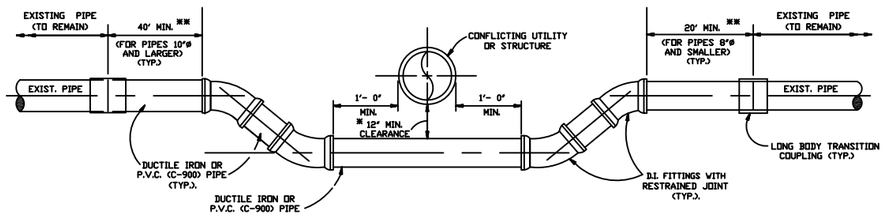
VULCAN VM-5
VULCAN V-1105 W/COVER OR APPROVED EQUAL.

FRAME COVER
N.T.S.



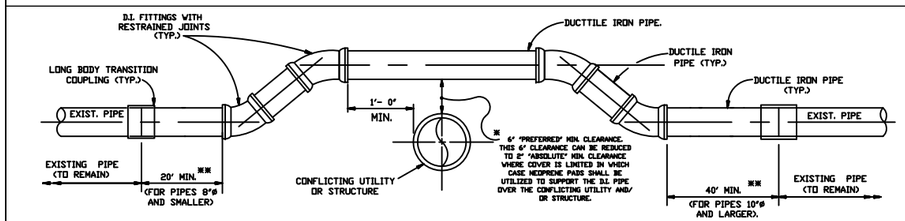
FRAME SECTION
N.T.S.

MANHOLE COVER
N.T.S.



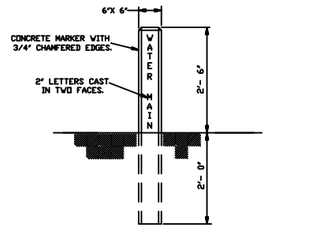
TYPICAL VERTICAL (UNDER) OR HORIZONTAL OFFSET DETAILS
FOR WATER AND SEWER FORCE MAINS
N.T.S.

* EXCEPTION. MINIMUM CLEARANCE SHALL BE 18" BETWEEN POTABLE WATER AND SANITARY SEWER LINES.
** REQUIRED MIN. RESTRAINED LENGTH.

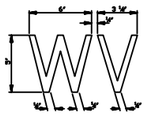


TYPICAL VERTICAL (OVER) OFFSET DETAILS
FOR WATER AND SEWER FORCE MAINS.
N.T.S.

* EXCEPTION. MINIMUM CLEARANCE SHALL BE 18" BETWEEN POTABLE WATER AND SANITARY SEWER LINES.
** REQUIRED MIN. RESTRAINED LENGTH.

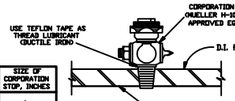


MARKER FOR WATER MAINS 14" AND ABOVE
N.T.S



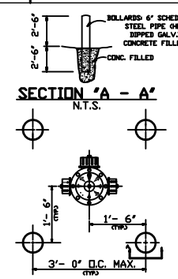
TO BE PLACED IN FACE OF NEW CURB AT EVERY VALVE.

VALVE MARKER
N.T.S.



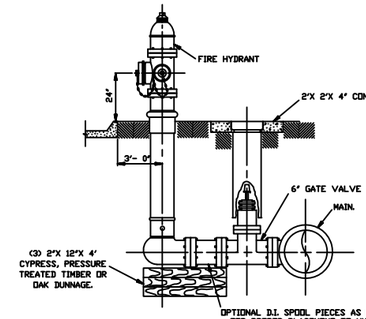
NORMAL PIPE SIZE, INCHES	SIZE OF CORPORATION STOP, INCHES
16" AND SMALLER	1
16" THROUGH 36"	2
LARGER THAN 36"	3

TYPICAL AIR VALVE INSTALLATION
N.T.S.

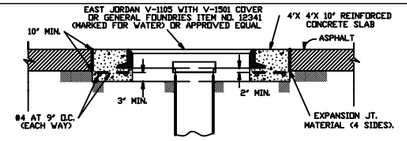


SECTION "A - A"
N.T.S.

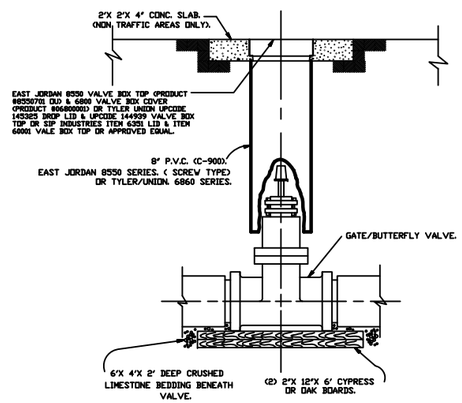
BOLLARDS FOR FIRE HYDRANTS TO PROTECT FROM TRAFFIC
N.T.S.



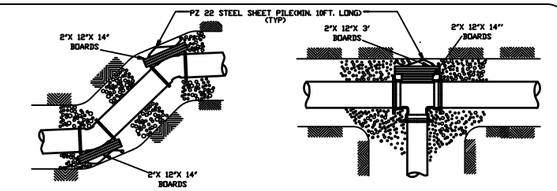
FIRE HYDRANT ASSEMBLY DETAIL
N.T.S.



VALVE BOX MANHOLE COVER FOR TRAFFIC AREAS.
N.T.S.



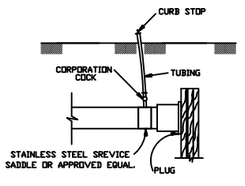
VALVE BOX DETAIL (NON TRAFFIC AREA)
N.T.S.



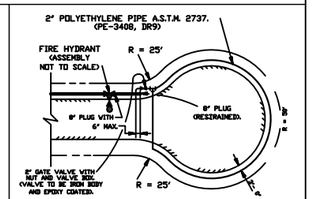
THRUST BLOCKING DETAILS *
N.T.S.

NOTE:
NUMBERS AND DIMENSIONS OF REQUIRED BOARDS WILL DEPEND ON THE PIPE SIZE AND TRENCH WIDTH AND SHALL BE DESIGNED ACCORDINGLY. BOARD AND STEEL SHEET PIPE SIZES AND DIMENSIONS SHOWN ARE TYPICAL FOR EIGHT-INCH PIPE. BOARD SHALL BE CYPRESS, PRESSURE TREATED TIMEED TIMBER OR OAK DUNNAGE.
THRUST BLOCKING DETAIL FOR LARGER PIPES SHALL BE SUBMITTED TO JEFFERSON PARISH FOR APPROVAL.

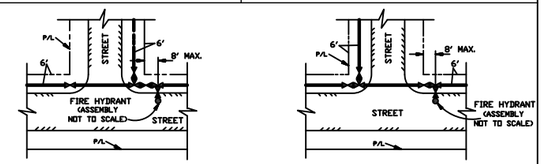
* UNLESS FIELD CONDITIONS AND / OR SPECIAL DESIGN CONDITIONS NECESSITATE, USE OF THRUST BLOCKING SHALL NOT BE PERMITTED. THRUST BLOCKS ARE PERMITTED ONLY WHEN AN ADEQUATE LENGTH OF PIPE CAN NOT BE RESTRAINED DUE TO FIELD CONDITIONS AND/OR FOR TEMPORARY CONSTRUCTION.



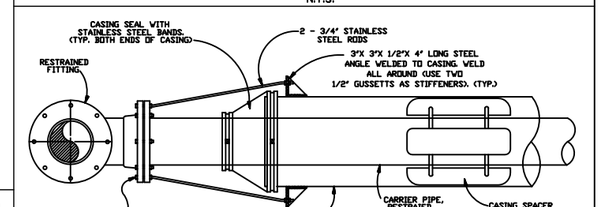
TEMPORARY BLOW-OFF DETAIL



CUL-DE-SAC DETAIL

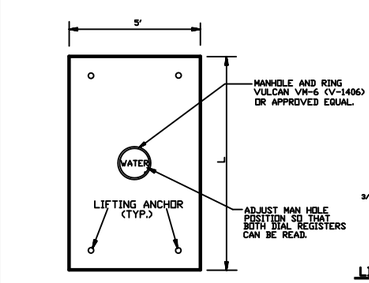


TYPICAL FIRE HYDRANT AND VALVE LOCATIONS AT INTERSECTIONS
N.T.S.

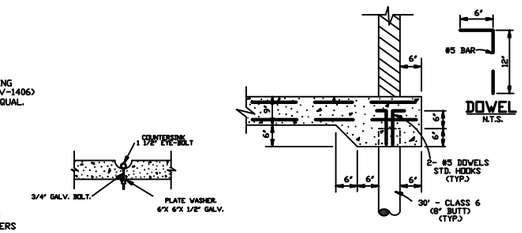


NOTE:
ALL CASING ENDS SHALL BE RESTRAINED TO THE NEAREST FITTING.

CASING RESTRAINT DETAIL
N.T.S.

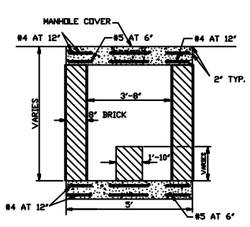


TOP VIEW
N.T.S.

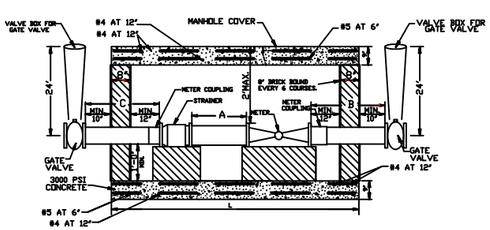


LIFT-RING DETAIL FOR EYE-HOOKS
N.T.S.

CORNER DETAIL WHERE PILE REQUIRED
N.T.S.



FRONT VIEW
N.T.S.



SIDE VIEW
N.T.S.

BRICK METER BOX FOR 4" AND LARGER METERS

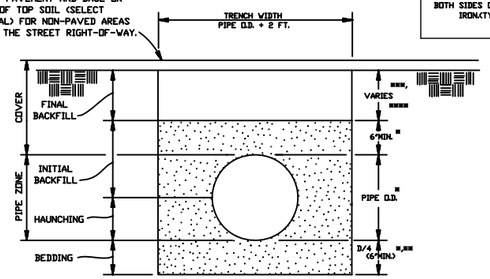
Meter Size	Approximate Meter Length (In.)	Approximate Strainer Length (In.)	Min. A (In.)	Min. B (In.)	Min. C (In.)	Min. L (in.)	Min. L (Ft. - In.)
4"	20	20	20	30	30	98	8' - 2"
6"	24	24	30	30	30	116	9' - 8"
8"	30	30	40	40	30	143	11' - 11"

PRECAST METER BOX OPTION SECIFICATIONS:

- SELF-CONSOLIDATING CONCRETE CONTAINING ADMIXTURES MEETING ASTM C494 TYPE A TO ENSURE UNIFORM SUSPENSION OF AGGREGATES THROUGHOUT.
- CONCRETE STRENGTH - 5,000 PSI (MIN.) @28 DAYS.
- REINFORCING STEEL: #4,5, AND 6 BAR PER ASTM A-615, GRADE 60.
- ASTM-A48 C-35 H-20/AASHTO M-306.
- LIFTING ANCHOR BY A.L.PATTERSON, INC. MODEL#LUA64G (OR APPROVED EQUAL) WITH MINIMUM SAFE WORKING LOAD OF 4,460 LBS PER ANCHOR.
- SHOP DRAWINGS MUST BE SUBMITTED TO JEFFERSON PARISH FOR APPROVAL.

MIN. COVER		PIPE SIZE (IN.)
3 FT.		8-10
4 FT.		>,12

STREET PAVEMENT AND BASE OR 6'-10" OF TOP SOIL (SELECT MATERIAL) FOR NON-PAVED AREAS WITHIN THE STREET RIGHT-OF-WAY.



WATER AND SEWER FORCE MAIN STANDARD TRENCH DETAIL
FOR D.I., PVC-C900, PVC-C905 AND HDPE(MIN.THICKNESS, DR.17) PIPES
N.T.S.

NOTES:
* COMPACTED SAND, ASTM 2321 CLASS II (SW OR SP) MIN. DENSITY 90% STANDARD PROCTOR (ASTM D698) 6" MAX. LAYERS.
** PROVIDE BELL HOLES AT EACH JOINT.
*** SELECT EXCAVATED MATERIAL FREE OF STUMPS, DEBRIS AND VOIDS (CANAL BANKS AND DITCHES ONLY).
**** RIVER SAND WITHIN THE STREETS RIGHT-OF-WAY MIN. DESITY 95% STANDARD PROCTOR (ASTM D698)

NOTES:
1. WHERE GROUND WATER OR UNSTABLE TRENCH BOTTOM EXISTS, TRENCH BOTTOM SHALL BE STABILIZED (ASTM D2321) TO PROVIDE A WORKING PLATFORM.
2. TRENCH DETAIL SHOWN WILL BE MIN. REQUIREMENTS TO SAFEGUARD THE INTEGRITY OF THE WATER LINE INSTALLATION AT HEREIN-SPECIFIED DEPTHS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT SHEETING AND BRACING TO PROVIDE SAFE WORKING CONDITIONS FOR HIS WORKMEN.

LEGEND:

EXISTING	PROPOSED	DESCRIPTION
		TEE, VALVE AND FIRE HYDRANT ASSEMBLY. (FLANGED OR RESTRAINED MECHANICAL JOINT)
		GATE VALVE.
		BUTTERFLY VALVE.
		CROSS.
		TEE.
		TAPPING SLEEVE AND VALVE.
		REDUCER.
		BEND

ORIGINAL 05/21/96

JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

DRAWING TITLE
WATER AND SEWER FORCE MAIN STANDARD DETAILS

REVISED BY	DATED	REVISED BY	DATED
J.C.	03/07/12	H.J.W.	02/20/03
J.C.	01-08-15	P.D.	02/09/04
CHS	12-28-17	J.L.	03/12/07
----	----	CHS	01/30/09
----	----	----	----

DRAWN BY	DATED	REVISED BY	DATED
H.J.W.	05/21/96	H.J.W.	02/20/03
H.J.W.	02/09/04	DXF TO AUTOCAD	02/11/04
H.J.W.	03/12/07	CHECKED BY R.M.	08/24/09
CHS	01/30/09	CHS	08/24/09
SIZE: AUTOCAD 2000/LT. 2000		VIN: WATER1(2000).DWG	
FILE NUMBER: 1746D			

SHEET NO. 1 OF 1

Drawing 7

SECTION 02090

CONCRETE WALKS AND DRIVES

1.01 DESCRIPTION

This work consists of furnishings and constructing portland cement concrete walks, handicap access ramps, drives and incidental paving slabs in accordance with Section 706 of Louisiana Standard Specifications for Roads and Bridges, 2016 Edition and its latest revisions. Tie-ins of existing concrete shall be made up to existing joints wherever possible and otherwise by full depth saw-cutting at no direct payment. The contractor must get prior approval from the Engineer before saw-cutting any pavement.

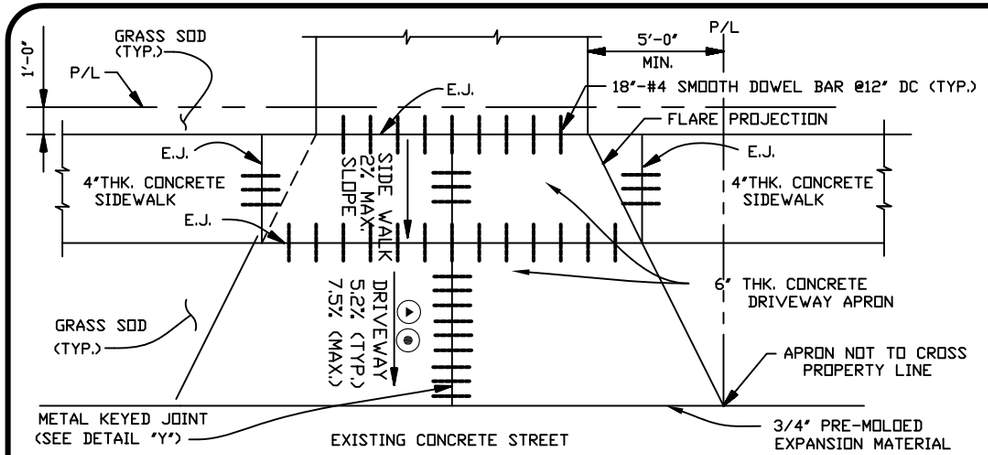
1.02 MATERIALS

All materials and construction of concrete walks and drives shall be per the Jefferson Parish Standard Driveway and Sidewalk Details attached.

1.03 TESTING

Concrete testing/cylinder breaks will be required by the Testing Laboratory for acceptance of the concrete sections.

END OF SECTION



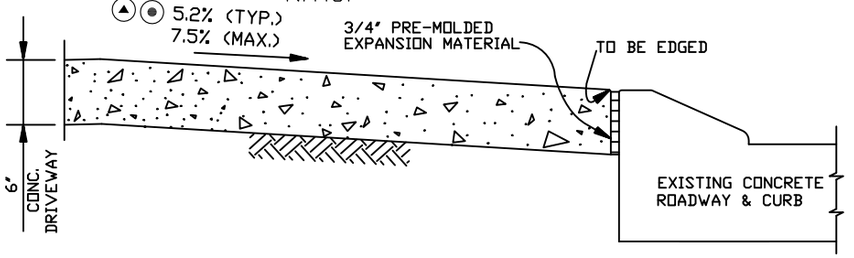
EXPANSION JOINT DETAIL FOR NEW DRIVEWAY

NOTED:
PRE-POUR INSPECTIONS ARE REQUIRED. CALL THE DEPARTAMENT OF ENGINEERING AT 504-349-5173 FOR APPOINTMENT.

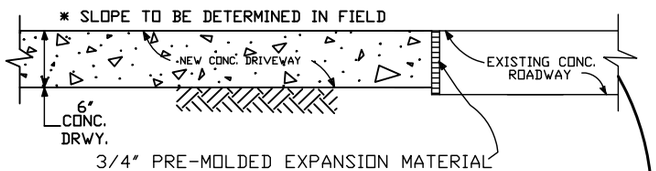
RESIDENTIAL DRIVEWAY SPECIFICATIONS

1. CONTACT THE DEPARTMENT OF ENGINEERING AT (504) 349-5173 PRIOR TO BEGINNING ANY DRIVEWAY CONSTRUCTION. ANY DEVIATION FROM STANDARD DETAILS AND SPECIFICATIONS WILL NEED THE APPROVAL OF THE DIRECTOR OF ENGINEERING.
2. ALL DRIVEWAYS SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE AND HAVE A COMPRESSIVE STRENGTH OF FOUR THOUSAND (4000) POUNDS PER SQUARE INCH IN FOURTEEN (14) DAYS. PATTERNED CONCRETE OR BRICK PAVERS ARE ACCEPTABLE.
   NOTE: THE OWNER MUST SIGN A WAIVER FORM FOR ANY PATTERNED CONCRETE OR BRICKS PUT ON THE PARISH RIGHT OF WAY. SEE ATTACHED LIST OF VARIOUS WAIVER FORMS WHICH ARE UTILIZED.
3. ALL (PCC) DRIVEWAYS SHALL HAVE A MINIMUM THICKNESS OF SIX (6) INCHES.
4. TYPICAL DRIVEWAYS SHALL BE CONSTRUCTED WITH A MINIMUM DISTANCE OF FIVE (5) FEET FROM THE SIDE PROPERTY LINE AND THE APRON SHALL NOT CROSS THE SIDE PROPERTY LINE.
5. ALL DRIVEWAYS SHALL HAVE A MAXIMUM WIDTH OF TWENTY-FIVE (25) FEET AT THE PROPERTY LINE AND A MAXIMUM OF THIRTY-FIVE (35) FEET AT THE STREET.
6. LONGITUDINAL TRANSITIONS FOR SIDEWALKS MEET DRIVEWAYS SHALL NOT EXCEED ONE (1) INCH DROP EVERY TWELVE (12) INCHES, WITH A MAXIMUM OF 6 INCHES RISE IN 6 FEET.
7. DRIVEWAY APRONS FOURTEEN (14) FEET AND WIDER MUST HAVE A METAL KEYED JOINT. (SEE DETAIL "Y").

DETAIL "A"
N.T.S.



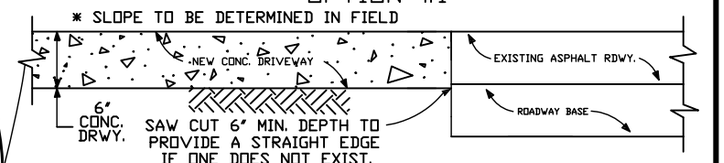
NEW DRIVEWAY CONNECTION TO EXISTING CONCRETE ROADWAY WITH ROLLOVER CURB (CURB TO REMAIN)
(N.T.S.)



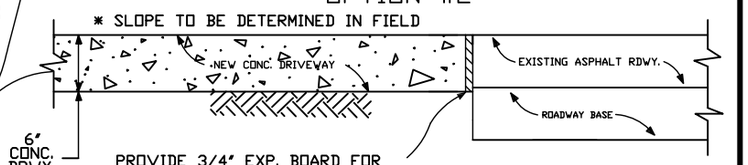
NEW DRIVEWAY CONNECTION TO EXISTING CONCRETE ROADWAY WITHOUT CURB
(N.T.S.)

*FOR CONSTRUCTION OF DRIVEWAYS ON PUBLIC RIGHT-OF-WAY WHICH TIE TO AN EXISTING ROADWAY WITHOUT AN EXISTING CURB, ELEVATION REQUIREMENTS MUST BE DETERMINED BY THE DEPARTMENT OF ENGINEERING. CONTACT THE DEPARTMENT AT (504) 349-5173 TO ARRANGE FOR DETERMINATION OF THE ELEVATION REQUIREMENTS.

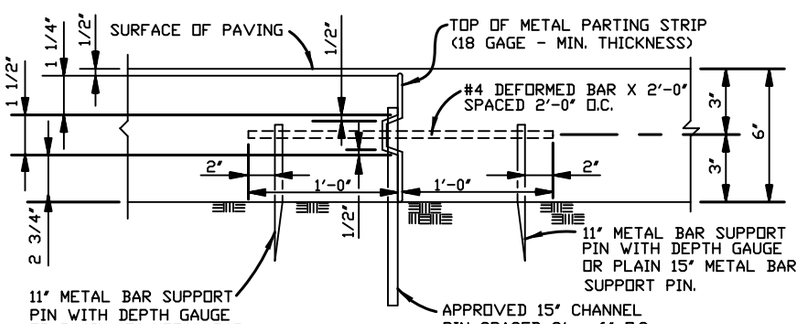
OPTION #1



OPTION #2



NEW DRIVEWAY CONNECTION TO EXISTING ASPHALT ROADWAY WITHOUT CURB.



DETAIL "Y"
N.T.S.

LIST OF VARIOUS WAIVER FORMS

1. WAIVER FOR ANY FORM OF PATTERNED CONCRETE WHETHER DYED, STAMPED, BRICK PAVERS OR BRICK EDGING.
2. WAIVER FOR NO SIDEWALK IN BLOCK AREA. (THIS WAIVER IS A NOTARIZED DOCUMENT WHICH REQUIRES PRIOR COMMUNICATION WITH THE DEPT. OF ENGINEERING BEFORE COMING IN TO SIGN.)
3. HOLD HARMLESS AGREEMENT FOR BRICK MAILBOX. THIS ALSO SERVES AS A PERMIT TO HAVE MAILBOX OVER PARISH RIGHT OF WAY.

Ⓐ THE TYPICAL STANDARD SLOPE WITHIN Ⓐ IS 5.2% (5/8" PER FOOT). THE MAXIMUM ALLOWABLE SLOPE WITHIN Ⓐ IS 7.5% (2 3/4" PER FOOT). IN THE VICINITY OF AREAS ADJACENT TO EXISTING OR PROPOSED DRIVEWAYS, ANY SLOPE GREATER THAN THE TYPICAL STANDARD SLOPE OF 5.2% (5/8" PER FOOT) MUST BE APPROVEDIN WRITING BY MR. ERROL MARTIN, JR., ENGINEERING DIVISION SUPERVISOR, AT 504-736-6793 PRIOR TO CONSTRUCTION.

Ⓑ DRIVEWAYS MUST BE DESIGNED AND CONSTRUCTED TO PROVIDE FOR A MAXIMUM LONGITUDINAL SIDEWALK SLOPE OF 8.33% (1" PER FOOT), NOT TO EXCEED A RISE GREATER THAN 6 INCHES IN 6 FEET, WHICH INCLUDES THE LONGITUDINAL TRANSITION FROM NEW SIDEWALK TO EXISTING SIDEWALK LOCATED AT THE ADJACENT PROPERTY LINE.

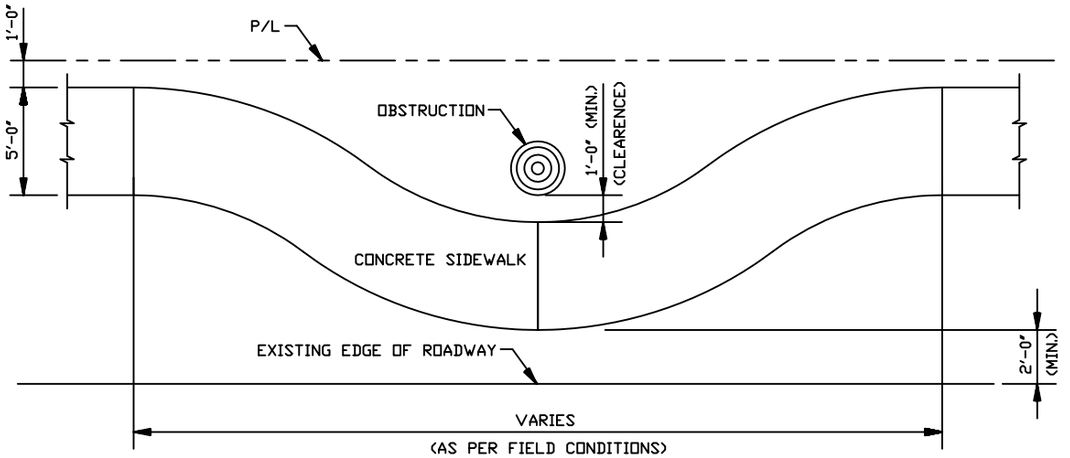
Ⓐ	Ⓑ
1'	5/8"
2'	1¼"
3'	1⅞"
4'	2½"
5'	3⅛"
6'	3¾"
7'	4⅜"

JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

DRAWING TITLE
STANDARD RESIDENTIAL DETAILS FOR CONNECTING DRIVEWAYS TO EXISTING ROADWAYS

DRAWN BY	C.H.S.	DATED 06/11/04	CHECKED BY	H.J.W.	DATED 07/29/04
REVISED BY	C.H.S.	DATED 02/09/07	REVISED BY	P.S.	DATED 02/09/07
REVISED BY	J.L.	DATED 06/01/07	REVISED BY	V.V.	DATED 06/01/07
REVISED BY	J.L.	DATED 05/12/08	REVISED BY	P.S.	DATED 05/12/08
REVISED BY	C.J.	DATED 05/13/11	REVISED BY	C.J.	DATED 05/24/15
REVISED BY	C.H.S.	DATED 01/20/16	REVISED BY	C.H.S	DATED 12/05/16
REVISED BY	C.H.S	DATED 01/18/17	REVISED BY	C.H.S.	DATED 11-19-18
REVISED BY	C.H.S.	DATED 01/28/19	REVISED BY	-	DATED -
FILE NAME	AUTOCAD 2008		VER	RESIDENTAILDRIVE.DWG	
	ENV-09				

SHEET NO. 1 OF 1

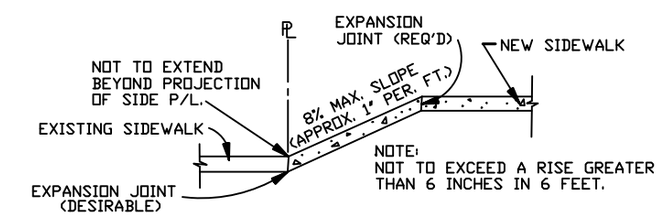


TYPICAL DETAIL FOR GOING AROUND SIDEWALK OBSTRUCTION

(N.T.S.)

* RESIDENTIAL SIDEWALK SPECIFICATIONS *

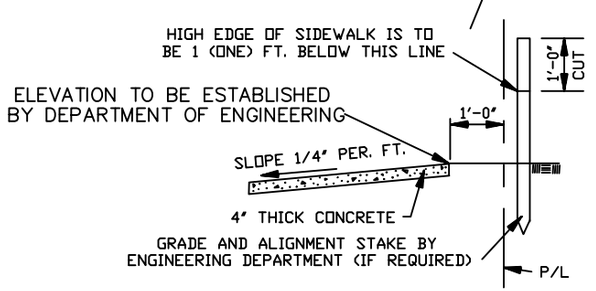
1. CONTACT THE DEPARTMENT OF ENGINEERING AT (504) 349-5173 PRIOR TO BEGINNING ANY SIDEWALK CONSTRUCTION. ANY DEVIATION FROM STANDARD DETAILS AND SPECIFICATIONS WILL NEED THE APPROVAL OF THE DIRECTOR OF ENGINEERING.
2. ALL SIDEWALKS SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE AND HAVE A COMPRESSIVE STRENGTH OF TWENTY-FIVE HUNDRED (4000) POUNDS PER SQUARE INCH IN FOURTEEN (14) DAYS.
3. ALL (PCC) SIDEWALKS SHALL HAVE A MINIMUM THICKNESS OF FOUR (4) INCHES.
4. ALL (PCC) SIDEWALKS SHALL BE CONSTRUCTED AT A DISTANCE OF ONE (1) FOOT FROM THE PROPERTY LINE UNLESS OTHERWISE ALLOWED BY THE DIRECTOR OF THE DEPARTMENT OF ENGINEERING.
5. ALL (PCC) SIDEWALKS SHALL HAVE A MINIMUM WIDTH OF FIVE (5) FEET.
6. ALL (PCC) SIDEWALKS SHALL BE SCORED AT FOUR (4) FOOT INTERVALS TO A DEPTH OF 3/4".
7. ALL (PCC) SIDEWALK SHALL HAVE EXPANSION JOINTS NO FURTHER APART THAN TWENTY (20) FEET. EXPANSION JOINTS SHALL BE CONSTRUCTED OF THREE-FOURTH INCH TREATED (ROT-RESISTANT) TIMBER, OR REDWOOD WITH MINIMUM OF (3) NO. 3 SMOOTH DOWEL BARS. (LENGTH = 12")
8. ALL (PCC) EDGES SHALL BE TOOLED TO ONE-FOURTH (1/4) INCH RADIUS.
9. NO OBSTRUCTIONS OR OPEN GRATES FOR DRAIN LINES WILL BE ALLOWED IN SIDE WALK OR R.O.W. (SEE DETAIL FOR GOING AROUND OBSTRUCTIONS.)
10. HANDICAPPED RAMPS AT CORNERS WILL BE CONSTRUCTED WITH DETECTABLE WARNINGS CONSISTING OF TRUNCATED DOMES. (SEE TYPICAL DETAILS.)
11. TRANSITION RAMPS CONSTRUCTED WHERE NEW SIDEWALK MEETS EXISTING SIDEWALK SHALL HAVE A MAXIMUM SLOPE OF 8%, (1" DROP EVERY 12"). NOT TO EXTEND A RISE GREATER THAN 6 INCHES IN 6 FEET. SUCH RAMPS SHALL NOT EXTEND BEYOND THE PROJECTED SIDE PROPERTY LINES AND SHALL HAVE AN EXPANSION JOINT AT TOP OF SLOPE. PLACE EXPANSION JOINT AT BOTTOM OF SLOPE, IF POSSIBLE. (SEE ELEVATION VIEW "A").



ELEVATION VIEW " A " OF TRANSITION FROM NEW SIDEWALK TO EXISTING SIDEWALK.

(N.T.S.)
(SEE SPEC. NO.11)

* FOR CONSTRUCTION OF SIDEWALKS ON PUBLIC RIGHT-OF-WAY WHICH TIE TO AN EXISTING ROADWAY WITHOUT AN EXISTING CURB, ELEVATION REQUIREMENTS MUST BE DETERMINED BY THE DEPARTMENT OF ENGINEERING. CONTACT THE DEPARTMENT AT (504) 349-5173 TO ARRANGE FOR DETERMINATION OF THE ELEVATION REQUIREMENTS.



TYPICAL SECTION

(NO CURB)
(N.T.S.)

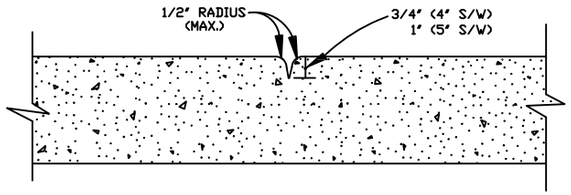
NOTED:
PRE-POUR INSPECTIONS ARE REQUIRED. CALL THE DEPARTAMENT OF ENGINEERING AT 504-349-5173 FOR APPOINTMENT.

JEFFERSON PARISH DEPARTMENT OF ENGINEERING

DRAWING TITLE: STANDARD RESIDENTIAL SIDEWALK DETAILS

DRAWN BY:	CH.S.	DATED: 06/11/04	CHECKED BY:	H.J.W.	DATED: 07/29/04
REVISED BY:	C.H.S.	DATED: 02/09/07	REVISED BY:	P.S.	DATED: 02/09/07
REVISED BY:	J.L.	DATED: 06/01/07	REVISED BY:	J.L.	DATED: 08/07/07
REVISED BY:	J.L.	DATED: 05/12/08	REVISED BY:	P.S.	DATED: 05/12/08
REVISED BY:	C.J.	DATED: 05/13/11	REVISED BY:	C.J.	DATED: 05/24/15
REVISED BY:	J.W.	DATED: 01/20/16	REVISED BY:	C.H.S.	DATED: 11-19-18
REVISED BY:	–	DATED: –	REVISED BY:	–	DATED: –

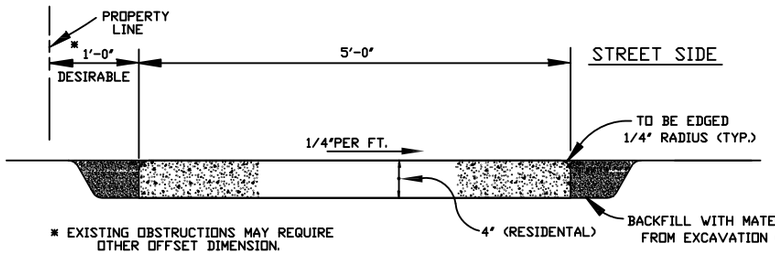
XREF: AUTOCAD 2008 — WIN: RESIDENTAILSIDEWALK.DWG
FILE NUMBER: ENV-09



HAND TOOLED CONTRACTION JOINT

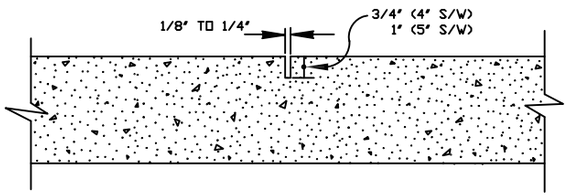
(MAXIMUM SPACING = 4'-0")

SCALE1/4" = 1"



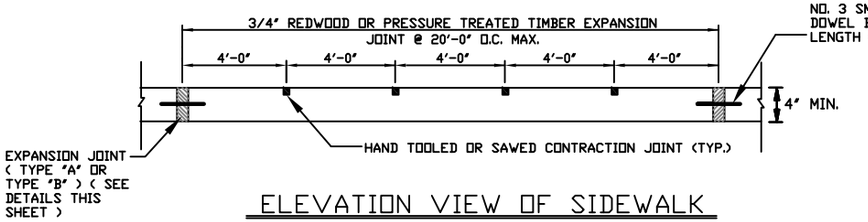
SECTION "A-A"

N.T.S.

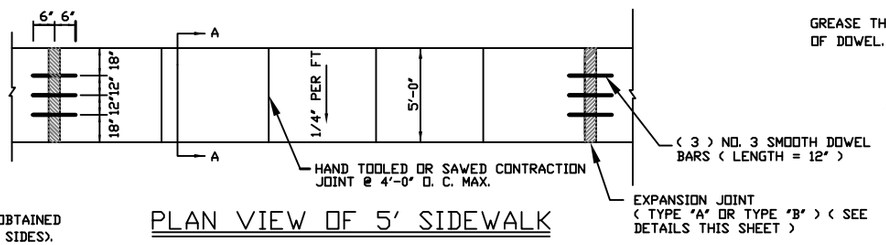


SAWED CONTRACTION JOINT

MAXIMUM SPACING = 4'-0"

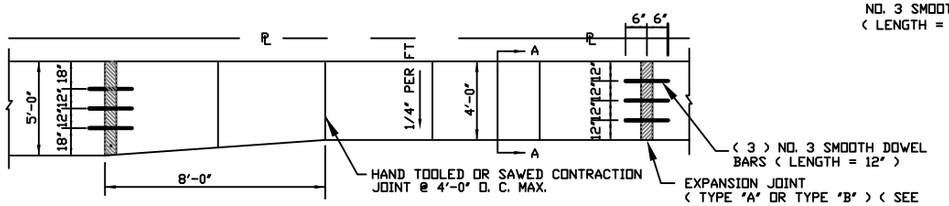


ELEVATION VIEW OF SIDEWALK



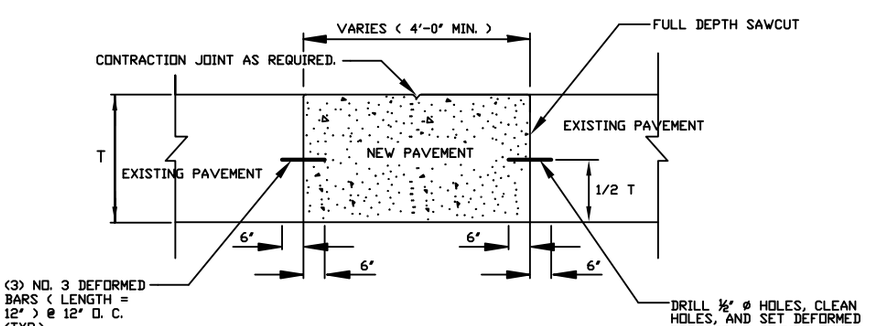
PLAN VIEW OF 5' SIDEWALK

N.T.S.



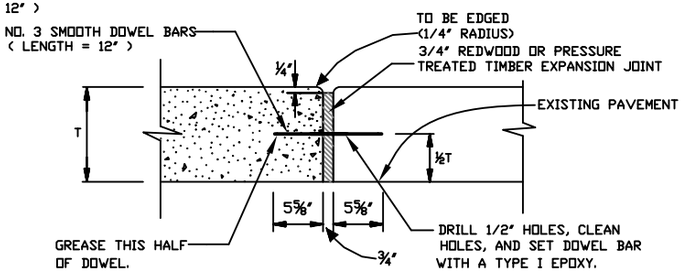
PLAN VIEW-TRANSITION OF 4' AND 5' SIDEWALKS

N.T.S.



CONSTRUCTION JOINT DETAIL FOR UTILITY CUTS AND/OR REPAIR SECTION

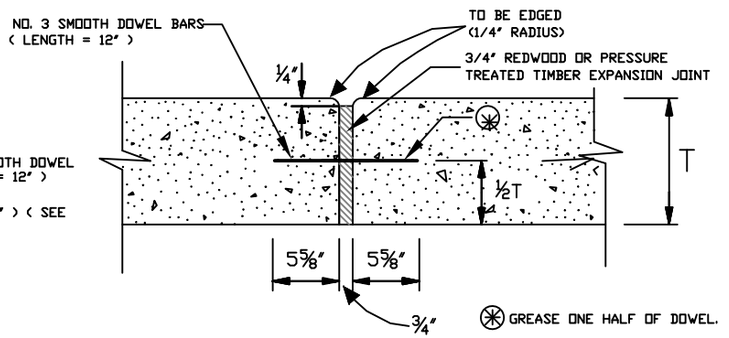
N.T.S.



EXPANSION JOINT (TYPE "B")

(MAXIMUM SPACING = 20'-0")

N.T.S.



EXPANSION JOINT (TYPE "A")

(MAXIMUM SPACING = 20'-0")

N.T.S.

NOTE!
PRE-POUR INSPECTIONS ARE REQUIRED. CALL THE DEPARTAMENT OF ENGINEERING AT 504-349-5173 FOR APPOINTMENT.

NOTE:

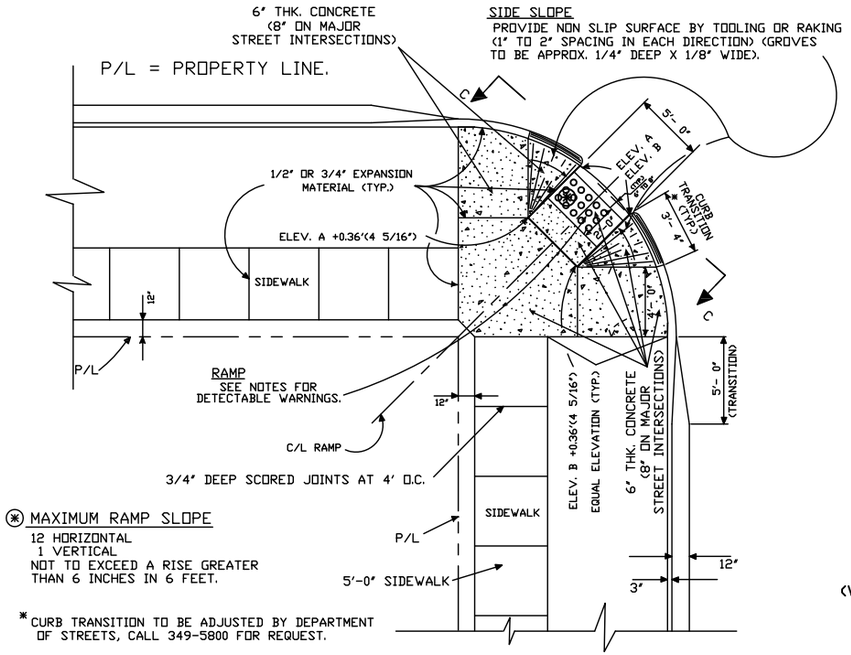
1. THE INSTALLATION OF 3FT. AND 4FT. WIDE SIDEWALKS WITHIN DEVELOPED AREAS OF JEFFERSON PARISH WILL REQUIRE THE APPROVAL OF THE ENGINEERING OPERATIONS/ MAINTENANCE PROGRAM MANAGER.

JEFFERSON PARISH
DEPARTMENT OF ENGINEERING

DRAWING TITLE: STANDARD RESIDENTIAL SIDEWALK DETAILS

DRAWN BY:	C.S.	DATED: 06/11/04	CHECKED BY:	H.J.W.	DATED: 07/29/04
REVISED BY:	C.S.	DATED: 02/09/07	CHECKED BY:	P.S.	DATED: 02/09/07
REVISED BY:	J.L.	DATED: 06/01/07	REVISED BY:	J.L.	DATED: 08/07/07
REVISED BY:	J.L.	DATED: 05/12/08	CHECKED BY:	P.S.	DATED: 05/12/08
REVISED BY:	C.J.	DATED: 05/13/11	REVISED BY:	C.J.	DATED: 05/24/15
REVISED BY:	C.S.	DATED: 10/05/17	REVISED BY:	C.S.	DATED: 11-19-18
REVISED BY:	–	DATED: –	REVISED BY:	–	DATED: –
XCEED:	AUTOCAD 2008		VDM:	RESIDENTAILSIDEWALK.DWG	
FILE NUMBER:	ENV-09				

REVISED BY: SHEET NO. 2 OF 2

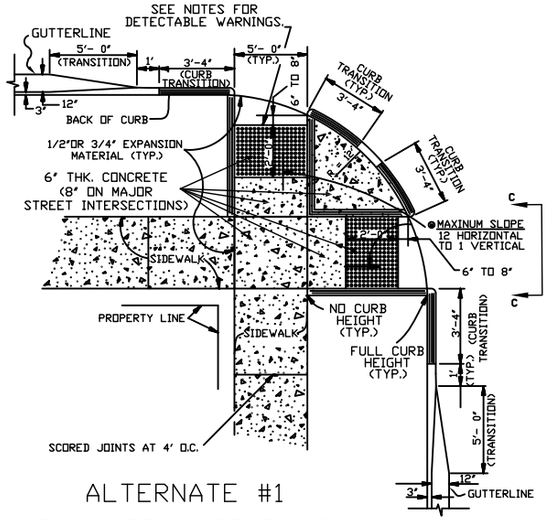


* MAXIMUM RAMP SLOPE
12 HORIZONTAL
1 VERTICAL
NOT TO EXCEED A RISE GREATER THAN 6 INCHES IN 6 FEET.

* CURB TRANSITION TO BE ADJUSTED BY DEPARTMENT OF STREETS, CALL 349-5800 FOR REQUEST.

PLAN OF TYPICAL SIDEWALK WITH RAMP FOR HANDICAPPED

N.T.S.



ALTERNATE #1

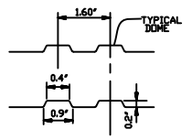
PLAN OF CURB RAMP FOR THE HANDICAPPED

(WITH APPROVAL OF THE DEPT. OF ENGINEERING)
(CORNER RADIUS = 12FT.)
N.T.S.

NOTES:

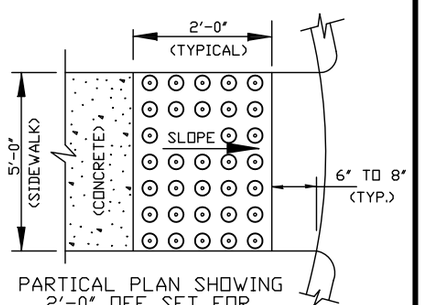
1. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCHES (23 mm) MINIMUM TO 1.4 INCHES (36 mm) MAXIMUM, A TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCHES (5 mm).
2. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6 INCHES (41 mm) MINIMUM AND 2.4 INCHES (61 mm) MAXIMUM, AND A BASE-TO-BASE SPACING OF 0.65 INCHES (16 mm) MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON SQUARE GRID.
3. TRUNCATED DOMES ON CURB RAMPS WITHIN THE STREET R.O.W. SHALL BE PREFABRICATED DETECTABLE WARNING UNITS INSTALLED DIRECTLY IN NEWLY POURED CONCRETE.
4. TRUNCATED DOMES SHALL COVER AT LEAST 2 FEET IN DEPTH AND EXTEND FULL WIDTH OF THE RAMP. ANY RAMP HAVING FLARED SIDES WILL NOT BE REQUIRED TO HAVE THESE DETECTABLE WARNINGS ON THE FLARES.
5. THE LIMITS OF THE MAIN SURFACE OF THE RAMP ON WHICH THE DETECTABLE WARNINGS ARE PLACED SHALL HAVE A REDDISH COLOR SIMILAR TO THAT OF "TERRA COTTA". THE COLOR MUST BE APPROVED BY JEFFERSON PARISH DEPARTMENT OF ENGINEERING.
6. STAMPING OF TRUNCATED DOMES WITHIN THE R.O.W. WILL NOT BE ALLOWED6

NOTED:
PRE-POUR INSPECTIONS ARE REQUIRED. CALL THE DEPARTAMENT OF ENGINEERING AT 504-349-5173 FOR APPOINTMENT.



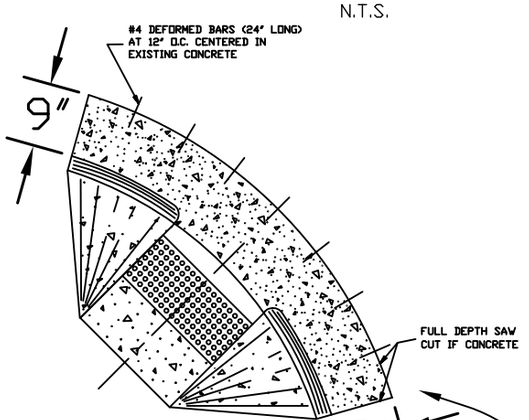
SECTION THRU TRUNCATED DOMES

(ADAAG DETECTABLE WARNINGS ON WALKING SURFACES 05/06/02)
N.T.S.

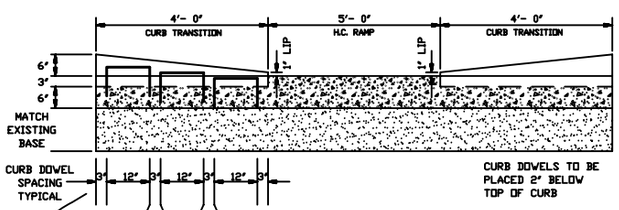


PARTICAL PLAN SHOWING 2'-0" OFF SET FOR TRUNCATED DOMES

N.T.S.

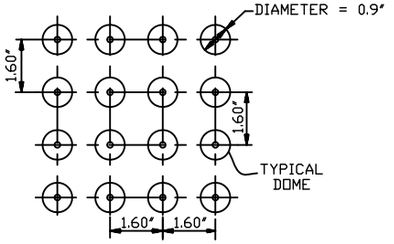


HANDICAPPED RAMP RETROFIT DETAIL



H.C. RAMP CURB DETAIL VIEW "C -C"

N.T.S.



PARTIAL PLAN OF TRUNCATED DOMES

(ADAAG DETECTABLE WARNINGS ON WALKING SURFACES 05/06/02)
(N.T.S.)

NOTE FOR HANDICAPPED RAMP CONNECTION TO EXISTING ROAD

FOR CONCRETE ROADWAY CONTRACTOR SHALL MAKE FULL DEPTH SAW-CUT FROM THE GUTTER LINE-9" IN THE ROADBED. REPLACE WITH HANDICAPPED ACCESSIBLE CURBING. IF CURB IS NOT POURED MONOLITHICALLY, CONCRETE WILL NEED TO BE DEPRESSED THREE (3) INCHES AT CURB LOCATIONS TO ALLOW FOR CURB DOWELS.

FOR ASPHALT ROADWAY CONTRACTOR SHALL MAKE FULL DEPTH SAW-CUT TO REMOVE EXISTING CURB AND GUTTER (AND POSSIBLE ASPHALT OVERLAY), AND REPLACE WITH HANDICAPPED ACCESSIBLE CURBING. IF CURB IS NOT POURED MONOLITHICALLY WITH GUTTER, CONCRETE WILL NEED TO BE DEPRESSED THREE (3) INCHES AT CURB LOCATIONS TO ALLOW FOR CURB DOWELS.

JEFFERSON PARISH DEPARTMENT OF ENGINEERING

DRAWING TITLE: STANDARD RESIDENTIAL DETAILS FOR CONNECTING HANDICAPPED RAMPS TO EXISTING ROADWAYS

DRAWN BY:	C.S.	DATED: 06/11/04	CHECKED BY:	H.J.W.	DATED: 07/29/04
REVISED BY:	C.S.	DATED: 02/09/07	REVISED BY:	P.S.	DATED: 02/09/07
REVISED BY:	J.L.	DATED: 06/01/07	REVISED BY:	P.S.	DATED: 06/01/07
REVISED BY:	J.L.	DATED: 05/12/08	REVISED BY:	P.S.	DATED: 05/12/08
REVISED BY:	C.H.S.	DATED: 02/19/09	REVISED BY:	C.J.	DATED: 10/08/10
REVISED BY:	C.J.	DATED: 05/13/11	REVISED BY:	J.W.	DATED: 07/28/14
REVISED BY:	CHS	DATED: 01/18/17	REVISED BY:	C.H.S.	DATED: 02/20/19
REVISED BY:	–	DATED: –	REVISED BY:	–	DATED: –
XSEED:	AUTOCAD 2008		VDN:	RESIDENTAILHANDRAMP.DWG	
FILE NUMBER:	ENV-09				

SHEET NO. 1 OF 1

SECTION 02100

CLEAN-UP, DRESSING, & SODDING

1.01 DESCRIPTION

This work consists of furnishing, hauling, planting, rolling, watering, and maintaining live grass sod at disturbed locations during the course of work. This work shall be done in accordance with sections 714 of the Louisiana Standard Specifications for Road and Bridges, 2016 Edition and its latest revisions. Sodding shall be the same as existed prior to construction or as directed by the Engineer. No additional compensation shall be made for different types of sodding requirements throughout the project. Sodding will be required behind the curbs on the property-side areas. All necessary watering shall be done at no direct pay.

This work also consists of clean-up of all surplus material and debris resulting from the Contractor's operation; dressing & sodding of all applicable areas within the project limits.

Any excavated material which is suitable for Topsoil may be used for fine dressing; otherwise such material shall be disposed of off-site or as directed by the Engineer. Excess excavated material shall not be placed back in meter box.

END OF SECTION

SECTION 02190

METER BOX RESETTING AND LEVELING

1.01 DESCRIPTION

A. This work consists of the adjustment of water meters boxes to grade or box re-setting as necessary to properly install water meter and the furnishing of all materials and labor to accomplish the task.

B. Meter box adjustment determinations will be made at the direction of the Engineer or his/her representative. The contractor shall receive approval for each from the Engineer or his/her representative before adjusting the water meter box to grade or re-setting.

1.02 MEASUREMENT AND PAYMENT

The accepted quantities of adjusted meter boxes will be paid for at the unit price per "EACH" which shall be full compensation for furnishing all required materials, tools, equipment, labor and incidentals and the performance of all work necessary to complete the item. Excavation and any materials required for adjustment of the meter boxes shall be considered incidental to the unit price.

END OF SECTION

SECTION 02230

WATER DISTRIBUTION SYSTEM REQUIREMENTS

1.01 GENERAL

1. In accordance with the Louisiana Sanitary Code (LAC 51:XII) Chapter 3, Section 335(D), all installations of, or repairs to, public water systems or residential and nonresidential plumbing facilities that provide drinking water and which are connected to a public water supply shall be made using **lead-free piping, solder and flux**. The only exception to this general requirement is that leaded joints necessary for the repair of cast iron pipes may be allowed. For these purposes, lead free, when used with respect to solder and flux, refers to solder and flux containing not more than 0.2 per cent lead. Additionally, when used with respect to pipes and fittings, lead free refers to pipes and fittings containing not more than 8 percent lead. Please note that the LA Legislature enacted Act 362 in 2011, which became effective on January 1, 2013, which reduced the term 'lead-free' from not containing more than 8% lead to not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

2. In accordance with the LA Sanitary Code (Title 51, Part XII), all materials including pipes, fittings, and valves shall conform to the latest standards issued by the AWWA and ANSI/NSF, where such standards exist, and be acceptable to the reviewing authority.

1.02 NOTIFICATION

The contractor shall provide Jefferson Parish Water Department with a schedule of work including the dates of when the contractor will be working in each Water Cycle. Jefferson Parish will require the contractor to provide a week notice of construction in each Water Cycle to allow the Parish to notify the residents in the area. The contractor will also be required to provide notification to residents by door hanger that they will be replacing meters in the area with a contractor contact phone number.

The contractor shall notify the Water Department 48 hours prior to any need for an outage relating to water lines, water valves, water meters, hydrants, etc. All water valves 16-inch and larger shall be operated by parish personnel. Smaller valves may be operated (operated shall mean, opening and closing. If a contractor fails to reopen a valve which he had closed during construction, he may be held liable for any cost, safety or health related issues which can be related to his negligence of leaving the valve closed.) by the contractor under the direct supervision of Parish personnel.

The Water Department shall be notified in writing by email.

END OF SECTION

SECTION 02615

DUCTILE IRON PIPE AND FITTINGS

PART 1 – GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment and incidentals required and install ductile iron pipe, and ductile iron fittings for piping complete as required and approved by the engineer.

1.02 SUBMITTALS

A. The Contractor shall submit to the Engineer, within ten days after signing of the contract, a list of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.

B. The Contractor shall furnish submittals in accordance with Section 01340.

C. The Contractor shall submit and shall comply with the recommendations of the pipe manufacturer for handling, storing, and installing pipe and fittings.

D. The Contractor shall submit the pipe manufacturer's certification of compliance with the specifications.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Ductile iron pipe shall conform to ANSI A21.51 and AWWA C151. Thickness class 52 Ductile Iron pipe items shall be accompanied with extension C52.

B. Fittings shall be ductile iron flanged, mechanical or boltless restrained joints meeting ANSI/AWWA C110/A2.10 and ANSI/AWWA C111/A21.11, Class 250, or ANSI/AWWA C153/A21.53, Class 350, compact standard. Fittings used for underground installations shall be mechanical joint. Fittings used for above-ground installations shall be flanged.

C. Fittings shall meet the requirements of ANSI/AWWA C110. Rubber gaskets shall conform to ANSI A21.11 for mechanical joints.

D. Fittings shall be available in 3" through 48" sizes and shall be cast from ductile iron in accordance with ANSI/AWWA C110/A21.10 and ANSI/AWWA C111/A21.11. Compact fittings shall be available in 3" through 24" and shall be cast from ductile iron in accordance with ANSI/AWWA C153/A21.53. All fittings shall have

working pressure rating of 350 psi.

E. Ductile iron fittings shall have factory applied fusion bonded epoxy coating inside and out, in accordance with all applicable provisions of AWWA C-550 and ANSI/AWWA C116/A21.16-98 (protective fusion-bonded epoxy coatings for the interior and exterior surfaces of ductile iron fittings for water supply services).

2.02 IDENTIFICATION

Each length of pipe and each fitting shall be marked with the name of manufacturer, size and class. All gaskets shall be marked with the name of manufacturer, size, and proper insertion direction.

PART 3 – EXECUTION

3.01 LAYING DUCTILE IRON PIPE AND FITTINGS

A. All buried piping shall be installed in accordance with recommendations of the pipe manufacturer and as specified herein.

B. Care shall be taken in handling, storage, and installation of pipe and fittings to prevent injury to the pipe or coatings. All pipe and fittings shall be examined before laying, and no piece shall be installed which is found to be defective. All damage to the pipe coatings shall be repaired according to the manufacturer's recommendations.

C. All pipe and fittings shall be kept clean and shall be thoroughly cleaned before laying.

D. All cutting of ductile iron pipe shall be done with mechanical pipe cutters except where the use of mechanical cutters would be difficult or impracticable. Ends of ductile iron pipe shall be cut with a saw, abrasive wheel, or oxyacetylene torch. Field cut holes for saddles shall be cut with mechanical cutters; oxyacetylene cutting will not be permitted.

3.02 CLEANING

At the conclusion of the work, the Contractor shall thoroughly clean all of the new pipelines by flushing with water or other means to remove all dirt, stones, pieces of wood, or other material which may have entered during the construction period. Debris cleaned from the lines shall be removed from the job site. If, after this cleaning, any obstructions remain, they shall be removed.

END OF SECTION

SECTION 02622

POLYVINYL CHLORIDE PIPE

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor shall furnish and install the polyvinyl chloride (PVC) pipe along with labor, materials (including fittings) and equipment necessary for installation as needed and approved by the Engineer.

B. If re-piping of the meter is needed, the installer shall match existing piping on the customer side of the meter in-kind unless it is galvanized or copper pipe. If galvanized or copper, then utilize PE tubing on the customer side. PE tubing shall be used on re-piping the Parish side of the meter, if required.

1.02 REFERENCES

A. ASTM D1784 Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

B. ASTM D1785 Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120

C. ASTM F441 Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80

D. ASTM F477 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe

E. ASTM F1674 Standard Test Method for Joint Restraint Products for Use with PVC Pipe

F. AWWA C-900 (PVC) Pressure Pipe and Fabricated Fittings

G. AWWA C-905 Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 48 In. for Water Transmission and Distribution

1.03 SUBMITTALS

A. The Contractor shall furnish submittals in accordance with Section 01340.

B. Certified mill tests shall be furnished the Engineer by the manufacturer for all pipe and fittings at least 10 days prior to shipment of material to the job site.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Pipe:

1. All polyvinyl chloride (PVC) pipe shall be extruded from PVC meeting the requirements of cell classification 12454-B as defined in ASTM D1784.

2. All polyvinyl chloride (PVC) pressure pipe 4 inches through 12 inches in diameter shall meet AWWA specification C-900, minimum class 150, DR18. PVC pipe 14 inches and larger in diameter shall meet AWWA specification C-905, minimum class 165, DR25.

B. Fitting and Specials:

1. The polyvinyl chloride fitting used in conjunction with Schedule 80 and SDR 26 polyvinyl chloride (PVC) pipe shall be in accordance with all applicable sections of ASTM Specifications.

2. PVC fittings in chlorine solution service shall be Schedule 80, suitable for outdoor installation.

3. The strength class of the fitting shall be not less than the strength of any adjoining pipe.

4. No polyvinyl chloride (PVC) pipe fitting will be allowed on PVC pipe used to transport water under pressure. All bends shall be ductile iron fittings meeting the requirements of Section 02615.

C. Joints:

1. The pipe will have integral bell elastomeric, gasketed joints in accordance with ASTM F477. The gaskets shall be inserted into the pipe bell at the factory prior to shipment.

2. All "O" rings furnished as part of any fitting, union, etc., conveying chloride solution shall be suitable for chlorine solution service.

D. Protective Coatings:

1. No protective coating will be required on polyvinyl chloride (PVC) pipe.

PART 3 - EXECUTION

3.01 TESTING AND INSPECTION

A. All pipe and fittings shall be subjected to a rigid inspection after delivery to the site and before being placed in the work. Any piece found defective by such field inspection will be rejected and shall be immediately removed from the premises.

END OF SECTION

SECTION 02623

POLYETHYLENE TUBING AND FITTINGS

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to install polyethylene (PE) tubing complete as needed and approved by the Engineer.

B. If re-piping of the meter is needed, the installer shall match existing piping on the customer side of the meter in-kind unless it is galvanized or copper pipe. If galvanized or copper, then utilize PE tubing on the customer side. PE tubing shall be used on re-piping the Parish side of the meter, if required.

1.02 GENERAL

A. Submit to the Engineer, in accordance with contract documents, the following information:

1. List of materials to be furnished, the names of the suppliers and the date of delivery of materials to the site.

2. The origin of the resin to be used in the manufacturing of the pipe including the supplier's name and production plant, as well as brand name and number.

3. These specifications are prepared for the purpose of furnishing and delivering new coils of ¾", 1", and 2" polyethylene PE3408/PE3608, DR9, conforming to ASTM D2737, AWWA C901, cell class 345464C, SDR 9 plastic water service tubing for the Department of Public Works, all Water Districts.

4. The quantities shown on the proposal guide are approximate quantities. Actual usage will be on an "as needed" basis.

5. All pertinent technical specifications and literature may be required upon request. Should technical specifications and literature be requested, proposer(s) will be required to submit said technical specifications and literature within ten (10) days of the request.

6. One complete, detailed shop drawing of all polyethylene pipe, including the location of all fittings, joints, and connections to structures.

7. Manufacturer's recommendations for handling, storing and installing pipe and fittings.

8. Name, address and telephone number for manufacturer and distributor.

9. Approval for potable water tubing shall meet the specifications of the national sanitation foundation testing laboratories, Inc. These specifications require that the tubing shall be manufactured of virgin PE plastic, that no regrind material shall be used and that it is satisfactory of transportation of potable water.

1.03 MATERIALS

A. The material used in the production of the tubing shall be fabricated from high density, very high molecular weight polyethylene. A statement to the effect that the tubing to be furnished meets this requirement must be furnished with the price.

B. Material specification for high-density polyethylene resin used in water service pipe and tubing physical properties.

Property	**ASTM Method**	**Value**
Density	D-1505	App.0957 GMS/CC
Melt Index	D-1238 (Condition F)	1.5 GMS/10 Min
Test Method For Tensile Properties Of Plastics	D-638	3500 PSI
Material Cell Classification	D-3350	34546C

1.04 HYDROSTATIC DESIGN STRESS REQUIREMENTS

A. The hydrostatic design stress of the polyethylene tubing made from this material shall be 800 PSI long term design strength for water 73.4 °F, as recommended by the plastic pipe institute, a division of the society of plastic industry.

1.05 WORKMANSHIP

A. The tubing shall be homogenous throughout, and free from visible cracks, holes, foreign inclusions or other defects. The tubing shall be as uniform as commercially practicable in color, capacity, density, and other physical properties.

1.06 MARKINGS

A. The tubing shall be permanently imprinted and shall include the following, spaced at intervals of not more than three (3) feet:

a. The nominal tubing size ¾", 1", or 2".
b. The type of PE plastic tubing material in accordance with the designation code of PE3408/PE3608.
c. Standard dimension ratio, SDR 9-OD.
d. The pressure rating for water at 23°C (73°F), 200 psi
e. The ASTM specification designation with which the tubing complies
f. The manufacturer's names (or trademark) and code. It also shall include the seal of approval (or "NSF" mark) or the national sanitation foundation.

1.07 PACKAGING

A. Tubing shall be coiled and package for protection against dirt and damage during shipment, handling, and storage. Tubing package shall be fully labeled with brand name and manufacturer, the NSF seal, and the size and coil length. The ¾" inch size tubing shall be package in 500' lengths: the 1" size in 300' lengths, 2" size in 100' lengths and 2" size in 300' lengths.

1.08 DIMENSIONS OF POLYETHYLENE WATER TUBING

A. Nominal O.D. shall conform to the dimensions of copper tubing for use with standard fittings or compression type fittings. This wall thickness for 200 psi working pressure for 3/4" and 1" tubing shall be dictated by the 800 psi hydrostatic design stress and a dimensional ratio of 9 O.D.

Nominal Size (IN)	Outside Diameter (IN)	Wall Thickness (IN)
¾	0.875	0.097
1	1.125	0.125
2	2.125	0.236

1.09 WARRANTY

A. The pipe manufacturer shall provide a warranty against manufacturing defects of material and workmanship for a period of ten years after the final acceptance of the project by the Owner. The manufacturer shall replace, at no additional cost to the Owner, any defective pipe material within the warranty period.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.01 WORK INCLUDED

Contractor shall furnish all labor, materials, tools, equipment and related items required to do the cast-in-place concrete work as specified herein.

1.02 QUALITY ASSURANCE

Perform cast-in-place concrete work in accordance with ACI 318, unless specified otherwise in this section.

1.03 REFERENCES

A. ASTM C33 - Concrete Aggregates

B. ASTM C150 - Portland Cement

C. ACI 318 - Building Code Requirements for Reinforced Concrete

D. ASTM C260 - Air Entraining Admixtures for Concrete

E. ASTM C494 - Chemical Admixtures for Concrete

F. ASTM C94 - Ready-Mixed Concrete

G. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete

H. ACI 305 - Recommended Practice for Hot Weather Concreting

I. ACI 306 - Recommended Practice for Cold Weather Concreting

J. ACI 301 - Specifications for Structural Concrete for Buildings

PART 2 – PRODUCTS

2.01 CONCRETE MATERIALS

A. Cement: Normal-Type II, High early strength-Type III, Portland type, ASTM C150.

B. Fine and Coarse Aggregates: ASTM C33. At the time of its use, the aggregate shall be free from all foreign material or dirt which may become mixed with the aggregate stockpile. If less than 2% of the fine aggregate passes a No. 100 sieve, limestone dust shall be added to provide this minimum percentage.

C. Water: Clean, and free from injurious amounts of oil, alkali, organic matter, or other deleterious material.

2.02 ADMIXTURES

Each of the following admixtures shall be used when required and shall be used when so instructed by the Owner. They shall comply with the appropriate specifications as indicated.

A. Air Entrainment: ASTM C260.

B. Chemical: ASTM C494 Type A - water reducing and Type B - retarding admixture.

2.03 ACCEPTABLE MANUFACTURERS

The Acceptable Manufacturers of ready mix concrete must have sufficient plant capacity and ready mix transportation trucks to insure a continuous delivery to the job site; the rate should be such that the interval between batches shall not exceed 20 minutes. The methods of delivering the concrete shall be such that they will facilitate its placing with a minimum of rehandling and without damaging the concrete or its forms.

2.04 ACCESSORIES

A. Bonding Agent: Two component modified epoxy resin; Non-solvent two component polysulphide-epoxy; Mineral filled polysulphide polymer epoxy resin; manufactured by Sika Chemical Corp. or approved equal.

B. Non-shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2400 psi in 2 days and 7000 psi in 28 days.

2.05 CONCRETE MIXES

A. Mix concrete in accordance with ASTM C94.

B. Provide concrete of following strength:

1. Compressive strength 4000 psi.

2. Select proportions for normal weight concrete in accordance with ACI 301 3.8 by Method 1, Method 2, or Method 3. Add air entraining agent to concrete to entrain air as indicated in ACI 301 Table 3.4.1.

C. Add air entraining agent to concrete mix for concrete work exposed to exterior.

D. Weather Conditions

1. Cold Weather

a. The minimum temperature of the concrete when delivered at the site of the work shall conform to the following temperature limitation:

Air Temperatures Degrees F.	Minimum Concrete Temperature, Degrees F. For Sections Less than 12 in. thick	For Sections 12 in. to 36 in. thick
30 to 45	60	50
0 to 30	65	55
Below 0	70	60

2. Provisions shall be made for maintaining concrete moist and at a minimum temperature of not less than 50°F for a period of at least 7 days.

3. Hot Weather

a. The maximum temperature of the concrete when delivered at the site of the work shall not exceed 85 degrees Fahrenheit.

b. The ingredients shall be cooled before mixing, or flake ice or well-crushed ice of a size that will melt completely during mixing may be substituted for all or part of the mixing water if necessary to maintain the temperature of the concrete below 85 degrees Fahrenheit.

c. A retarding agent complying with ASTM C-494 Type B shall be used under the following circumstances:

i. If the temperature of the air is above 85 degrees Fahrenheit.

ii. If the temperature of the concrete as placed is above 80 degrees Fahrenheit.

iii. Where large pours are permitted, to allow all portions to remain plastic until adjacent concrete is placed.

PART 3 – EXECUTION

3.01 PLACING CONCRETE

A. Place concrete in accordance with ACI 304.

B. Notify Engineer minimum 24 hours prior to commencement of concreting operations.

C. Notify testing lab prior to all concrete placements. During concrete placement, one set of four cylinders shall be made for each 100 cubic yards of concrete placed.

D. Verify anchors, seats, plates, and other items to be cast into concrete are placed, held securely, and will not cause hardship in placing concrete. Rectify same and proceed with work.

E. Maintain records of poured concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

F. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints, are not disturbed during concrete placement.

G. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.

H. Conform to ACI 305 when concreting during hot weather.

I. Conform to ACI 306 when concreting during cold weather.

3.02 PATCHING

Allow Engineer to inspect concrete surfaces immediately upon removal of forms. Patch imperfections as directed.

3.03 DEFECTIVE CONCRETE

A. Modify or replace concrete not conforming to required lines, details and elevations.

B. Repair or replace concrete not properly placed resulting in excessive honeycombing and other defects. Do not patch, fill touch-up, repair, or replace concrete except upon express direction of Engineer for each individual area.

3.04 CURING AND PROTECTION

Beginning immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration

of cement and hardening of concrete.

END OF SECTION

SECTION 11910

WATER METERS

1.0 GENERAL

1.01 SCOPE OF WORK

A. The scope of work is to replace approximately 140,088 existing residential and commercial water meters with new, positive displacement advanced metering infrastructure (AMI) compatible meters. All meters shall have a brass, bronze alloy, or epoxy coated ductile iron housing and a mechanical dial register with a Nicor connector which enables connection to a battery operated radio transmitter. Depending on the type of existing meter, commercial meters shall be replaced with compound or turbine meters.

B. The contractor shall provide and install all meter hardware that comprise the proposed water meters including meter housing, measuring elements, sealed register, or encoder, etc.

C. Existing 2” and smaller Badger water meters (Models 25, 70, and 170) with existing ERT connector in working condition shall not be replaced (approximately 20,500).

D. Existing water meters in Grand Isle and Lafitte may be buried due to the effects of Hurricane Ida. Existing water meters in Lafitte shall be uncovered and replaced. Existing Grand Isle water meters shall be uncovered and inspected according to the procedures herein. Those determined to be in working condition shall not be replaced if are Badger meter models listed in Paragraph C above.

E. The existing water meters that are removed during replacement installation shall remain the property of the Jefferson Parish. The Contractor will be required to remove the meters and dispose of them in the Parish designated areas below:

<u>East Bank:</u>
Public Works Central Warehouse
4901 Jefferson Highway Suite C
Jefferson, LA 70121

OR

3600 Jefferson Highway
Jefferson, LA 70121

West Bank:
Public Works West Bank Warehouse
1500 River Park Blvd.
Bridge City, LA 70094

F. Below are the required meter qualifications and documentation to be submitted with the proposal.

	Required Qualifications	**Required Documentation**
Proposer	10 years water meter experience	Complete list of water meter projects from last 10 years with verifiable project references
Key Staff	5 years water meter/AMI experience with at least 1 project of 75,000 meters and radios	Key staff resumes with water meter experience
Meter Manufacturer	10 years of water meter experience with at least 3 projects of 75,000 meters or more with the proposed meters	Complete list of water meter projects from last 10 years with verifiable project references
AMI Manufacturer	10 years of AMI experience with at least 3 projects of 75,000 radios or more with the proposed system	Complete list of AMI projects from last 10 years with verifiable project references
Installation Company	10 years of water meter installation experience with at least 3 projects of 75,000 meters or more	Complete list of water meter projects from last 10 years with verifiable project references

1.02 SUBMITTALS

A. Submit to the Engineer, in accordance with Section 01340, copies of all materials required to establish compliance with this Section. Submittals shall include at least the following:

1. Certified drawings showing all important details of construction and dimensions of water meter equipment.
2. Descriptive literature, bulletins, and/or catalogs of the equipment.
3. All information required by Section 01340.
4. All warranty information.

B. Operation and Maintenance Data

1. Operating and maintenance data shall be furnished to the Engineer as provided in Section 01730. The instructions shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions, etc., that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.03 TESTING

A. The Parish expects the manufacturer of meters submitted as part of the proposal to submit its meters to vigorous quality control and testing prior to shipping. All meter accuracy tests shall be conducted in accordance with AWWA test methods and meter standards. The manufacturer shall furnish to the Parish an electronic copy of test results. Specific information contained within the test results shall include the manufacturer serial number, date of testing, flow rates, results of each flow rate test, size of meters being tested, model number, and the tester. Equipment shall be subjected to installation to ensure compliance with the specifications. Shipments of equipment shall be subject to sampling (according to ANSI/ASQ Z1.4) and testing for compliance with specifications. Shipments failing the sampling and testing protocol shall be rejected in their entirety and returned to the supplier. Any individual pieces of material which fail inspection shall also be rejected and returned to the supplier. All freight costs and any other costs incurred by the rejection will be borne by the supplier.

1.04 WARRANTY

A. Positive Displacement Water Meters

1. Materials & Workmanship
   - Housings – Shall be free from defects in materials and workmanship for a minimum of 25 years after shipment from manufacturer.
   - Registers/Encoders – Shall be free from defects in materials and workmanship for a minimum of 20 years (10 years full replacement and 10 years prorated) after shipment from manufacturer.
2. AWWA New Meter Accuracy
   - 5/8”x3/4” – Shall be warranted to meet or exceed new meter accuracy standards set forth in AWWA Standard C700 for five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

- 1” – Shall be warranted to meet or exceed new meter accuracy standards set forth in AWWA Standard C700 for five (5) years from date of shipment or registration of 1,000,000 gallons, whichever occurs first.
- 2” – Shall be warranted to meet or exceed new meter accuracy standards set forth in AWWA Standard C700 for two (2) years from date of shipment or registration of 2,000,000 gallons, whichever occurs first.

3. AWWA Repaired Meter Accuracy
   - 5/8”x3/4” – shall meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6 Chapter 5, Table 5.3 for fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 25 gpm safe maximum operating capacity and a 15 gpm maximum rate for continuous operation.
   - 1” – shall meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6 Chapter 5, Table 5.3 for fifteen (15) years from date of shipment or registration of 3,000,000 gallons, whichever occurs first, with a 70 gpm safe maximum operating capacity and a 50 gpm maximum rate for continuous operation.
   - 2” – shall meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6 Chapter 5, Table 5.3 for fifteen (15) years from date of shipment or registration of 10,000,000 gallons, whichever occurs first, with a 170 gpm safe maximum operating capacity and a 100 gpm maximum rate for continuous operation.
4. Extended Low Flow Meter Accuracy
   - 5/8”x3/4” – shall also be warranted to meet or exceed low flow accuracy of 98.5% at a rate of ¼ gpm and low flow accuracy of 95.0% at a rate of 1/8 gpm for five (5) years from date of shipment or registration of 650,000 gallons, whichever occurs first.
   - 1” – shall also be warranted to meet or exceed low flow accuracy of 95% at a rate of 3/4 gpm for three (3) years from date of shipment or registration of 1,000,000 gallons, whichever occurs first.
   - 2” – shall also be warranted to meet or exceed low flow accuracy of 95% at a rate of ¼ gpm for two (2) years from date of shipment or registration of 1,750,000 gallons, whichever occurs first.

B. Turbine Meters
1. Material and Workmanship
   - Housing – Shall be free from defects in materials and workmanship for a minimum of one (1) year and six (6) months after shipment from manufacturer.

- Register/Encoder – Shall be free from defects in materials and workmanship for a minimum of 20 years (10 years full replacement and 10 years prorated) after shipment from manufacturer.

2. Accuracy – Shall meet or exceed accuracy standards of AWWA Standard C701 for one (1) year and six (6) months after shipment from manufacturer.

C. Compound Meters

1. Material and Workmanship
   - Housing – Shall be free from defects in materials and workmanship for a minimum of one (1) year and six (6) months after shipment from manufacturer.
   - Register/Encoder for low flow registration – Shall be free from defects in materials and workmanship for a minimum of 20 years (10 years full replacement and 10 years prorated) after shipment from manufacturer.
   - Register/Encoder for high flow registration – Shall be free from defects in materials and workmanship for a minimum of 20 years (10 years full replacement and 10 years prorated) after shipment from manufacturer.
2. Accuracy – Shall meet or exceed accuracy standards of AWWA Standard C702 for one (1) year and six (6) months after shipment from manufacturer.

D. 3” Fire Hydrant Meter with 2” Gate Valve, Backflow Preventor and Mechanical Dial Register

1. Material and Workmanship
   - Housing – Shall be free from defects in materials and workmanship for a minimum of one (1) year and six (6) months after shipment from manufacturer.
   - Register – Shall be free from defects in materials and workmanship for a minimum of five (5) years and six (6) months after shipment from manufacturer.
2. Accuracy - Shall be warranted to meet or exceed new meter accuracy standards set forth in AWWA Standard C700 for one (1) year and six (6) months from date of shipment.

E. All proposers shall submit warranty documentation for all meter equipment proposed.

F. The contractor shall be responsible for correcting any leaks at the valves, couplings, service lines or main lines that could reasonably be attributed to the meter installation if reported by the Owner within sixty (60) days of installation.

2.0 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. All meters supplied on this project including positive displacement, turbine, compound meters, and fire hydrant meters shall be from one single source meter manufacturer.

B. Meters shall be guaranteed to operate under a working pressure of 150 psi without leakage or damage to any part.

C. Jefferson Parish requires that meters are non-electronic and that meter registers are mechanical dial meter registers, not digital.

D. All new meters/registers including fire hydrant meters shall be supplied with a Nicor connection to connect to the licensed fixed network AMI radios. Connections shall be 6 feet in length for all meters.

E. Positive Displacement, Turbine and Compound meters shall be manufactured with integral strainers or external strainers must be provided. All strainers shall conform to AWWA specifications. Strainers, whether internal or external to the meter, shall be included in the price of the meter.

F. The proposal shall include the performance specifications of all proposed meters.

G. The proposal shall include the dimensions of all proposed water meters and provide a statement stating whether the proposed meters can fit within the existing meter boxes listed in Meter Boxes and Meter Box Lids Spec Section 02085.

H. RESIDENTIAL METERS (5/8” – 2”)

1. Jefferson Parish requires positive displacement residential meters.
2. Jefferson Parish requires a brass, bronze alloy or epoxy coated ductile iron meter body. Metal threads are the required connection on the meter housing bodies for the 5/8 x ¾” and 1” meters.
3. Jefferson Parish requires that any existing 2” positive displacement meter be replaced with a new 2” positive displacement meter. This is reflected in the Pricing Table quantities.
4. Meters to be furnished shall meet or exceeds the American Water Works Associations Standards C-700-09 or latest revision.
5. Meters shall comply with the lead-free requirements as defined by NSF/ANSI Standard 61, Annex G (NSF 372) and 2014 provisions of the Safe Drinking Water Act.
6. Operating Characteristics required are as follows:

METER SIZE	LOW FLOW	TYPICAL OPERATING RANGE	MAXIMUM CONTINUOUS FLOW	PRESSURE LOSS (NOT TO EXCEED)
5/8” X 3/4”	0.25 GPM	0.50 to 25 GPM	15 GPM	2.8 PSI @ 15 GPM
1”	0.75 GPM	1.25 to 70 GPM	50 GPM	6.5 PSI @ 50 GPM
2”	1.50 GPM	2.50 to 170 GPM	100 GPM	3.3 PSI @ 100 GPM

Flow ratings shall be 25 GPM for ⅝"x ¾" meters, 70 GPM for 1" meters, and 170 GPM for 2” meters.

7. Laying Lengths required are as follows:

METER SIZE	LAYING LENGTH
⅝"x ¾"	7-½"
1"	10-¾"
2"	17”

Note: There can be no change in the laying length measurements as new meters must fit in the same space as the existing installations, or additional box replacement quantities must be included in the pricing table if the new meters cannot fit in the existing boxes.

8. Meter registers must use an encoder technology with mechanical odometer. Pulse technology will not be accepted.
9. Registers should be magnetic-driven, easily read with unobstructed number wheels. LCD displays are not accepted unless otherwise specified.
10. Proposer shall provide responses and prices for each meter type offered, separately, to allow the Parish to compare prices.
11. Proposer shall provide pricing and detailed information on meter types, register, measuring element, external housing, meter spud and connection sizes, pressure capabilities, operating characteristics and laying lengths in tables provided in Attachments G.

I. COMMERCIAL METERS

1. Jefferson Parish requires turbine and compound commercial meters.
2. TURBINE METERS (3”, 4”, 6”, 8”, 10”, and 12”)
    a. Turbine meters shall be magnetically driven through coupling of a magnet in the sealed register and a magnet within the main case which operates to transmit the revolutions of the turbine rotor to the sealed register.
    b. Turbine meters shall meet or exceed the most recent revision of the American Water Works Standard C-701-12 for Class II turbines.
    c. Operating Characteristics required are as follows:

METER SIZE	LOW FLOW	TYPICAL OPERATING RANGE	MAXIMUM CONTINUOUS FLOW	PRESSURE LOSS (NOT TO EXCEED)
3”	4 GPM	5 TO 550 GPM	450 GPM	1.8 @ 400 GPM
4”	6 GPM	10 to 1250 GPM	1000 GPM	7.3 @ 1000 GPM
6”	12 GPM	20 to 2500 GPM	2000 GPM	4.8 @ 2000 GPM
8”	20 GPM	30 to 4500 GPM	3500 GPM	2.5 @ 3500 GPM
10”	30 GPM	50 to 7000 GPM	5500 GPM	1.6 @ 5500 GPM
12”	65 GPM	90 to 8800 GPM	6200 GPM	0.8 @ 6200 GPM

d. Laying Lengths required are as follows:

METER SIZE	LAYING LENGTH
3”	12”
4”	14”
6”	18”
8”	20”
10”	26”
12”	19-11/16"

e. A strainer shall be included with all turbine meters to ensure optimal flow conditioning and protection of the measuring element. All fasteners shall be stainless steel.

f. The 3” through 12” size meter assemblies shall have flanges of the Class 125 round type, flat faced and shall conform to ANSI B16.1 for specified diameter, drilling and thickness.

g. Proposer shall provide pricing and detailed information on meter types, register, measuring element, external housing, pressure capabilities, operating characteristics, and laying lengths in tables provided in Attachments G.

3. COMPOUND METERS (2”, 3” 4”, 6”, and 8”)

a. Compound meters shall be designed for easy removal of all interior parts without disturbing any connections to the pipeline.

b. Jefferson Parish requires that any existing 2” turbine meter be replaced with a new 2” compound meter. This is reflected in the Pricing Table quantities.

c. Meters shall meet or exceed all requirements of AWWA Standard C701 for Class II turbine meter assemblies and exceeds AWWA C700 Residential Standard. Each meter assembly shall be performance tested to ensure compliance. The meter package shall meet or exceed all requirements of NSF/ANSI Standard 61, Annex F and G.

d. Operating Characteristics required are as follows:

METER SIZE	LOW FLOW	TYPICAL OPERATING RANGE	MAXIMUM CONTINUOUS FLOW	PRESSURE LOSS (NOT TO EXCEED)
2”	0.25 GPM	0.5 to 200 GPM	170 GPM	5.4 @ 170 GPM
3”	0.25 GPM	0.5 to 400 GPM	400 GPM	6.0 @ 400 GPM
4”	0.375 GPM	0.75 to 1000 GPM	800 GPM	11.0 @ 800 GPM
6”	0.375 GPM	0.75 to 2000 GPM	1500 GPM	9.3 @ 1500 GPM
8”	1.25 GPM	2.5 to 4500 GPM	3500 GPM	6.3 @ 3500 GPM

e. Laying Lengths required are as follows:

METER SIZE	LAYING LENGTH
2”	15-1/4”
3”	17”
4”	20”
6”	24”
8”	41-7/8”

f. A strainer shall be included with the meter to ensure optimal flow and protection of the measuring element. All fasteners shall be stainless steel.

g. Flanges for the 2” size meter assemblies shall be of the 2-bolt elliptical flange configuration. The 3” through 6” size meter assemblies shall have flanges of the Class 150 round type, flat faced. The 8” meter assemblies shall have flanges of the AWWA Class D (C-207) type. All shall conform to ANSI B16.1 for specified diameter, drilling and thickness. Indicate compliance or explain exception to the requirements.

h. Proposer shall provide pricing and detailed information on meter types, register, measuring element, external housing, pressure capabilities, operating characteristics, and laying lengths in tables provided in Attachments G.

J. 3” FIRE HYDRANT METERS WITH 2” GATE VALVE AND BACKFLOW PREVENTER

a. TYPE – The fire hydrant water meter is designed for mobile use in metering flows from fire hydrants. This meter assembly is intended where an extremely wide flow range is required. A backflow preventer is required as a part of the meter assembly to protect the potable water system by preventing backflow through the fire hydrant. The fire hydrant meter assembly shall include an adjustable support rod. The fire hydrant meter must also be able to

be read by the AMI system when moved from fire hydrant to fire hydrant.

b. STANDARDS – Meters shall meet or exceed all requirements of AWWA Standard C701 and exceeds AWWA C700 Residential Standard. Each meter assembly shall be performance tested to ensure compliance. The meter package shall meet or exceed all requirements of NSF/ANSI Standard 61, Annex F and G.

c. MAINCASES - The meter maincase shall be of cast aluminum composition for corrosion resistance. The maincase shall include 2” gate valve to allow for regulation of water flow.

d. PERFORMANCE - The meter assembly shall have performance capability of continuous operation up to the rated maximum flows as listed below without affecting long-term accuracy or causing any undue component wear. The meter assembly shall also provide a 25% flow capacity in excess of the maximum flows listed for intermittent flow demands. Maximum headloss through the meter / strainer assembly shall not exceed those listed in the following table per meter size.

e. OPERATING CHARACTERISTICS

METER SIZE	**OPERATING RANGE (98.5 - 101.5%)**	**MAX CONTINUOUS FLOWS**	**PRESSURE LOSS (Not to Exceed)**
3”	5 to 660 GPM	500 GPM	37 PSI @ 450 GPM

f. MEASURING CHAMBER - The measuring chamber shall consist of a measuring element, removable housing, and all-electronic register. The measuring chamber shall be capable of operating within the above listed accuracy limits without calibration when transferred from one maincase to another of the same size. The measuring shall be so configured to capture all flows as specified above, without the requirement of an automatic valve.

g. DIRECT MAGNETIC DRIVE SYSTEM - The direct magnetic drive shall occur between the motion of the measuring element blade position and the electronic register. Any and all additional intermediate, magnetic or mechanical, drive couplings are not acceptable.

h. REGISTER/ENCODER - The meter's register/encoder shall be an mechanical dial register and must have the ability to be AMI programmable by connecting an AMI radio.

i. MAXIMUM OPERATING PRESSURE - The meter assembly shall operate properly without leakage, damage, or malfunction up to a maximum working pressure of 150 pounds per square inch (psig).

j. STRAINERS - Each meter assembly shall have a separate UL (Underwriters Laboratories) Listed and FM (Factory Mutual) approved fire service strainer as a part of the meter package. Meter shall contain a double walled stainless steel screen strainer in the inlet end of the meter housing. The strainer shall be easy to remove for routine cleaning.

k. CERTIFICATIONS AND MARKINGS - All sizes of meter packages shall be UL (Underwriters Laboratories) Listed and FM (Factory Mutual) approved as being accepted for use on fire service lines and domestic water use. The meter shall have an identification tag affixed indicating such acceptance and the strainer shall also bear such acceptance symbols and markings on the casting.

l. HOSE COUPLINGS – The meter shall be available with standard 2-1/2" to 7-1/2" NST thread coupling and a 2" gate valve on the outlet end.

m. RADIO MOUNTING BRACKET – The fire hydrant meter shall have a mounting bracket to install and protect the AMI radio.

3.0 EXECUTION

3.01 INSTALLATION

A. INSTALLATION PROCEDURES

1. A pre-installation survey shall be conducted to determine the scope for the installation of the water meters. Pre-installation survey is intended to gather necessary data to allow meter and radio installation crews to perform a successful install on the first attempt.
    1) Suggested survey data collected includes but is not limited to the following:

i. Assessment of existing condition of meter box and lid to determine if replacement is necessary.
ii. Determination if the existing meter is an existing Badger meter (Models 25, 70, and 170) with existing ERT connector in working condition.
iii. Required fittings needed, if any.
iv. Determination of whether meter is buried or easily accessible.
v. Confirmation of material in which meter box is currently installed (asphalt, concrete, grass, gravel, etc).

2. Prior to any installation pre-installation photos shall be captured.
    1) Minimum photo parameters shall include the following:
        i. Undisturbed meter box and lid
        ii. Existing meter with box lid removed
        iii. Undisturbed meter box with structure it services
        iv. GPS coordinates for each photograph
        v. Date/Time stamp for each photograph

3. The following procedures regarding water meter and water meter box replacement shall be strictly adhered to:
    1) Tarps, buckets, and shovels must be utilized at each meter and water meter box replacement to contain any excavated materials. Any excess excavated material shall be removed from the site by the contractor and not placed back into the meter box.
    2) Hand or Mechanical Pumps must be provided by contractor to remove excess water from meter boxes/vaults to perform meter replacement.
    3) After installation, each meter must be tested by running at least one gallon of water through the meter to verify no meter leakage, that meter is functioning as designed, and that dial display is showing positive water usage. All information shall be documented.
    4) Upon confirmation of proper installation, new meter data including but not limited to the address, old meter serial number, final old meter reading and new meter serial number must be double checked and translated to the AS400 meter change out interface.
    5) Service line material classification on each side of the meter (utility side and customer side) must be documented at each meter replacement within the installation software. Dropdown list recommended subclassifications include lead-line galvanized, galvanized, non-lead copper, non-lead plastic, non-lead other, unknown- likely lead, unknown- unlikely lead, and unknown- material unknown. If service line material is not visible within the meter box, contractor is required to expose the pipe material outside of the meter box only if meter box is installed in dirt, grass, or gravel, for purposes of LDH survey.

4. Following installation, post-installation photos shall be captured.
    1) Minimum photo parameters shall include the following:
        i. Finished meter box and lid

ii. New meter with box lid removed
iii. Meter box with structure it services
iv. GPS coordinates for each photograph
v. Date/Time stamp for each photograph

Installation procedures regarding photographs and LDH survey still apply if only meter box and/or lid is being replaced, and if no replacement is necessary.

B. PROCEDURE FOR LOCATING BURIED METERS

1. The Parish has reported that some of the existing water meters may be buried. The contractor will be required to attempt to locate the existing buried meters. The contractor shall follow the below procedure for locating buried meters.
    1) Visually inspect the area for the existing water meter and meter box.
    2) Attempt to locate the water meter by using a metal detector and probing.
    3) After the contractor has made a considerable effort to locate the water meter and still cannot find the meter, document the meter address that could not be located.
    4) Submit the list of addresses to the Engineer at the end of each work week. The Engineer will contact Jefferson Parish Water Department weekly to discuss which meters the contractor could not locate.
    5) Jefferson Parish Water Department will locate and mark meters for replacement by the contractor before completion of the project. If the meter cannot be located, the Parish will locate and mark the water line where a new meter shall be installed.

C. PROCEDURE FOR INSPECTING GRAND ISLE METERS

1. The Parish has reported that some of the existing Grand Isle meters may be buried and/or not functioning as intended. The contractor shall be required to locate the existing buried meters and shall follow the below procedure for inspecting meters.
    1) Verify that the meter register is operating as intended by running at least one gallon of water through the meter and confirming that dial display is spinning and properly measuring the water usage.
    2) If meter body, piping, and/or register is damaged or not functioning as intended, document the damage with pre-installation photos described in paragraph 3.01A, report damage to the Engineer and replace the meter.

D. GENERAL INSTALLATION

The contractor shall install all of the hardware necessary for the water meter to function properly as designed, without any leaks or workmanship defects. Contractors shall utilize manufacturer provided gaskets and compression fittings, no exceptions.

Operating and maintenance manuals shall be provided to the Owner for all equipment including supplied hardware.

The contractor shall establish an overall schedule for installation with the Engineer for each phase of the project. Each week, the contractor shall provide Engineer a schedule of where work is planned each day of that week. The purpose of this information is to provide coordination and communication between the Owner, Engineer, and Contractor for the Work. If the schedule changes for whatever reason, an updated daily schedule shall be forwarded to the Owner, Engineer, and Contractor.

The contractor shall be responsible for replacing any meter, or appurtenance improperly set and to correct any damage to couplings, threads, unions or meters by use of improper tools or cross threading by the contractor installer.

All water meters must be water tested to ensure proper installation, free of any leaks or malfunctions, PRIOR to any backfill or pouring of sidewalk or concrete pad.

Any water service lines, meter couplings, angle meter valves, service fittings, irrigation lines, sprinkler heads, meter boxes or lids damaged during excavation or installation shall be repaired and water tested, PRIOR to any backfill or pouring of sidewalk or concrete pad.

All existing plants, shrubs, and/or trees which are damaged during installation shall be replaced with the same type or approved variety at no direct pay.

The contractor shall be responsible for correcting any leaks at the valves, couplings or service lines that could reasonably be attributed to the meter installation if reported by the Owner within sixty (60) days of installation.

END OF SECTION

SECTION 11950

ADVANCED METERING INFRASTRUCTURE (AMI)

1.0 GENERAL

1.01 SCOPE OF WORK

A. To provide and install a Advanced Metering Infrastructure (AMI) system for Jefferson Parish. This project will cover a system-wide radio frequency fixed network implementation. Jefferson Parish wishes to procure a system that provides the best long-term value over the system lifetime, while providing at least hourly meter readings (24 readings per day) for 20 years.

B. The proposer shall provide and install all of the hardware and software that comprise the proposed AMI system. This includes radios, wire and wire connectors, data collection units, handheld programmers, meter data management system (MDMS), customer portal, and related software and interfaces.

C. The System must have the capability to improve meter reading efficiency, increase meter reader safety, and provide data that facilitates resolution of customer bill complaints, water conservation initiatives, and distribution system management efforts. The system will also require the AMI network to run on a FCC licensed radio frequency (RF) fixed network. The Cellular, LoRa Wan, and Unlicensed Fixed networks will not be accepted.

D. FCC licensed frequencies between 900-950 MHz will be allowed for the system. The FCC licensed frequency must be in place in Jefferson Parish geographic area prior to submitting proposals. Proof of the license for a fixed network will be required to be submitted by the proposer. The proposer shall be responsible for all frequency coordination. Licenses registered with the FCC shall reference Jefferson Parish Government.

E. AMI manufacturer information that is proposed to be used on the project will be required to be submitted by the proposer in the proposal and must be compatible with the proposed water meters.

F. The System shall be capable of operating simultaneously in a walk-by (handheld), mobile (drive-by), full fixed network (permanently mounted data collectors), or any combination of these data collection methods without the need for reprogramming RF radios.

G. The System shall provide priority alarm notification of alarms list in paragraph Section 2.01.C.5.H with user configurable email or text messages for notification to utility personnel.

H. The System shall provide the capability for a demand read initiated from the host software application. The number of demand read requests made over the lifetime of the radio shall not impact the battery life or warranty.

I. The System shall provide redundancy of coverage in data collector coverage (for fixed network) and in the way the meter data is transmitted. The system must have the ability to back-fill water meter data that was not transmitted during previous data transmissions. The radio must be able to store a minimum of 35 days of hourly readings.

J. Fixed network infrastructure/data collectors shall be installed only at the locations of the identified water towers and storage tanks in Jefferson Parish. No repeaters will be allowed. Existing water tower and storage tank information can be found on page 11950-10 of this spec section.

K. The AMI manufacturer shall have at least 10 years of experience in the AMI industry. The AMI manufacturers company shall have at least three (3) references/projects 75,000 AMI radios or more with the proposed system.

1.02 SUBMITTALS

A. Submit to the Engineer, in accordance with Section 01340, copies of all materials required to establish compliance with this Section. Submittals shall include at least the following:

1. Certified drawings showing all important details of construction and dimensions of equipment (including AMI infrastructure).
2. Descriptive literature, bulletins, and/or catalogs of the equipment (including AMI infrastructure).
3. All information required by Section 01340.
4. All warranty information.

B. The propagation study shall be submitted with the proposal.

C. Operation and Maintenance Data

1. Operating and maintenance data shall be furnished to the Engineer as provided in Section 01730. The instructions shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions, etc., that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.03 WARRANTY

A. If, within the guarantee period, any defect or signs of deterioration are noted, which, in the opinion of the buyer, are due to faulty design and installation, workmanship, or materials, upon notification, the Proposer, at their expense, shall repair or adjust the equipment or parts to correct the condition, or they shall replace the part or entire unit to the complete satisfaction of the Owner. These repairs, replacements or adjustments shall be made only at such time as will be designated by the Owner as least detrimental to the operation of the business.

B. The radio, including batteries, shall be warranted to be free from defects and workmanship at no cost for the first 15 years from the date of shipment and for the remaining 5 years at a prorated percentage.

C. The data collectors shall be warranted to be free from defects and workmanship for at least a period of 1 year from date of shipment.

D. The handheld reading devices shall be warranted to be free from defects and workmanship for at least a period of 2 years from date of shipment. Twenty (20) handhelds shall be supplied by the Proposer.

E. The Proposer shall conduct a propagation study and install the required fixed network infrastructure to guarantee all meters can be read via the network. The propagation study shall be submitted with the proposal. If after the initial installation all meters are not reading, additional infrastructure shall be installed by the Proposer at no cost to the Owner.

2.0 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. METER RADIOS

1. GENERAL

a. Radios shall collect meter usage from an encoder meter register and shall transmit the meter reading and a unique ID number to the data collection device.

b. Radios shall be compatible with a Nicor meter connection. Approximately 20,500 existing 2” and smaller Badger water meters (Models 25, 70, and 170) with existing ERT connector will not be replaced. For these meters, radios provided shall be provided with an ERT connection. No splicing of connection cables of any type will be permitted.

c. The radios must be compact electronic devices that connect to the water meters. They shall interrogate the encoder register and transmit the meter reading and other information to a remote reading device.

d. The Parish requires that the proposed meter, radio transmitter, and installed antenna fit within existing meter boxes. If the proposed meter, radio, and its necessary components do not fit within existing meter boxes, additional required meter box and lid replacements must be included in the pricing table.

e. The same radios must be capable of being read by a walk-by handheld device equipped with a receiver, a mobile system with a receiver mounted in a vehicle, and a fixed network on a licensed radio frequency network data collection system. This shall allow an easy migration between the three meter reading systems without any change to the radio devices or revisiting the site.

f. The radio shall log hourly consumption data, available for retrieval from the data collection device.

g. The radios shall be manufactured in the pit models. The pit radio shall have the ability to be mounted in a pit or an underground vault. The radio shall have through-the-pit-lid antenna that shall be installed through the meter box lid to optimize performance in

fixed licensed radio frequency network. The radio shall have a fully-potted, submersible design.

h. The installed radio and through the lid antenna must fit in the existing meter boxes or the proposer shall include additional quantities of meter box replacements in the pricing table if the installed meter, radio and through the lids antenna will not fit in the existing boxes.

2. PIT OR VAULT APPLICATIONS

a. The radio shall be sealed to allow for submersion in a flooded pit environment.

b. The radio shall be designed with a through-the-pit-lid antenna and installed through the meter lid.

c. The device shall provide a location for a tamper-deterrent seal. Tampering with the device functions or connections shall not be possible without causing visible damage to the device exterior or to the seal.

d. The device shall be capable of operating at temperatures of -22°F to +149°F and operating humidity factor of 0 to 100% condensing.

e. The radio circuit board and battery shall be protected by a hard potting material.

f. The through-the-pit-lid antenna shall be rigid in design to withstand traffic.

g. The radio device must be protected against static discharge without loss of data per IEC 801-2, issue 2.

3. OPERATION SPECIFICATIONS

a. The radio shall provide at least an 8-digit reading resolution from encoded registers in mobile as well as fixed network data collection applications, simultaneously, without need for programming.

b. Power shall be supplied to the radio by battery. The vendor shall warrant that the radio and battery shall be free of manufacture and design defects for a period of at least twenty (20) years – the first fifteen (15) years from the date of shipment from factory without prorating and the second five (5) years with prorating, as long as the radio is working under the environmental and meter reading conditions specified.

c. The number of meter reads performed must not affect the battery life.

d. The battery life shall not be affected by outside erroneous wake-up tones (e.g., other water, gas, or electric utilities reading and therefore sending out a wake-up tone).

e. The battery shall be a fully potted component of the radio with no external wires.

f. For reliability and meter reading integrity, the vendor shall be the sole manufacturer of the different components of the System (radios, data collectors, meter reading equipment, and meter reading software) and provide a turnkey system offering to the utility.

g. Each device shall have unique preprogrammed identification numbers. ID numbers will be permanent and shall not be altered. Each device shall be labeled with the ID number in numeric and barcode form. The label shall also display manufacturer's designation, and date of manufacture.

h. The radio shall transmit the encoder meter reading and a unique radio ID number.

i. The radio must be capable of hourly reading the meter (at least 24 readings per day). Radios shall transmit prior reading intervals in each transmission for redundancy. The radio must be able to store a minimum of 35 days of hourly data.

j. The utility must be able to communicate directly to the radio to obtain current information.

k. Radios shall have leak detection alarm. Leak detection must be configurable with a leak flow threshold parameter and a leak flow intervals parameters (number of continuous intervals required to trigger a leak alert). The leak detection alert must be programmable through the software without having to go in the field and program each meter radio.

l. Radios shall have a user-configurable reverse flow alarm. Reverse flow detection must be configurable with a Reverse flow threshold parameter and a reverse flow intervals parameters (number of continuous intervals required to trigger a reverse flow alert).

m. Radios shall have a user-configurable broken pipe alarm to indicate the radio has detected an excessive flow rate.

n. Radios shall have an alarm indicating the radio failed to successfully read the register.

o. Radios shall have an alarm that indicates the battery is near the end of life (minimum of 1 year, 6 months and 3 months prior to battery failure).

p. Radios and/or the installation programing software shall store and transmit their GPS Coordinates for system diagnostic purposes.

q. The radio shall be mounted per the manufacturer's installation instructions.

r. The radio must utilize a configurable architecture that allows new technologies to be implemented.

s. The handheld reading equipment shall provide a test mode to verify proper operation of the radio by displaying the radio ID number and meter reading.

t. The radio shall be capable of being received by either a handheld receiver, mobile receiver, or fixed network receiver without special configuration, programming of operation modes, or remanufacture.

B. DATA COLLECTION DEVICES

1. GENERAL- The AMI System shall provide a means of communication between the radio installed at the meter site and the host software. In a walk-by system, it must be a handheld device capable of reading meters using keyed-entry and RF communications with an attached receiver device without the need to switch modes within the handheld. In the case of a mobile application, the data collection device must be a portable personal computer integrated to an RF receiver or a tablet that can be installed in any vehicle. For the fixed licensed radio frequency network applications, the data collection device must be an environmentally sealed control box able to adapt to various installation settings and must have the capability to receive, store, and communicate meter readings to the host software for further use and analysis.

2. WALK-BY APPLICATION

a. The AMI System must give user the ability to collect metering data in several ways:

i. Keyed entry.
ii. RF communication: The handheld must connect via Bluetooth to an RF receiving device.

b. HANDHELD COLLECTOR DEVICE - The handheld data collection device shall have the capability to collect and store meter readings at any time of the meter reading route by any of the following methods: Manual use through an alphanumeric keypad, probing of water meters equipped with supported absolute encoders, and via radio frequency through a Bluetooth-paired receiver.
i. The battery capacity must be sufficient for a minimum of ten (10) hours of meter reading.
ii. The handheld must utilize a rechargeable battery.
iii. The handheld data collection device must include a minimum of 512 MB of DDR SDRAM.

iv. The unit must operate in a temperature range of -30°C to +60°C (-22° F to +140° F).

v. The device shall be water-resistant, capable of unlimited exposure to spray or splash (such as rain or snow).

vi. The device must be protected against an 8kV static discharge without loss of data.

vii. The unit must be resistant to various chemical products and must be sealed to keep out dust, humidity, and water.

viii. The device must be able to upload data to the meter data management software. Proposer must indicate in the proposal how devices upload the data and bandwidth requirements.

ix. The unit must be CE and FCC certified.

3. FIXED NETWORK FUNTIONALITY

a. The fixed network must be able to operate in parallel with other meter reading technologies such as walk-by, handheld, and mobile systems and utilize a common interface to the CIS/billing software system. The fixed network must also support the migration of technologies (example: handheld to mobile or mobile to fixed network).

b. The fixed network must be capable of automatically retrieving consumption information from the same RADIOs being read by walk-by and mobile data collection devices to manage customer account and meter reading information, to provide usage analysis information, and to provide a flexible host interface to utility's CIS system.

c. The host software must be capable of storing meter readings with the capability to store a minimum of 24 readings per day per meter. The host software must also provide meter reading management reports, usage analysis reports (flow profiling, leak detection, tamper detection, and reverse flow conditions), off-cycle reads, and system management diagnostics. Must provide comprehensive coverage for all selected strategic commercial and industrial customers, including indoor, outside, and in pits/vaults, utilizing a single or hybrid technology solution. The network architecture

should provide scalability and adequate bandwidth to provide hourly reading requirements.

d. The fixed network functionality must utilize a FCC licensed radio frequency band for LAN communications.

e. The fixed network must provide redundant communication paths to ensure optimal coverage and reliability. Proposer shall provide an explanation of redundant communications in detail.

f. Network management tools must be available to properly monitor the performance of the system to ensure reliable data delivery to utility for all billing and/or other customer service applications. Details on network management tools to be used are required to be provided in the proposal. Proposer shall list in the proposal minimal bandwidth and network requirements the Parish must meet.

g. The fixed network data collection units with AC power must have an uninterruptible power supply (UPS) capable of powering the data collector for eight (8) hours in the event of a power outage.

h. The fixed network data collection units must provide USB flash drive data retrieval in the event of a backhaul outage. All data stored to the USB flash drive must be encrypted via AES128.

i. The fixed network collector shall utilize an SD card for flash memory storage.

j. The data collection units shall consist of the following:
    i. NEMA 4 enclosure
    ii. LAN: Receiver shall support communication protocol from RADIOs and comply with FCC part 15.247

k. The data collection unit must meet the following environmental operating requirements:
    i. Temperature range: -20° F to +122° F (-30° C to +60° C)
    ii. Humidity: 0 to 95% non-condensing inside enclosure

l. The data collection units shall be installed only at the existing storage tank sites based on the results from propagation study completed by the Proposer. The Parish will allow a maximum of 11 data collectors.

m. The preferred term to install the AMI data collector infrastructure and software integration is six (6) months. This infrastructure shall be in place prior to the start of the water meter installations. The Parish would like the data collectors that will cover Grand Isle, Lafitte and Kenner to be installed first.

n. All storage tank sites have a 200 amp 120/240 VAC service. The Proposer shall supply its own breaker. If a different type of power service is required, it must be included in the price for data collector.

o. The Proposer shall supply a modem for cellular data backhaul operations.

p. The following are the locations of the storage tanks located throughout Jefferson Parish.

Location/ Description	Latitude	Longitude	Height (ft)
East Bank Storage Tanks			
Shrewsbury & I-10	29°59'49.0"N	90°09'29.4" W	144
David Dr. & Veterans Blvd.	30°00'17.6"N	90°13'16.0" W	144
3600 Jefferson Hwy.	29°57'42.9"N	90°09'52.4" W	130
West Bank Storage Tanks			
Westwego Ave. & 3rd St.	29°55'59.1"N	90°09'56.7" W	140
Marrero Rd. & 4th St.	29°54'01.0"N	90°06'35.8" W	147
Fairmont St. & Oak St.	29°54'32.0"N	90°04'24.2" W	150
Patriot St. & Allo Ave.	29°52'58.7"N	90°05'22.8" W	130
Hwy. 45 & Madere Pl.	29°42'57.7"N	90°06'45.0" W	135
Cheniere (Grand Isle)	29°11'54.5"N	90°04'12.7" W	143
East Grand Isle	29°14'38.8"N	89°58'53.7" W	40
Terry Parkway & Industry Canal	29°53'29.4"N	90°01'49.8"W	40

C. METER DATA MANAGEMENT SOFTWARE

1. The AMI software shall be designed to support key departments within the utility organization (Customer Service, Billing, Operations) by providing data in user-friendly functional specific screens as well as reports to help

utility personnel manage their day-to-day operations. The AMI software shall provide users with an intuitive dashboard with key performance indicators for easy system monitoring and control, monthly, daily, and hourly customer usage graphs, enhanced reporting, priority alarms, and mapping functionality.

2. CORE CAPABILITIES - The AMI software shall have the basic capability of supplying the following features to the end user:

    a. The AMI software shall comply with prevailing industry standard hardware, operating systems, databases, and user interfaces.
    b. The AMI software must exist as a browser-based (Internet Explorer 11 or later, Chrome, or Firefox) application that operates on a hosted server.
    c. The AMI software shall interface with the utility's CIS (AS400 and PAYSTAR) for meter reading data and customer information.
    d. The AMI software shall interface with third-party applications such as work order systems via a standard interface such as web services.
    e. The AMI software shall provide automated alert configuration capability to send information directly to key utility personnel (via email or SMS) based on pre-defined triggers and thresholds.
    f. The AMI software must be designed to hold two years of history for direct access, with an option for secondary direct access storage and reporting of older consumption history.
    g. The AMI software shall provide an export of key data for third-party meter data management or customer web presentment.
    h. The AMI software shall provide specialized customer service screens for support of utility customers by customer service representatives.
    i. The AMI software shall include a GIS mapping module for visual analysis of AMI data throughout a utility's service area. The mapping module must be compatible with the latest ESRI ArcGIS solutions.
    j. The AMI software shall have the basic capability of providing monthly, daily, and hourly consumption and event information in a tabular and graphical format to assist with customer billing disputes and improved customer service.
    k. The AMI software shall be able to generate route and activity reports defined by the user.

l. The AMI software shall provide integrated database backup/restore functions.
m. The AMI software shall enable the user to set up and save custom report formats.

3. IMPORT/EXPORT CAPABILITIES

a. The AMI software shall support the import of data from a Walk-By/Drive-By system to assist in a roll out program.
b. The AMI software must be able to export data to Microsoft Excel, Microsoft Word, PDF, Common Separated Value (CSV), and Text files.
c. The AMI software must interface to the utility's CIS/billing software. The AMI software must have a setup application to map simple interfaces from a CIS/Billing System.
    i. The AMI software must be compatible with Munis Version 11.3.
d. The AMI software must import and support GPS type data to identify and display locations of accounts geographically.
e. AMI software must provide a billing export.
f. AMI software must have a billing export setup application.
g. AMI software must have a customer information data import setup application.
h. AMI software must have a billing import file setup application (billing request file method).
i. The billing gateway should allow entry of valid start and stop times for billing purposes.
j. The AMI software shall have export capabilities of greater than 5K rows.
k. The proposer shall provide all interfaces required to communicate with the Parish billing and work order software as well as the installation software.

4. METER DATA

a. The Proposer shall provide a data dictionary for any data conversions and the preferred data/table format.
b. The AMI software shall provide the ability to process hourly time-stamped meter reading taken from all meters and verify the percentage of reads received for particular areas and/or selected

meter routes. This data must then be exposed to various configurable parameters set (when provided), such as high/low parameters to assure the accuracy of the data.

c. The AMI software must be able to search for records matching specified information.
d. The AMI software must provide the following data to the utility on a daily basis for monthly billing applications:
    i. Hourly time-stamped meter reading taken from all AMI meters for monthly billing purposes.
    ii. Hourly usage/consumption readings for resolution of customer billing disputes and improved customer service.
    iii. Alarm data received from AMI devices for identification of customer site problems.
e. The AMI software must be able to support demand read capability to the meter.
f. The AMI software must provide the capability to store all meter data information for a minimum of two (2) years.
g. The AMI software shall have the following GIS, CIS, and SCADA business interface services:
    i. Customer Information System (CIS) integration
    ii. CIS daily synchronization
    iii. CIS daily synchronization file mapping integration without coding
    iv. CIS billing export
    v. CIS billing export file mapping without coding
    vi. CIS on demand reads
    vii. Supervisory Control and Data Acquisition (SCADA) integration via professional services

5. DATA REPORTING

a. The AMI software must provide a powerful custom report generator, allowing the user to select and order specific fields from the database to be printed; in addition, it should allow the entire database to be sorted by criteria such as date, meter ID, radio ID, address, or other specified fields.
b. The AMI software must have the ability to identify three types of reading information to include; numeric reads (successful reads that can be used for billing), non-numeric reads (reads that cannot be used for billing but may indicate a problem with the meter

register or RADIO or tamper condition), and no readings (no transmitted reading was received).

c. The AMI software must allow the user to review total number and percentage of successful reads, unsuccessful reads, and no reads.
d. The AMI software must have the ability to alert appropriate personnel of certain triggered alarms.
e. AMI software must have email notification of alerts.
f. AMI software must have text message notification of alerts.
g. The AMI software must provide a geo-spatial/map view that includes:
    i. Display of meters
    ii. View assets with events on map.
h. The AMI software must provide the following but not limited to the following alarm/alerts:
    i. Power Failure
    ii. Power Restore
    iii. Tamper Report
    iv. Meter Read Failure
    v. Calibration Error
    vi. Low Battery
    vii. Cut Wire
    viii. Leak Detected
    ix. Meter Communication Failed
    x. Dead Battery

i. The AMI software must provide the following reports:

<u>Premise Level Reports</u>

    i. Account List – lists all premises that have account records within the database.
    ii. Account Reads – lists all readings received for a selected radio.
    iii. Billing List – lists the latest readings for radios in the System that will be sent if a billing file is created. (has a premise record)
    iv. Last Read – lists the last read received for all radios within the System. (premise and not premise reads)
    v. Soft Disconnect – lists all radios that have been flagged within the System for soft disconnect.

vi. Soft Disconnect w/Usage – list all radios that have been flagged for soft disconnect in which usage has been reported.

Radio Level Reports

vii. All Readings – lists all radios that have received readings within the System for a selected date range.
viii. Found Meters – lists all radios that have not been associated with a premise within the System.
ix. Hourly Reads – lists the hourly readings for a selected radio for a specified reading date.
x. Missed Reads – lists all radios that have not received a reading for a specified read date.
xi. Radio Reads – lists all readings for selected Radio within a specified timeframe.
xii. Non Billable – lists all radios with non-numeric characters within the reading.
xiii. Not Active – lists all accounts within the System that are flagged as inactive.

Event Level Reports

xiv. Leak – lists all leak events that have occurred within the System (continuous and intermittent).
xv. No Flow – lists all radios that have reported zero consumption within a selected time frame.
xvi. Reverse Flow – lists all reverse flow events that have occurred within the System (major and minor).
xvii. Tamper – lists all accounts for which specific tamper events have been configured within a specified time frame (reverse flow, no flow, disconnect with flow, and cut wire).
xviii. All Alarms – lists all alarms that have occurred for a specified time frame

System Level Reports

xix. District Metering Daily – daily consumption comparison of billed versus pumped water.
xx. District Metering Hourly – hourly consumption comparison of billed versus pumped water
xxi. Consumption – total consumption for accounts within a specified group.

xxii. Troubleshooting – lists all radios that have never received a reading, non-billable, and past due.

System Status Reports

xxiii. Audit – lists user modification to the System where data updates have been made for a selected radio for a specific date range.

xxiv. Priority Alert Log – lists all accounts that have reported a priority alarm alert within a specified date range.

xxv. Status Log – displays the overall status (in percentage) of all radios with the System.

6. SECURITY

a. The System shall contain multi-level security login access for utility users.
b. The System shall require each user to have a user ID and password in order to access the application.
c. The System shall provide a method for a user to retrieve his/her password in the event the password is not available.
d. Encrypting data must be applied *where feasible*. Encryption in transit shall be TLS 1.2 or higher.
e. MFA must be supported natively on both the customer and employee sides.
f. The system must have the ability to change the native password complexity requirements for consumers and employees to desired standards.
g. Employee side must have the ability to restrict logins by IP Address/Geo-Blocking.
h. System shall support SSO SAML, and Duo SSO specifically.
i. Data stored in Data Management Software must be encrypted at rest with AES 128/256 bit.
j. Monitoring capabilities for suspicious logins on employee side are required.
k. Cloud-based system shall be ISO 27001 and/or SOC2 certified.

7. SYSTEM REQUIREMENTS/HOSTING

a. The AMI software must provide all the control needed in the network and provide for the essential functions of network

management, meter communications, reporting, database configuration, and alarms monitoring. It shall comply with prevailing industry standards and should run on a Windows compatible PC.

b. The software must be hosted/web-based and must have the capability to access from any computer, tablet or smart phone.
c. The Vendor shall provide upgrades of the AMI software to Latest Releases, Including all security patches and updates.
d. The Vendor shall maintain a web portal access to the AMI software.
e. The solution shall be a hosted or SaaS solution. Jefferson Parish will not host the solution.

D. CUSTOMER WEB PORTAL

1. The Customer Portal software shall have an Android or iOS application or be compatible with a Third Party Andriod/iOS application which meets the following requirements.
2. The software shall be accessible to customers using PC web browsers (Microsoft Edge) or mobile web browsers from major manufacturers.
3. The software shall allow the customer to initialize an account using address, account number and amount of the last payment received. Initializing a customer account shall require no involvement of utility staff; everything should be done through e-mail.
4. The software shall allow the customer to set up a username and a password of a specific length.
5. The software shall allow the customer to retrieve or re-set their forgotten password via the previously established email.
6. The software must provide at a minimum hourly time-synchronized data to both utility users and utility customers.
7. The software shall provide a method for utility's customers to view their own consumption information through a customer web portal.
8. The software must provide the ability for utility's customers to view and manage multiple meters and/or multiple accounts.
9. The software must provide a method for utility's customers to set water budgets and a method to alert them in the event they exceed their budget.
10. The utility's customers shall be able to configure their System to receive alerts by email and/or text message.
11. The software shall enable users to display consumption information in both graphical and tabular formats.

12. The software shall allow utility's customers to set multi-level communications for leak, reverse flow, and consumption alerts.
13. The software shall provide a method to export data in Adobe PDF and MS Excel formats.

3.0 EXECUTION

3.01 INSTALLATION

A. INSTALLATION PROCEDURES

1. Prior to any installation pre-installation photos shall be captured.
    1) Minimum photo parameters shall include the following:
        i. Undisturbed meter box and lid
        ii. Existing meter with box lid removed
        iii. Undisturbed meter box with structure it services
        iv. GPS coordinates for each photograph
        v. Date/Time stamp for each photograph

2. Following installation, post-installation photos shall be captured.
    1) Minimum photo parameters shall include the following:
        i. Finished meter box and lid with through the lid antenna
        ii. Lid upside down showing radio lying adjacent to new meter
        iii. Meter box with structure it services
        iv. GPS coordinates for each photograph
        v. Date/Time stamp for each photograph

A. GENERAL INSTALLATION

The Proposer shall install all of the hardware and software that together comprise the proposed AMI system. This includes radios, antennas, wire and wire connectors, data collection units, handheld programmers, meter data management system (MDMS), customer web portal, and related software and interfaces.

Operating and maintenance manuals shall be provided to the Owner for all equipment including supplied hardware and software.

The meter data management software and data collection units shall be installed prior to the radios. Therefore, as soon as the radios are installed and programed, they will be ready to communicate with the AMI network. The preferred term to install the AMI data collector infrastructure and software integration is six (6) months. The Parish would like the data collectors that will cover Grand Isle, Lafitte and Kenner to be installed first.

The Proposer shall establish an overall schedule for installation with the Owner for each phase of the project. Each week, the Proposer shall provide Owner a schedule of where work is planned each day of that week. The purpose of this information is to provide coordination and communication between the Owner and Proposer for the work. If the schedule changes for whatever reason, an updated daily schedule shall be forwarded to the Owner.

The Proposer shall be responsible for replacing any radio or appurtenances improperly set and to correct any damage use of improper tools by the installer.

All existing landscaping, ground cover, grass, plants, shrubs, and/or trees which are damaged during construction shall be replaced with the same type or approved variety within 48 hours at no direct pay.

3.02 TRAINING

A. The vendor/Proposer shall be responsible for fully hands-on training for the utility personnel on the AMI system including but not limited to the installation and programing of radios, data collector training, and software/MDMS training.

B. An approved, detailed training plan must be developed by the Proposer with approval by the utility based on results of pre-implementation meetings. The following are items to be determined during these meetings:
   1. Identify the training personnel and the employees to be trained.
   2. Identify training schedules for hardware, software, and total system products.
   3. Define acceptance criteria for system deployment.

3.03 SUPPORT AND MAINTENANCE SERVICES

A. The vendor shall provide support and maintenance services for infrastructure and software for a period of 20 years and have the ability for the owner to extend services after the 20 years.

B. The vendor shall have a customer support department. The customer support department is required to maintain a toll-free telephone help desk and must have the capability of continuing the support through the use of a service agreement. A list of required services to be provided by the help desk includes but is not limited to the following:

1. Answer and resolve hardware/operation/maintenance questions and problems.
2. Answer and resolve software operation questions and problems.
3. Evaluate information for updates or revisions.
4. Evaluate personnel for training needs.
5. Perform additional on-site training or evaluation as needed.

END OF SECTION

SECTION 15100

VALVES AND APPURTENANCES

1.0 GENERAL

1.01 SCOPE

A. Furnish all labor, materials, equipment, and incidentals required, and install complete and ready for operation of all valves and appurtenances as specified herein.

B. All existing water meters should have a working curb stop or gate valve installed on the piping on the Parish side of the meter. In the event that there is no valve, or the valve is not in working condition, curb stop or gate valve shall be installed by the contractor with approval from the Engineer or Engineer's representative.

C. The existing valves are installed within the meter boxes. The new valve, if required, shall be installed within the existing meter box. A valve box will not be required.

D. The equipment shall include, but not be limited to, the following:

1. Curb Stops
2. Gate Valves
3. Meter Couplings

1.02 RELATED WORK

A. Piping is included in Divisions 2.

1.03 SUBMITTALS

A. Submit to the Engineer, in accordance with Section 01340, copies of all materials required to establish compliance with this Section. Submittals shall include at least the following:

1. Certified drawings showing all important details of construction and dimensions.

2. Descriptive literature, bulletins, and/or catalogs of the equipment.

3. All information required by Section 01340.

4. The total weight of each item.

5. A complete total bill of materials.

6. A list of the manufacturer's recommended spare parts.

B. Operation and Maintenance Data

1. Operating and maintenance instructions shall be furnished to the Engineer as provided in Section 01730. The instructions shall be prepared specifically for

this installation and shall include all required cuts, drawings, equipment lists, descriptions, etc, that are required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.04 QUALITY ASSURANCE

A. All of the types of valves and appurtenances shall be products of well-established firms who are fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with this Section as applicable.

1.05 SYSTEM DESCRIPTION

A. All of the equipment and materials specified herein is intended to be standard for use in controlling the flow of potable water.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

2.02 VALVES

A. Curb Stop

1. Curb stops shall be manufactured in compliance with ANSI/AWWA C800. Brass components shall conform to ASTM B584 standards. Valves shall be certified to NSF/ANSI 61 and NSF/ANSI 372. Brass ball shall be PTFE coated and rated for 300 PSIG water pressure with end connections not to exceed rated pipe pressures. EPDM port seals shall be blow out proof and end piece joints shall be sealed with an EPDM O-ring and thread locker. Copper to copper curb stops shall be pack joint inlet, pack joint outlet, McDonald #76100W-22-NL, or approved equal. Meter ball valve curb stop shall be pack joint inlet, meter nut outlet, and McDonald #76100MW-22-NL, or approved equal.

2. Curb stops are located in the meter box tied directly to the front of the meter.

B. Resilient Seat Gate Valves

1. Gate valves conform to AWWA C515. Gate valves shall be flange, mechanical joint, or flange, mechanical joint and shall be rated for 250 PSI for AWWA service, hydrostatically tested to 500 PSI. The operating nuts shall be 2-in square. All valves shall open left, or counterclockwise. Valves shall be supplied with O-ring seals at all pressure restraining joints. Stuffing boxes shall be the O-Ring type. Valves shall be epoxy coated with clow corrosion resistant fusion-bonded coating, conforming to AWWA C550 and NSF 61

Certified and be equipped with 304 stainless steel nuts and bolts. Gate valves shall be M&H #7572, or approved equal.

2. The resilient gate valve item shall cover flange x flange, MJ x flange or MJ x MJ and the determination of which one is needed shall be made in the field.

C. Meter Coupling

1. Meter Couplings shall be manufactured in compliance with ANSI/AWWA C800. Brass components shall conform to ASTM B584 standards. Couplings shall be certified to NSF/ANSI 61 and NSF/ANSI 372. Meter Couplings shall be female meter couplings, male iron pipe thread. Meter couplings shall be Ford #38-23-2-5-NL, or approved equal.

D. Spinner/Connector (Yoke Box Expansion Connection)

1. Connector shall be made of heavy brass alloy 89833 per ASTM B62-09 and ASTM B584-05 and shall meet or exceed AWWA C800-05 specifications with a 250 psi working pressure. Connecter yoke box expansion shall be standard/hand wheel and to have an inlet of female meter threads with an outlet of male yoke connection for a ⅝"x ¾" meter.

2. It is the intent of the project to reuse the existing Yoke Box expansion connector (spinner) when a meter is being replaced in a Yoke Box. However, if the existing Yoke Box Expansion Connector is broken, it shall be replaced.

PART 3 EXECUTION

3.01 INSTALLATION

A. All valves and appurtenances shall be installed, true to alignment and rigidly supported.

B. After installation, all valves and appurtenances shall be tested by running at least one (1) gallon of water at the working pressure. If any valves and appurtenances proves to be defective, it shall be repaired to the satisfaction of the Engineer.

C. All materials shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of valve openings, etc; all operating mechanisms operated to check their proper functioning and all nuts and bolts checked for tightness. Valves and other equipment which do not operate easily, or are otherwise defective, shall be repaired or replaced at no additional cost to the Owner.

D. Buried flanged or mechanical joints shall be made with cadmium plated bolts. All exposed bolts and nuts shall be cadmium plated. All exposed bolts and nuts shall be heavily coated with two coats of bituminous paint comparable to Inertol No. 66 Special Heavy.

3.02 INSPECTION AND TESTING

A. The various pipe lines in which the valves and appurtenances are to be installed are specified to be field tested. During these tests any defective valve or appurtenance shall be adjusted, removed and replaced, or otherwise made acceptable to the Engineer.

B. Various regulating valves, strainer, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities and any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the Engineer.

- END OF SECTION -

ATTACHMENT "F" - Jefferson Parish Water Meter + AMI RFP Pricing Table

Proposer Name: _____

Notes: *[1] Proposer shall complete Item 4a in addition to the other items for additional meter box and lid replacements IF the proposed meters, radios and through the lid antennas do not fit in the existing boxes. Proposer shall enter the quantity/# of units of the additional meter boxes and lids that will need to replaced.*

[2] Data Collector and Data Collector Installation will be premitted only at the sites indicated in Section 7) Network Devices. If Proposer will not install a data collector at every site, Proposer shall enter a unit cost of $0.00 for each data collector and each data collector installation line item not used.

1) Meter Materials Only

	Meters	Vendor	Model	Unit of Measure	# of Units	Unit Cost	Total Cost
a	5/8 x 3/4" Positive Displacement Water Meter			Each	120,910		
b	1" Positive Displacement Water Meter			Each	14,208		
c	2" Positive Displacement Water Meter			Each	782		
d	3" Turbine Water Meter			Each	143		
e	4" Turbine Water Meter			Each	257		
f	6" Turbine Water Meter			Each	66		
g	8" Turbine Water Meter			Each	25		
h	10" Turbine Water Meter			Each	21		
i	12" Turbine Water Meter			Each	2		
j	2" Compound Water Meter			Each	3,553		
k	3" Compound Water Meter			Each	35		
l	4" Compound Water Meter			Each	64		
m	6" Compound Water Meter			Each	16		
n	8" Compound Water Meter			Each	6		
o	3" Fire Hydrant Meter with 2" Gate Valve and Backflow Preventer			Each	20		
p	2" Turbine to 2" Compound Meter Conversion Additional Materials			Each	500		
	Subtotal						

2) Meter Installation Labor Only

	Meter Installation	Unit of Measure	# of Units	Unit Cost	Total Cost
a	5/8" x 3/4" Water Meter Installation	Each	120,910		
b	1" Water Meter Installation	Each	14,208		
c	2" Water Meter Installation	Each	4,335		
d	3" Water Meter Installation	Each	178		
e	4" Water Meter Installation	Each	321		
f	6" Water Meter Installation	Each	82		
g	8" Water Meter Installation	Each	31		
h	10" Water Meter Installation	Each	21		
i	12" Water Meter Installation	Each	2		
	Subtotal				

Page #1 Subtotal

3) Pipe, Valves, and Fittings

	Pipe, Valves, and Fittings (includes Labor for Installation)	Vendor	Model	Unit of Measure	# of Units	Unit Cost	Total Cost
a	3/4" Curb Stop, Copper to Copper			Each	17,210		
b	1" Curb Stop, Copper to Copper			Each	2,110		
c	2" Curb Stop, Copper to Copper			Each	567		
d	3/4" Curb Stop, Meter Ball Valve			Each	17,210		
e	1" Curb Stop, Meter Ball Valve			Each	2,110		
f	2" Curb Stop, Meter Ball Valve			Each	567		
g	3" Resilient Seat Gate Valve			Each	45		
h	4" Resilient Seat Gate Valve			Each	80		
i	6" Resilient Seat Gate Valve			Each	20		
j	8" Resilient Seat Gate Valve			Each	8		
k	10" Resilient Seat Gate Valve			Each	5		
l	12" Resilient Seat Gate Valve			Each	1		
m	3/4" Meter Coupling			Each	13,768		
n	1" Meter Coupling			Each	1,687		
o	2" Meter Coupling			Each	454		
p	3" Mechanical Joint Fitting			Pound	375		
q	4" Mechanical Joint Fitting			Pound	650		
r	6" Mechanical Joint Fitting			Pound	275		
s	8" Mechanical Joint Fitting			Pound	150		
t	10" Mechanical Joint Fitting			Pound	125		
u	12" Mechanical Joint Fitting			Pound	100		
v	3/4" PE Tubing			Linear Foot	20,000		
w	1" PE Tubing			Linear Foot	4,000		
x	2" PE Tubing			Linear Foot	1,000		
y	3" PVC Pipe			Linear Foot	100		
z	3" DI Pipe			Linear Foot	100		
aa	4" PVC Pipe			Linear Foot	200		
bb	4" DI Pipe			Linear Foot	200		
cc	6" PVC Pipe			Linear Foot	50		
dd	6" DI Pipe			Linear Foot	50		
ee	8" PVC Pipe			Linear Foot	20		
ff	8" DI Pipe			Linear Foot	20		
gg	10" PVC Pipe			Linear Foot	10		
hh	10" DI Pipe			Linear Foot	10		
ii	12" PVC Pipe			Linear Foot	10		
jj	12" DI Pipe			Linear Foot	10		
ll	Spinner/Connector (Yoke Box Expansion Connector)			Each	3,500		
	Subtotal						

Page #2 Subtotal

4) Meter Boxes and Lids

	Boxes and Lids (includes Labor for Installation)	Vendor	Model	Unit of Measure	# of Units	Unit Cost	Total Cost
a	Replace Meter Box Lid- Yoke Box			Each	3,750		
b	Replace Meter Box Lid- 5/8"x3/4" and 1" Meters			Each	3,750		
c	Replace Meter Box Lid- 2" Meter			Each	225		
d	Replace Meter Box Lid- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each	100		
e	Replace Meter Box Lid- Cast Iron Vulcan Meter Box			Each	100		
f	Replace Meter Box Lid- Valve Box			Each	50		
g	Replace Meter Box Lid- Sigma with 2" Hole			Each	100		
h	Replace Meter Box & Lid in Asphalt- 5/8"x3/4" and 1" Meters			Each	1,000		
i	Replace Meter Box & Lid in Asphalt- 2" Meter			Each	100		
j	Replace Meter Box & Lid in Asphalt- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each	50		
k	Replace Meter Box & Lid in Concrete- 5/8"x3/4" and 1" Meters			Each	1,000		
l	Replace Meter Box & Lid in Concrete- 2" Meter			Each	100		
m	Replace Meter Box & Lid in Concrete- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each	50		
n	Replace Meter Box & Lid in Dirt, Grass- 5/8"x3/4" and 1" Meters			Each	2,000		
o	Replace Meter Box & Lid in Dirt, Grass- 2" Meter			Each	300		
p	Replace Meter Box & Lid in Concrete- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each	100		
q	Meter Box Re-Setting/Leveling - Dirt, Grass			Each	50,000		
r	Meter Box Re-Setting/Leveling - Concrete			Each	100		
s	Meter Box Re-Setting/Leveling - Asphalt			Each	100		
	Subtotal						

4a)[1] Meter Box and Lids (Include additional box & lid replacements if proposed meters with radio transmitter and antenna cannot fit in existing boxes)

	Boxes and Lids (includes Labor for Installation)	Vendor	Model	Unit of Measure	# of Units	Unit Cost	Total Cost
a	Replace Meter Box & Lid in Asphalt- 5/8"x3/4" and 1" Meters			Each			
b	Replace Meter Box & Lid in Asphalt- 2" Meter			Each			
c	Replace Meter Box & Lid in Asphalt- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each			
e	Replace Meter Box & Lid in Concrete- 5/8"x3/4" and 1" Meters			Each			
f	Replace Meter Box & Lid in Concrete- 2" Meter			Each			
g	Replace Meter Box & Lid in Concrete- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each			
h							
i	Replace Meter Box & Lid in Dirt, Grass- 5/8"x3/4" and 1" Meters			Each			
j	Replace Meter Box & Lid in Dirt, Grass- 2" Meter			Each			
k	Replace Meter Box & Lid in Dirt, Grass- Rectangular Valve Box Lid (17"x30" box) for Commercial and Residential			Each			
	Subtotal						

Page #3 Subtotal

5) Miscellaneous

	Miscellaneous	Unit of Measure	# of Units	Unit Cost	Total Cost
a	Concrete	Cubic Yard	1,000		
b	Asphalt	Cubic Yard	1,000		
c	Sodding	Square Yard	2,500		
d	Brick and Mortar for 4" & Larger Meter Vault	Square Foot	3,600		
e	Manhole Frame and Grate for 4" & Larger Meter Vault	Each	10		
f	Excavate Buried Meters (Labor)	Each	5,000		
g	Expose Pipe Material for LDH Survey (Labor)	Each	20,000		
	Subtotal				

6) AMI Infrastructure

				Unit of Measure	# of Units	Unit Cost	Total Cost
a	Fixed Network Radios with Nicor Connector			Each	140,108		
b	Fixed Network Radios with ERT Connector			Each	20,500		
c	Radio Mounting Brackets, if needed			Each	160,588		
d	Radio installation			Each	160,588		
e	Drilling hole through meter lid			Each	160,588		
f	Fire Hydrant Meter Radio Mounting Bracket			Each	20		
	Subtotal						

7) Network Device [2]

				Unit of Measure	# of Units	Unit Cost	Total Cost
a	Data Collector at Shrewsbury & I-10			Each	1		
b	Data Collector at David Dr. & Veterans Blvd.			Each	1		
c	Data Collector at 3600 Jefferson Hwy.			Each	1		
d	Data Collector at Westwego Ave. & 3rd St.			Each	1		
e	Data Collector at Marrero Rd. & 4th St.			Each	1		
f	Data Collector at Fairmont St. & Oak St.			Each	1		
g	Data Collector at Patriot St. & Allo Ave.			Each	1		
h	Data Collector at Hwy. 45 & Madere Pl.			Each	1		
i	Data Collector at Cheniere (Grand Isle)			Each	1		
j	Data Collector at East Grand Isle			Each	1		
k	Data Collector at Terry Parkway & Industry Canal			Each	1		
l	Data Collector Installation at Shrewsbury & I-10			Each	1		
m	Data Collector Installation at David Dr. & Veterans Blvd.			Each	1		
n	Data Collector Installation at 3600 Jefferson Hwy.			Each	1		
o	Data Collector Installation at Westwego Ave. & 3rd St.			Each	1		
p	Data Collector Installation at Marrero Rd. & 4th St.			Each	1		
q	Data Collector Installation at Fairmont St. & Oak St.			Each	1		
r	Data Collector Installation at Patriot St. & Allo Ave.			Each	1		
s	Data Collector Installation at Hwy. 45 & Madere Pl.			Each	1		
t	Data Collector Installation at Cheniere (Grand Isle)			Each	1		
u	Data Collector Installation at East Grand Isle			Each	1		
v	Data Collector Installation at Terry Parkway & Industry Canal			Each	1		
y	Handheld(s)			Each	20		
	Subtotal						

8) Professional Services

		Unit of Measure	# of Units	Unit Cost	Total Cost
a	Project Management	Lump Sum	1		
b	Call Center Services	Lump Sum	1		
c	Installation Software and AS400 Meter Replacement Interface	Lump Sum	1		
d	LDH Pipe Material Survey	Each	160,588		
e	Meter Data Management Software (SaaS) Configuration	Lump Sum	1		
f	IT System Interface(s)	Lump Sum	1		
g	Field Programming Software	Lump Sum	1		
h	Training	Lump Sum	1		
i	Printing & Postage	Lump Sum	1		
j	Warehousing	Lump Sum	1		
	Subtotal				

Page #4 Subtotal

9) Ongoing O&M Costs

		Year 1	Year 2	Year 3	Year 4
a	Meter Data Management System Software as a Service				
b	Customer Portal				
c	Data Collector - Backhaul				
d	Data Collector - Maintenance Plan				
e	Handheld - Maintenance Plan				

	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Meter Data Management System Software as a Service						
Customer Portal						
Data Collector - Backhaul						
Data Collector - Maintenance Plan						
Handheld - Maintenance Plan						

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Meter Data Management System Software as a Service						
Customer Portal						
Data Collector - Backhaul						
Data Collector - Maintenance Plan						
Handheld - Maintenance Plan						

	Year 17	Year 18	Year 19	Year 20		Total 20 Years
Meter Data Management System Software as a Service						
Customer Portal						
Data Collector - Backhaul						
Data Collector - Maintenance Plan						
Handheld - Maintenance Plan						

Subtotals

Initial Capital Cost (Sum of Items 1 through 8)	
Ongoing O&M Cost (20 years) (Sum of Item 9)	

Page #5 Subtotal	
Total Project Cost (Sum of Pages 1-5)	

METER SPECIFICATION SUMMARY - ATTACHMENT "G"

Proposer Name: _____

		Meter Characteristics						Operating Characteristics				Meter Dimensions		
Meter Size	Meter Type	Register Type (Mechanical Dial, Digital)	External Housing Material (Brass, Composite, etc.)	Measuring Element (Nutating Disc, Oscillating Piston, etc.)	Meter Connection Thread Material (Brass, Composite, etc.)	Internal/ External Strainer	Cable Connection Type (Nicor, ERT, etc)	Low Flow (gpm)	Typical Operating Range (gpm)	Maximum Continuous Flow (gpm)	Pressure Loss (Not to Exceed) (psi @ gpm)	Laying Length (inches)	Meter Width (inches)	Meter Height (inches)
5/8" x 3/4"	Positive Displacement													
1"	Positive Displacement													
2"	Positive Displacement													
3"	Turbine													
4"	Turbine													
6"	Turbine													
8"	Turbine													
10"	Turbine													
12"	Turbine													
2"	Compound													
3"	Compound													
4"	Compound													
6"	Compound													
8"	Compound													
3"	Fire Hydrant Meter with Gate Valve & Backflow Preventer													

		Meter Warranties				
		Housing	Register	AWWA New Meter Accuracy	AWWA Repaired Meter Accuracy	Extended Low Flow Meter Accuracy
5/8" x 3/4"	Positive Displacement					
1"	Positive Displacement					
2"	Positive Displacement					

		Housing	Register	Accuracy
3"-12"	Turbine			
2"-8"	Compound			
3"	Fire Hydrant Meter with Gate Valve & Backflow Preventer			

AMI SPECIFICATION SUMMARY - ATTACHMENT "G"

Proposer Name: _____		
AMI Type (Check which applies)		
Fixed - Licensed		
Fixed - Unlicensed		
Cellular		
Hybrid		
AMI System Characteristics		
Number of Data Collectors		
Repeaters Required	Y | N	
Meter Data Management System (Hosted/SaaS)	Y | N	
Customer Portal - Web-based	Y | N	
Customer Portal - iOS and Android Apps	Y | N	
ERSI Arc GIS Compatible	Y | N	
AS400 Compatible	Y | N	
PAYSTAR Compatible	Y | N	
ISO 27001 and/or SOC2 certified	Y | N	
Radio Low Battery Alert	Y | N	
Radio Through the Lid Antenna	Y | N	
Radio Reading Resolution	___ - digit	
Number of Water Consumption Readings per Day		
Number of Daily Radio Transmissions to Data Collectors		
Number of Days Radio Can Store Hourly Readings		
Leak Detection Alarm	Y | N	
Reverse Flow Alarm	Y | N	
Tamper Alarm	Y | N	
Pipe Burst Alarm	Y | N	
Radio or Install Software Transmits GPS Coordinates	Y | N	
Warranties		**If No, state warranty.**
Data Collector (1 years)	Y | N	
Radio (15 years no cost + 5 years prorated)	Y | N	
Handheld Devices (2 years)	Y | N	
List minimal bandwidth/network requirement Parish must meet		

ATTACHMENT "H" – METER ADDRESSES

If you would like to obtain a list of the meter addresses,

please contact the

Jefferson Parish Department of Water

Sidney J. Bazley III

Director

Jefferson Parish Department of Water

1221 Elmwood Park Blvd Suite 909 Elmwood, LA 70123

O: 504-736-6742 | E: sbazley@jeffparish.net