August 13th, 2024

Submitting Organization: Hansen Banner LLC
Authorized Individual: Robert C Slaton, EVP Account Management and Sales
Contact Person for this response:
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700 Gervais Street, Suite 100 Columbia, SC 29201

City of Kingsport, TN New Customer Information System

Hansen has completed the review of your request for proposal and has submitted a best and final offer of $1,698,000 with an applied discount of $637,906, resulting in an initial implementation cost of $1,060,094. In addition, Hansen has provided final pricing for recurring software services charges as outlined in the table below.

Item	Product Description	Monthly Charge
Up to 40,000 Utility Accounts	Hansen CIS, Hansen Self Service Portal, Hansen Inventory Manager. Software as a Service fees payable monthly in advance.	Hansen CIS - $10,800 Portal - $1,500 Inventory Test - $1,500
Additional Utility Accounts	Software as a Service fees payable monthly in arrears based on Active Accounts provided by The City the first business day after month end.	Hansen CIS - $.25 per account Portal - $.08 per active account Inventory Test - $.05 per Test

This proposal is considered firm for 90 days from August 13, 2024.

Name of Offer Firm:Hansen Banner, LLC

Print Name of Signatory: Robert C Slaton

Title of Signatory: EVP Account Management and Sales

HANSEN

Version 1

Software Service Agreement

Contents

This SOFTWARE SERVICE AGREEMENT (the "Agreement") is made and entered into as of [Date] (the "Effective Date"), by and between, Hansen Banner LLC with its primary place of business at 700 Gervais Street, Suite 100, Columbia SC 29210 ("Hansen"), and The City of Kingsport, TN (the "Client"). Client and Hansen shall be referred to below individually as a "Party" and together as the "Parties."

RECITALS

WHEREAS, Hansen has developed and is the proprietor of the Product.

WHEREAS, Hansen and the Client now wish to enter into arrangements for the license, support and maintenance of the Product and provision of the Services on the terms and conditions set out in this Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

1   Definitions

Definitions. The terms defined in this clause 1 shall have the meanings indicated herein. Capitalized terms defined in the body of this Agreement or in a separate Schedule shall have the meanings set forth herein or therein.

Acceptable Use Policy has the meaning given to that term in clause 19.1

Acceptance Criteria means the agreed criteria and expected test results in respect of the Product which are to be achieved in the course of the relevant Acceptance Tests as prepared by the Client.

Acceptance Certificate has the meaning given to that term in clause 4.4(a)

Acceptance Tests means the agreed acceptance tests (for user acceptance testing) as prepared by the Client in accordance with clause 4.2 and used to determine whether the Change Request or a deliverable under the Initial SOW, as the case may be, operates in accordance with its requirements.

Additional Services Charge means a charge for Additional Services, calculated either in accordance with Hansen's Standard Rates, or on a fixed-price basis.

Additional Services means any additional services, which are not included in clause 1 of Schedule 4, but which are incorporated into this Agreement using the change control procedures set out in Schedule 3.

Business Day means Monday to Friday inclusive but excluding public holidays in Country / Region of Service as set out in Schedule 1.

Business Hours corresponds to the hours 9:00 AM to 5:00 PM on Business Days.

Change Request means a request for change to the Services by the Client under clause 2.1 of the change control procedures set out in Schedule 3.

Charges means the charges payable by the Client pursuant to this Agreement, calculated and paid in accordance with Schedule 2, and clause 10.

Client Data means the Client's data, including Personal Data that is processed by the System under this Agreement.

Client Materials means any Materials provided by the Client to Hansen under or in connection with this Agreement but excluding the Client Data.

Commencement Date means the date where the Software Service begins operational use.

Confidential Information means all information of a confidential nature disclosed (whether in writing, verbally or by any other means and whether directly or indirectly) the "Disclosing Party to the Recipient whether before or after the date of this Agreement. For the avoidance of doubt, "Confidential Information" shall include (i) the terms of this Agreement, (ii) all information whether of a technical nature or otherwise relating in any manner to the business or affairs of the Disclosing Party, but excluding Personal Data, as may be communicated to the Receiving Party pursuant to this Agreement, and (iii) all know-how, techniques, methods, processes, ideas, principles and concepts that relate to the Services or any component thereof, which such information shall be considered the Confidential Information of Hansen.

Defect means (a) a failure of the Product to operate as currently implemented; or (b) any errors, deficiencies, omissions, non-conformances, faults, failures, malfunctions, irregularities or other defects in the Product or any other deliverable provided to the Client pursuant to a Change Request.

Detailed Quote means a quote provided by Hansen to the Client in accordance with clause 3.2 of the change control procedures set out in Schedule 3.

Disclosing Party means a party which discloses, communicates or gives access to its information, to the other party.

Government Agency means any government or any governmental, semi-governmental. Administrative, fiscal or judicial body, department, commission, authority, tribunal, agency or entity

Implementation Services means the initial setup of the System to provide the Software Service, as set out in the Initial SOW.

Implementation Services Charge means the charge payable to Hansen for the provision of the Implementation Services.

Initial Term means the term commencing from the Effective Date and continuing thereafter for the Services Term as specified in Schedule 1.

Initial SOW means the statement of work attached as Schedule 5.

Intellectual Property Rights means any rights of any kind in: (a) inventions, discoveries and novel designs, whether or not registered or registrable as patents or designs, including developments or improvements of

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equipment, products, technology, processes, methods or techniques; (b)   copyright (including future copyright) throughout the world in all literary works, artistic works, computer software, and any other works or subject matter in which copyright subsists and may in the future subsist; (c) confidential information and trade secrets; (d) trade and service marks (whether registered or unregistered); and (e) designs available on Internet sites.

Law means any common law requirement, statute, regulation, rule, proclamation, order, ordinance, or by-law issued by relevant regulators, whether Commonwealth, State, territorial or local that in any way directly or indirectly relates to this Agreement that are in effect on the Effective Date, as amended, updated or re-enacted from time to time.

Materials means any software, hardware, data, diagrams, specifications, system configurations, plans, items, manuals, documented methodology or process, reports, training materials, user guides and any other materials and documents in whatever form.

Out of Hours means all hours outside of Business Hours.

Product means the software programs for the Hansen product(s) as specified in Schedule 1, together with any technical information and documentation necessary for the use of such programs, that Hansen grants a right to use to the Client in the performance of Hansen's obligations under the Agreement.

Public Health Event means (a) a pandemic, epidemic, or disease; or (b) an imminent threat of an event described in (a).

Recipient means the party which receives or is given access to Confidential Information from the Disclosing Party.

Related Entity means, in relation to a party, any "related body corporate".

Release shall have the meaning set forth in Schedule 1.

Schedule means a schedule to this Agreement.

Services means (a) the Implementation Services, (b) Software Service, and (c) any other Additional Services incorporated into this Agreement through the change in control processes in Schedule 3.

Software Service means: (a) the application, hosting, maintenance and support for the Product provided by Hansen to the Client, as set out in clause 1 of Schedule 4, including any Third Party Software Products; and (b) the support services provided by Hansen to the Client as detailed in Schedule 4;

Software Service Usage Conditions means the usage conditions for the Software Service, as set out in Schedule 1.

Standard Rates means the Standard Rates charges set out in Schedule 2.

Statement of Work or SOW means a statement of work for Services entered into between the Parties in accordance with this Agreement.

Supported Version shall have the meaning set forth in Schedule 1.

System means the Product, the hardware, and the Third Party Software Products required by Hansen to run the Product, as Updated and/or modified by Hansen in accordance with clause 3.3, which provides the Software Service.

System Availability shall have the meaning set forth in clause 14.

Third Party Software Products means the third party software and products listed in Schedule 1 that will be supplied by Hansen as a pre-requisite for the Product to operate.

Transition Services means the services described in clause 18.

Term shall mean collectively, the Initial Term and any Additional Terms beyond the Initial Term.

Update means either the installation of Releases of the Product from time to time, or installation of updates to Third Party Software Products from time to time, as the case may be.

Version shall have the meaning set forth in Schedule 1.

2 Term of Agreement

2.1   Commencement. This Agreement commences on the Effective Date and shall continue at a minimum for the Initial Term, unless terminated earlier in accordance with clause 17.

2.2   Additional Terms. After the expiration of the Initial Term, this Agreement shall continue for additional one year periods (each an "Additional Term") until terminated by either Party giving to the other Party at least 3 months' prior written notice of termination prior to the end of the then-current term. Any Additional Term:

(a)   is on the same terms as this Agreement;

(b)   will be subject to the Charges for the relevant Services and Products being adjusted in accordance with clauses 10.5, 10.6, and Schedule 2; and

(c)   will commence on the day after the expiry of Initial Term or any subsequent Additional Term, as the case may be.

3 Services

3.1   Initial Setup. In consideration of the payment of the Implementation Services Charge, Hansen will provide the Implementation Services as set out in the Initial SOW, in accordance with the terms of this Agreement. The Client is to perform its obligations as also set out in the Initial SOW, and in accordance with this Agreement.

3.2   Software Service Commencement. On and from the Commencement Date, Hansen must provide the Software Service (and any Additional Services thereafter), and operate the System in accordance with the terms of this Agreement.

3.3   Updates and Modifications. In accordance with Schedule 4, Hansen may Update and/or modify the components of the System from time to time provided that such Update and/or modification does not adversely affect the provision of the Services.

3.4   Performance of the Services. In performing the Services and operating the System, Hansen must:

(a)   Ensure, from the Commencement Date until the Agreement expires or terminates, System Availability in accordance with clause 14;

(b)   at all times effect and maintain adequate security measures of the System to safeguard the System from any unauthorized access, use or interference;

(c)   as soon as reasonably possible notify the Client if Hansen becomes reasonably aware of any unauthorized access, use or interference of its System (including any unauthorized access, use or interference of any Client Data or Confidential Information that is stored on the System) and co-operate with the Client in the resolution of any issues arising from such unauthorized access, use or interference in accordance with clause 13;

(d)   not alter, modify or change any Client Data, unless the Client provides its prior written consent to such alteration, modification or change; and

(e)   comply with the terms of this Agreement

3.5   Non-exclusivity. This Agreement is non-exclusive and Hansen may provide such Product and Services to any other person.

4   Acceptance   Tests

4.1   Acceptance Testing. Where applicable, the Client shall test any deliverables provided:

(a)   pursuant to the Initial SOW; or

(b)   a Change Request;

in accordance with clause 4.2, Schedule 3 (in the case of a Change Request), and the applicable Acceptance Criteria.

4.2   Performance of Acceptance Tests. The Client shall be responsible for the preparation of the Acceptance Tests and all necessary acceptance test data for the purposes of conducting the Acceptance Tests. Hansen shall provide all reasonable assistance to the Client to enable it to complete the Acceptance Tests.

4.3   Hansen Participation. Hansen shall be entitled to observe and, to the extent agreed by the Parties, participate in the Acceptance Tests.

4.4   Acceptance Test Results. Upon satisfactory completion of the Acceptance Tests, the Client will within two (2) Business Days (or such other period as agreed) provide Hansen with written acknowledgment:

(a)   of acceptance of the deliverable ("Acceptance Certificate"); or

(b)   of rejection of the deliverable, in which case, clause 4.5 will apply.

4.5   Defect Correction. If the Client rejects a deliverable under clause 4.4(b), then without limiting any other right or remedy, the Client may:

(a)   provide Hansen with a list of Defects and Hansen will, at its own cost, correct the Defects within a reasonable time of receiving the list and provide the corrected deliverable to the Client for a repeat of the Acceptance Tests; or

(b)   grant a partial acceptance of the deliverable(s), in which case clause 4.7 will apply.

4.6   Deemed Acceptance. The Client shall be deemed to have accepted the deliverable upon the earlier of:

(a)   the Client issuing an Acceptance Certificate;

(b)   the deliverable being used in production; or

(c)   5 Business Days after the completion of the Acceptance Tests.

4.7   Partial Acceptance. If the Client partially accepts a deliverable under clause 4.5(b), the Client must notify Hansen of the modifications it considers necessary to enable the deliverable to comply with the Acceptance Criteria such that it meets the Acceptance Criteria. Upon receipt of that notification, the parties shall agree to the fixes necessary and the timeframes for resolution of the Defect. Upon Hansen implementing the necessary fixes, and the modified deliverable passing the Acceptance Tests the Client must accept the deliverable as modified.

5   Client Obligations and Responsibilities

5.1   Client Obligations and Responsibilities. In addition to those responsibilities noted elsewhere in this Agreement, the Client shall:

(a)   provide its own facilities necessary for accessing the System including:

    (i)   network connectivity (lines, usage and labor) to the System from the Client's other systems and any third-party systems that the Client requires an interface to; and

    (ii)   personal computer workstations and connectivity to the Client's network server;

(b)   provide first level support post-implementation. This includes a knowledgeable user responding to enquiries relating to the use of the Product and the initial investigation of any problems. A knowledgeable user is one who is competent and experienced in using the Product;

(c)   ensure that all passwords and user identifications are kept secure and only those employees of their company that are authorized shall have access to the System;

(d)   be responsible for the support and maintenance of all personal computer work-stations at the Client's premises;

(e)   provide Hansen with timely information on any matter which may materially impact Hansen's ability to provide the Services, including forecast changes in demand or volumes;

(f)   provide a primary point of contact for interaction with Hansen;

(g)   report all problems to Hansen in a reasonably timely manner as defined in Schedule 4;

(h)   provide on-going training to its own employees in how to use the Product. It is expected that the Client will have a person (or persons) who are appropriately skilled in the operational use of the Product to train their own staff; and

(i)   be responsible for management of any third parties that the Client requires to be interfaced to;

(j)   be responsible for all other Client Responsibilities as set out in Schedule 4.

6   Training and Additional Services

6.1   Training. Where agreed in the Initial SOW, Hansen will provide training as specified in that SOW. Any additional training requested by the Client is an Additional Service and subject to payment of an Additional Charge.

6.2   Additional Services. The Client may request that Hansen provide it with Additional Services. Any Additional Services will be subject to payment of an Additional Services Charge, and shall be entered into in accordance with the Change Request processes in Schedule 3. The parties may enter one or more SOWs pursuant to the Change Request process during the Term.

7   Right to Access

7.1   Access Grant. Subject to payment of the recurring Software Service Charges described in Schedule 2, Hansen grants to the Client a non-exclusive, non-transferable, irrevocable, right to access the Product and System in the Territory, in order to utilize the Services for its own internal business activities in the Territory, subject to the Software Service Usage Conditions, for the Term (except where this Agreement is terminated in accordance with clause 17.1).

7.2   Other Restrictions. Except as permitted by law, the Client will not copy, alter, modify, reverse engineer, decompile, sub-license or reproduce the Product without Hansen's prior written consent or create derivative works of the Product. Except as otherwise permitted herein, in no event shall the Client be permitted, or permit any third party to use the Product or the Services for time-sharing, rental, or service bureau purposes.

8 Ownership of Client Data

8.1 Ownership of Client Data. Hansen acknowledges that there is no transfer of title to or ownership of Client Data to Hansen and the Client Data will remain the property of the Client.

8.2 Service Improvements. Hansen may aggregate data and information related to the performance, operation and use of the System to create statistical analyses, to perform benchmarking, to perform research and development, to provide additional services, and to perform other similar activities ("Service Improvements"). Hansen will not incorporate Client Data in Service Improvements in a form that could identify Client or its customers, and Hansen will use appropriate techniques to anonymize Client Data prior to performing Service Improvements. Hansen retains all intellectual property rights in Service Improvements.

9 Ownership of Software and Materials

9.1 Product and the System. The Client acknowledges that Hansen remains the sole owner of the Product and the System and all Intellectual Property Rights associated with the Product and the System, or Hansen has obtained the necessary licenses and approvals for certain System components to provide the Services in accordance with this Agreement.

9.2 Modifications. All Intellectual Property Rights in any modifications to the Product shall immediately vest in Hansen.

9.3 Pre-Existing Materials. The Intellectual Property Rights in the Materials which are pre-existing as at the Effective Date will not be altered or transferred or assigned to either Party merely by virtue of the use of such Materials for the purpose of this Agreement.

9.4 New Material. The Intellectual Property Rights in the Materials created by Hansen for the purpose of, or in connection with, this Agreement vests in, and is owned by, Hansen.

9.5 Client IPR Warranty. The Client warrants that Hansen's use of the Client Materials does not infringe the Intellectual Property Rights of any third party.

9.6 Client Materials Usage Grant. The Client grants to Hansen a royalty-free and non-exclusive right to use any of the Client Materials supplied for the purpose of Hansen's performance of its obligations under this Agreement.

9.7 Hansen IPR Warranty. Hansen warrants that the Client's use of Hansen's Materials does not infringe the Intellectual Property Rights of any third party.

9.8 Hansen Materials Usage Grant. Hansen grants to the Client a royalty-free and non-exclusive right to use any of Hansen's Materials supplied for the purpose of the Client's performance of its obligations under this Agreement.

9.9   Hansen IPR Indemnity. Provided the Client has not altered or modified the Product, and is using a Supported Version, Hansen shall indemnify the Client against liabilities, damages, costs and demands, actions, expenses suffered or incurred by the Client in connection with or arising out of any claim that the use or possession of the Product in accordance with the terms of this Agreement infringes the Intellectual Property Rights of any third party, provided that Hansen is given prompt and complete control of such claim, that the Client does not prejudice Hansen's defense of such claim, that the Client gives Hansen all reasonable assistance at Hansen's cost with such claim and that the claim does not arise as a result of the use of the Product in combination with any hardware or software. Hansen shall have the right to replace or change all or any part of the Product in order to avoid any infringement but shall ensure that the changed or replaced product shall provide the same functionality and performance. The foregoing states the entire liability of Hansen to the Client in respect of the infringement of the Intellectual Property Rights of any third party.

9.10 Client IPR Indemnity. To the extent permitted by law, Client shall indemnify Hansen against liabilities, damages, costs and demands, actions, expenses suffered or incurred by Hansen in connection with or arising out of any claim that the use or possession of the Client Materials (including Client Data), in accordance with the terms of this Agreement infringes the Intellectual Property Rights of any third party, provided that Client is given prompt and complete control of such claim, that Hansen does not prejudice Client's defense ofsuch claim, and that Hansen gives Client all reasonable assistance at Client's cost with such claim.The foregoing states the entire liability of Client to Hansen in respect of the infringement of the Intellectual Property Rights of any third party.

10 Charges

10.1 Payment of Charges. The Client shall pay Hansen the Charges in accordance with this clause 10, and Schedule 2. Charges shall be in the currency set out in Schedule 1.

10.2 Timely Payment. Subject to clause 10.3 and 10.4, if any invoiced amount payable by Client to Hansen (under the terms of payment set out in Schedule 2) is not paid by the due date for payment which is:

(a)   as detailed in Schedule 2; or

(b)   in the event of a disputed invoice, where it has been resolved that the invoiced amount ought properly to have been paid by the initial due date, the date which is thirty (30) days from the end of the month in which the resolution was reached,

Hansen may at its discretion charge the Client interest on the outstanding invoiced amount from the date when the invoiced amount fell due for payment (under the terms of payment set out in Schedule 2) up to and including the date of payment of the invoiced amount, which interest shall be deemed to accrue from day to day and shall be payable together with the invoiced amount and such interest shall be calculated at a rate equal to one and one-half percent (1.5%) per month, or the maximum legal interest rate, whichever is less.

10.3   Disputed Invoices. If the Client disputes the whole or any portion of an amount claimed in an invoice submitted by Hansen under clause 10.2, the Client must advise Hansen within 30 calendar days of receipt of the invoice, otherwise it shall be deemed that the invoice is accepted. In the event of such dispute the Client shall pay the portion of the amount stated in the invoice which is not in dispute and shall notify Hansen in writing (within 30 days of receipt of the invoice) of the reasons for disputing the remainder of the invoice.

10.4   Taxes. The Charges and all other amounts due to Hansen as detailed in this Agreement are net amounts to be received by Hansen, exclusive of all taxes, levies, imposts, duties, excise, charges, deductions, withholdings and assessments, however described, imposed by Law or a Government Agency, including without limitation all sales, withholding, goods and services tax, import or export tax, value-added tax, excise and use taxes (collectively, "Taxes") and are not subject to offset or reduction because of any Taxes incurred by the Client or otherwise due as a result of this Agreement. Notwithstanding anything herein to the contrary, the Parties acknowledge and agree that as a governmental entity, Client shall not be responsible for sales or use taxes incurred for products or services. The foregoing is contingent upon Client supplying Hansen with its Sales and Use Tax Exemption Certificate upon signing of this Agreement. Hansen shall bear the burden of providing its supplies with a copy of Client's tax exemption certificate and shall assume liability for such applicable sales and use taxes, if any, that may be incurred.

10.5   Annual Adjustment. Each year, on the anniversary of the Effective Date ("Adjustment Date"), the Charges will be increased as described in Schedule 2.

10.6   Developments. If there are any Additional Services, Hansen may as part of the Detailed Quote to the Client in relation to the development, make provision for an adjustment to the Charges, and any adjustment to the Charges shall be payable on a pro rata basis for the remainder of the then current term.

11 Warranties

11.1   General Warranty. Hansen warrants to the Client that:

(a)   All Services will be performed and the Products will be provided:

(i)   with due care and skill and will be in accordance with a level of skill, prudence and professional expertise generally provided by suppliers of similar services;

(ii)   so as to minimize (as far as reasonably possible) disruption to the Client's business;

(iii)   without infringing, directly or indirectly, the Intellectual Property Rights of any other person.

(b)   it has the full capacity and all necessary licenses, permits and consents to enter into and to perform this Agreement.

(c)   it will make reasonable efforts to conform the customer facing Hansen Self Service Portal to the accessibility guidelines, including, but not limited to, supporting assistive software or devices such as large-print interfaces, text-to-speech output, refreshable braille displays, voice-activated input, and alternate keyboard or pointer interfaces, etc., established by the World Wide Web Consortium's Web Content Accessibility Guidelines 2.2 (WCAG 2.2), and the accessibility guidelines established by Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C.

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794d), and implementing regulations set forth in 36 C.F.R. Part 1194. Notwithstanding the foregoing, City acknowledges and understands the legal and practical distinction between 'software' and 'content,' and further agrees that City, not Vendor, shall have sole responsibility for WCAG 2.2 and Section 508 compliance as it relates to content.

11.2   Client Warranty. The Client warrants that it will fully comply with Hansen's Acceptable Use Policy.

12 Confidentiality

12.1   A Recipient agrees:

(a)   to keep all the Disclosing Party's Confidential Information confidential;

(b)   not to use the Disclosing Party's Confidential Information other than for the purposes of this Agreement;

(c)   not to disclose the Disclosing Party's Confidential Information to any third party without the prior written consent of the Disclosing Party; and

(d)   ensure that all of its employees or subcontractors who receive or have access to the Disclosing Party's Confidential Information observe all of the confidentiality obligations and undertakings in this Agreement.

12.2   Notwithstanding any other provision of this Agreement, a Recipient may disclose the Disclosing Party's Confidential Information:

(a)   to the Recipient's employees and subcontractors who need to know the information in the course of their employment or consultancy for the purpose of enabling the Recipient to fulfil its obligations under this Agreement provided that the Recipient has first made its employees and subcontractors who need to know the information are aware of the:

    (i)   confidential nature of the Confidential Information; and

    (ii)   terms of this Agreement;

(b)   to the extent required by and in conformance with any law applicable to the Recipient or by any authority or regulatory bodyhaving jurisdiction over the Recipient; and

(c)   to the Recipient's related companies, solicitors, auditors, insurers and accountants for the purpose enabling those persons to use the information for the purpose of advising or reporting to the Recipient.

12.3   Clause 12.1 does not impose obligations on the Receiving Party in connection with the Disclosing Party's Confidential Information that:

(a)   at the date of this Agreement is publicly available or subsequent to the date of this Agreement becomes publicly available without breach of this Agreement;

(b)   the Receiving Party obtained from a third party without breach by that third party of any obligation of confidence in connection with that Confidential Information; or

(c)   was in the Receiving Party's possession (as evidenced by written records) prior to it being disclosed to the Receiving Party by or on behalf of the Disclosing Party.

13 Security

13.1   IT Security Obligations. Each Party shall maintain an information security program that includes appropriate technical, administrative, and physical safeguards in accordance with good industry practices. In the case of Hansen, such safeguards are as described in its IT Security Handbook, as updated from time to time (IT Security Measures).

13.2   IT Security Breach. Where Hansen becomes reasonably aware that there has been a breach of Hansen's IT Security Measures that results in any unauthorized access to the System (a Notifiable Incident), then:

(a)   Hansen shall promptly notify the Client of the Notifiable Incident. Each notification under this section 13.3 must (to the extent then known) include the nature and details of the Notifiable Incident, any remedial action performed by Hansen, and recommendations for any actions to be taken by the Parties.

(b)   Hansen shall take appropriate remedial action to mitigate and/or remediate the Notifiable Incident; and

(c)   Hansen and the Client shall meet in good faith to discuss the Notifiable Incident, and agree in writing on the appropriate remedial actions to be performed by the Parties in order to resolve the Notifiable Incident.

13.3 Under this Section 13 and for purposes of this Agreement a Notifiable Incident is any breach of IT Security Measures regardless of fault, this includes cyberattacks, hacks and other malicious acts of third parties.

14 System   Availability

14.1   General Availability. Hansen shall use commercially reasonable efforts to ensure an uptime to the level defined in Schedule 1 with regard to the System ("System Availability"), excluding during the following periods:

(a)   where Hansen performs Scheduled Maintenance or Unscheduled Maintenance, as further described in clause 14.2;

(b)   where there that has been a suspension in accordance with clause 19;

(c)   Where System is unavailable due to factors outside of Hansen's reasonable control, including any Force Majeure event or where Internet access is not available; or

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(d)   Where Client has failed to pay outstanding Charges.

14.2   System Maintenance. Client acknowledges that from time to time Hansen will need to perform certain maintenance tasks in relation to the System (such as database reorganization, hardware upgrades, data archiving and software Updates) ("Scheduled Maintenance"), and during such time the System or certain components of the System may be offline, or may be operating at reduced capacity levels. Hansen will use commercially reasonable efforts to notify Client of System Maintenance with at least 5 Business Days' notice in advance. Supplier will use commercially reasonable efforts to execute the System Maintenance during the period of lowest anticipated system usage. Client further acknowledges that, from time to time Hansen may declare that it must perform unscheduled maintenance on the System (for instance where critical software patching or emergency maintenance must be performed) ("Unscheduled Maintenance"). In such an event, Hansen will use its best endeavors to notify Client of the Unscheduled Maintenance with as much notice as possible.

15 Employees and Contractors

15.1   Each Party agrees that when its staff are present on the premises of the other Party they shall comply with such rules and regulations as are notified to them for the conduct of staff on those premises.

15.2   Hansen staff engaged in providing Services shall at all times remain under the direction and control of Hansen, unless where specifically agreed otherwise in advance from time to time, with such agreement to be made by the Parties in writing.

15.3   During the Term, and for a period of six (6) months thereafter, neither Party shall on its own behalf or on behalf of any person directly or indirectly entice or endeavor to entice away from the other Party any employee or contractor of such other Party. Notwithstanding the foregoing, either Party may hire any such employee or contractor who independently seeks employment through normal channels or who responds to a general solicitation conducted in the ordinary course of business (such as an advertisement in a trade journal or an independent and non-directed solicitation by a third-party employment recruiter who approaches such employee on a wholly unsolicited basis). In the event a Party does employ any of the other Party's current or former employee or contractor who was at any time during the Term involved in the performance of this Agreement, the Party so hiring shall make payment to the other Party, by way of liquidated damages, an amount equal to the annualized base compensation and benefits at which the hiring Party hired such individual, and shall make the payment therefor to the other Party within thirty (30) calendar days of the date of receipt of the invoice for such payment.

15.4   Where during the period specified in clause 15.3 any employee or contractor to whom that clause relates seeks to be employed by the other Party, that other Party shall promptly so advise the first Party.

15.5   Hansen will ensure that all of its employees or subcontractors engaged to supply the services under this Agreement shall be suitably qualified for performance of the duties allotted to them. Hansen will follow Key Personnel, of the initial SOW, for replacing resources while working under the Hansen CIS Implementation SOW.

16 Liability

16.1 Each Party acknowledges and agrees that in no event shall either party or any of their officers, directors, employees, shareholders, agents, or representatives be liable to the other Party, any of its affiliates, or any other party for any Indirect or Consequential Losses whether such liability is based on contract, tort, negligence, strict liability, products liability or otherwise, arising from or relating to this Agreement even if a party has been notified of the possibility or likelihood of such damages occurring.

16.2 For the purposes of clause 16.1, "Indirect or Consequential Losses" means any of the following types of losses:

(a)   loss of revenue;

(b)   loss of actual or anticipated savings

(c)   loss of profit;

(d)   loss of goodwill;

(e)   lost opportunity;

(f)   any exemplary, punitive or special damages; or

(g)   any other similar indirect or consequential losses.

16.3 Client warrants that it has not relied on any representations made by Hansen which has not been stated expressly in this Agreement or upon any descriptions or illustrations or specifications contained in any document including any catalogues or publicity material produced by Hansen.

16.4 Hansen warrants that it has not relied on any representations made by the Client which has not been stated expressly in this Agreement.

16.5 Each party acknowledges and agrees that, subject to clause 16.6, in no event will either Party or any of their officers, directors, employees, shareholders, agents, or representatives be liable to the other Party, any of its affiliates, or any other Party for any damages to the other Party, any of its affiliates, or to any third party, whether such liability is based on contract, tort, negligence, strict liability, products liability or otherwise, for an amount exceeding the total amount paid by the Client in the 12 month period prior to the date on which such liability arose.

16.6 The limitations of liability under clause 16.5, do not apply to the following liabilities:

(a)   liability that the Parties cannot contract out of at law;

(b)   liability for death or personal injury;

(c)   liability for infringement of third party Intellectual Property Rights;

(d)   liability for a breach of Section 12 (Confidentiality)

(e)   liability for fraud, fraudulent concealment or dishonesty;

(f)   liability for any grossly negligent act or omission; and

(g)   liability for any malicious or criminal act or omission.

16.7 Where Hansen has lost or corrupted Client Data due to its grossly negligent or willful acts or omissions, Hansen will use its best endeavors to recover the Client Data by restoring the Client Data from the latest backups Hansen is required to keep.

16.8 Cyber Attacks. In no event shall a Party (Attacked Party) be liable to the other Party for any breaches under section 13 (Privacy and Security) that are solely the result of a 'cyberattack', 'hack' or other intentional data security breach performed by a hostile third-party, provided that the Attacked Party took commercially reasonable measures in line with good industry practices and in line with their IT Security Measures to prevent the breach.

17 Termination

17.1 Either Party ("Party A") may by written notice to the other Party ("Party B") terminate this Agreement immediately upon the happening of any of the following events:

(a) Party B fails to pay an invoiced amount within 90 days of the due date of the invoice;

(b) Party B fails to observe or perform any material provision of this Agreement that Party B fails to remedy within thirty (30) days after receiving a written notice from Party A detailing the breach and requesting that it be rectified;

(c) Party B commits any act of bankruptcy or insolvency or an order is made for the bankruptcy or winding up of Party B or a resolution is passed for the winding up of Party B otherwise than for the purposes of amalgamation or reconstruction;

(d) Party B enters into a compromise arrangement with creditors;

(e) a receiver or official manager of Party B or of any material part of its assets, is appointed; and

(f) a Force Majeure event causes a suspension of a Party's material obligations for a period of more than thirty (30) days.

17.2 Termination of this Agreement under clause 17.1 takes effect on the date of receipt by Party B of a notice given under that clause. Any amounts owed under this Agreement up to the point of termination shall be due and payable within 30 days of Hansen providing the Client with a tax invoice.

17.3 Termination of the Agreement shall not extinguish or affect:

(a) any rights of either Party against the other which:

(i) accrued prior to the time of termination; or

(ii) otherwise relate to or may arise at any future time from any breach or non-observance of obligations under this Agreement which arose prior to the time of termination; or

(b) the provisions of this Agreement which by their nature survive termination.

17.4 Forthwith upon the termination of this Agreement, all usage rights granted by Hansen shall be terminated, and the Client shall return to Hansen any part of the Product in the possession or control

of Client. Each Party shall return to the other Party all Confidential Information and Personal Data in all forms and all copies of the whole or any part thereof in its possession, or, if requested by the other Party, shall destroy the same (in the case of the Product by erasing it from any media on which they are stored) and certify in writing that they have been destroyed.

18 Transition   Services

18.1   In addition to the obligations set out in clause 17.4, on the termination or expiration of this Agreement by either Party, Hansen may, subject to clause 18.2, if requested by the Client, provide the Client with such assistance as the Client may reasonably require to facilitate the orderly transfer of the Services provided pursuant to this Agreement to another services provider or to the Client itself.

18.2   The Transition Services will be provided by Hansen to the Client, subject to Hansen staff resource availability and on a time and materials basis at the Standard Rates. The Parties will agree a reasonable timetable for transition and costs associated with the transition promptly after notice is given.

18.3   Hansen shall comply with this clause 18 irrespective of the reason for termination of this Agreement, however it is agreed that if Hansen has terminated the Agreement pursuant to clauses 17.1(a)-(e), then Hansen will only be obligated to comply with this clause 18 if the Client pays in advance for any such services requested of Hansen and remedies any outstanding breaches by the Client, where such breaches are capable of being remedied.

19 Acceptable Use Policy

(a)   Hansen Acceptable Use Policy. So as not to impede the proper running and performance of the System, Client agrees to adhere to the Acceptable Use Policy:

(b)   Client must not:

  (i)   use unapproved automated tools, including, but not limited to automated scripts, to extract or manipulate data on the System;

  (ii)   screen scrape data from the System;

  (iii)   use automated bots to extract data from the System;

  (iv)   use or access the System in a way prohibited by Law;

  (v)   use or access the System in a way that could (i) harm the System or (ii) impact System performance; or

  (vi)   participate in excessive execution of datamart reporting.

(c)   Client must only utilize interfaces provided by or approved by Hansen to access the System;

(d)   Hansen reserves the right to suspend any individual user connection or user in breach of this clause 19, with immediate effect, provided that in the event that such suspension takes place, Hansen shall notify the Client as soon as practicable to notify the Client about the event, and to determine, in good faith, how to reinstate the individual user connection or user account.

20 Miscellaneous

20.1   Notices. Any notice to be given by one Party to the other Party pursuant to this Agreement shall be given in writing in the English language by prepaid registered post, nationally or internationally recognized overnight courier, by email (with a confirmation copy to be sent by nationally or internationally recognized overnight courier, provided that failure to send such confirmation copy shall not prevent the email notice from being effective), or shall be delivered by hand, provided that: (i) any notice given by prepaid registered post shall be deemed to have been received by the addressee, in the absence of proof to the contrary, fourteen (14) days after the date of postage; (ii) any notice given by overnight courier shall be deemed to have been received by the addressee, in the absence of proof to the contrary, the day after such notice was sent; (iii) any notice delivered by hand shall be deemed to have been received by the addressee, in the absence of proof to the contrary, at the time of delivery; (iv) any notice given by email shall be deemed to have been received by the addressee, in the absence of proof to the contrary, immediately upon the transmission of the email to the email address specified in Schedule A; and (v) notices received (whether by post, courier, email or hand) on a day that is not a Business Day or after 5pm on a Business Day, shall be deemed to have been received on the next Business Day. The addresses detailed in Schedule A shall be used for service of all documents and notices relating to this Agreement.

20.2   Public Appropriations. Client is a governmental entity, and the validity of this Agreement is based upon the availability of public funding under its authority. In the event Client fails to appropriate funds or make monies available for any fiscal year covered by the term of this Agreement for the services to be provided, Client shall notify Hansen in writing of the lack of funding and intent to terminate no later than six months prior to the end of the current fiscal year. Upon receiving notice as described and in the time period listed in this Section,   this Agreement shall be terminated on the last day of the fiscal year for which funds were appropriated or monies made available for such purposes without liability to Client other than payment for the services rendered up until the end of the Agreement. Such termination shall not be a breach of this Agreement, and any unused payment made to Hansen shall be returned to Client.

20.3   Force Majeure. Neither Party shall be liable to the other for any delay or non-performance of its obligations under this Agreement, other than payment of money, arising from any cause(s) beyond its reasonable control including, without limitation, any of the following: act of God, governmental act, war, fire, terrorism, flood, explosion, civil unrest, industrial dispute of a third party ("Force Majeure Event"). Subject to the Party so delaying promptly notifying the other Party in writing of the reason for the delay and the likely duration of the delay, the performance of the delaying Party's obligations, to the extent affected by the delay, shall be suspended during the period that the cause persists. Each Party shall use all reasonable efforts to avoid the effect of that cause provided that if performance is not resumed within thirty (30) days of that notice, the non-delaying Party affected by the delay shall be entitled to terminate this Agreement. Neither Party shall have any liability to the other Party in respect of the termination of this Agreement as a result of a Force Majeure Event.

20.4   Public Health Force Majeure. If a Party ("Affected Party") is unable to perform an obligation or exercise a right or power of the Party under this Agreement, other than payment of money, solely as a consequence of a Public Health Event, or compliance with any direction or order by any authorityor government body made in connection with a Public Health Event, the Affected Party must promptly give written notice to the other party ("Public Health Event Notice"). The Parties acknowledge and agree that upon valid service of a Public Health Event Notice by an Affected Party

to the other Party the time for performance of the obligation or the exercise of the right or power is (a) suspended and ceases to be of the essence in relation to the obligation, right, or power; and (b) postponed by the number of days that the Affected Party is unable to perform an obligation, or exercise a right or power of the Party. An Affected Party must (a) take reasonable steps to minimize the effect of the Public Health Event on the Affected Party's ability to perform obligations, or exercise rights or powers under this Agreement; and (b) when the Affected Party is no longer prevented from performing its obligations, or exercising its rights or powers under this Agreement due to the Public Health Event, promptly (i) give notice to each other Party that the Affected Party is no longer prevented from performing its obligations, or exercising rights or powers under this Agreement due to the Public Health Event; and (ii) re-commence carrying out its obligations under this Agreement.

20.5   No Partnership. The relationship of Hansen and Client established by this Agreement is that of independent contractors, and nothing contained in this Agreement shall be construed to: (i) give either Party the power to direct and control the day-to-day activities of the other, (ii) constitute the Parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking, or (iii) allow either Party to create or assume any obligation on behalf of the other Party for any purpose whatsoever.

20.6   Subcontractors. Hansen may subcontract for the performance of this Agreement or any part of this Agreement, provided that Hansen is fully responsible for its obligations under this Agreement even if it has subcontracted all or any part of such obligations under this clause 20.5.

20.7   Validity and Severability. If any provision of this Agreement is found or held to be invalid, unlawful or unenforceable, the validity of the other provisions of this Agreement shall not be affected thereby. In such event the Parties shall meet and review the matter and if any valid and enforceable means is reasonably available to achieve the same commercial object as the invalid or unenforceable provision, they shall adopt such means by way of variation of this Agreement.

20.8   Entire Agreement. This Agreement, including all Schedules, and replaces all prior agreements and arrangements between the Parties and constitutes the entire understanding between the Parties relating to the subject matter of this Agreement. No oral representations, warranties or promises shall be implied as terms of this Agreement unless expressly incorporated herein. Any and all pre-printed terms including any additional or inconsistent terms contained in any Client purchase order are expressly excluded.

20.9   Waiver. A waiver by either Party of a breach of any term or condition of this Agreement in any one instance shall be in writing and shall not be deemed as a continuing waiver or a waiver of any other or subsequent breach unless the written notice so provides.

20.10 Assignment. A Party may not assign, sub-license, transfer or otherwise dispose of any rights or sub-contract, transfer, delegate or otherwise dispose of any obligations under this Agreement except with the prior written approval of the other Party. A Party (the "Assignor") may however assign, sub-license, transfer to or otherwise dispose of all of its rights and all of its obligations under this Agreement to any Related Entity, provided that the financial standing and creditworthiness of such Related Entity is not less sound than that of the Assignor; and in the case of Client, provided further that such Related Entity is not a direct competitor of Hansen.

20.11 Governing Law, Disputes. This Agreement shall be governed by and construed in accordance with the substantive and procedural laws of the State of Tennessee without reference to the choice of

lawprovisions and conflict of laws principles thereof. Accordingly, any dispute arising out of or having anyconnection with this Agreement (including one regarding the existence, validity or termination of this Agreement) shall be decided exclusively in accordance with the laws of the State of Tennessee. Theprovisions of this clause 20.11 are severable from the rest of this Agreement and shall remain in effect despite the termination of or invalidity for any reason of this Agreement. The parties expresslyagree that the United Nations Convention on Agreements for the International Sale of Goods will not apply to this Agreement. Upon any dispute occurring between the Parties to this document in respectof its interpretation or application, the following provisions are to apply:

(a)   The Parties shall:

   (i)   formally refer the dispute to their respective contract mangers for consideration:

   (ii)   if the respective contract managers are unable to resolve the dispute after five (5) days (or such other period as is agreed between the Parties) from the date of referral, refer the dispute to the respective chief executive officers of each Party; and

   (iii) in good faith explore the prospect of resolution.

(b)   If the dispute cannot be settled by negotiation between the Parties or their representatives pursuant to clause 20.10(a) then the dispute must be referred to mediation as follows:

   (i)   the mediator shall be a mediator agreed upon by the Parties;

   (ii)   the Parties shall be jointly responsible for the fees of the mediation and each Party must pay its own costs in respect of it;

   (iii) the Parties may be legally represented;

   (iv)   the place of mediation shall be at a location agreed upon by the Parties.

(c)   Any resolution of a dispute arrived at pursuant to the process set forth in sub-sections (a) and (b) hereinabove which necessitate an amendment to this Agreement shall not be binding until approval of the same has been adopted by Client's Board of Mayor and Aldermen.

(d)   In the event that mediation does not occur within twenty-one (21) days of the mediation being agreed or nominated pursuant to clause 20.10(b) then the dispute may be referred to any court or tribunal having jurisdiction in Kingsport, Sullivan County, Tennessee. Nothing in this clause 20.10 shall prevent a Partyfrom seeking urgent equitable relief before an appropriate court. The Parties hereby waive any right to trial by jury.

20.12 Insurance. Hansen, at its own cost and expense, shall maintain during the term of the Agreement the insurance set out in Schedule 1. Hansen shall, upon the request of Client, provide Client with certificates of insurance and endorsements evidencing the coverages required hereunder.

20.13 Marketing. Hansen may use the Client's name and logo to identify the Client as a Hansen customer and user of the System.   In addition, the Parties will work together in good faith to produce a press release upon the execution of this agreement and/or the Commencement Date, white papers, case studies, and other marketing materials as mutually agreed upon from time-to-time. Once approved by both Parties, such materials may be used by each Party without payment to the other Party in

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furtherance of sales and marketing efforts.

20.14 Modern Slavery. Hansen conducts its business, and will provide the Services, in accordance with Hansen's Modern Slavery Policy, which is available on the Hansen's website, and Hansen can provide a copy to Client upon written request. Hansen additionally publishes an annual Modern Slavery Statement, which can also be found on Hansen's website, a copy of which Hansen can provide to Client upon written request.

20.15 Changes in Law. Where there are any changes in Law that may materially impact this Agreement, then the Parties shall agree in good faith on any amendments that may be required to this Agreement

20.16 Interpretation. Clause and paragraph headings are inserted for convenience only and shall not be used in the interpretation of associated text.

20.17 Precedence. The documents comprising this Agreement shall be read in the following order of precedence: (1) the applicable Detailed Quote (or SOW implementing that Detailed Quote, as the case may be) ; then (2) the Initial SOW; then (3) the clauses of this Agreement; then (4) the Schedules. Where any conflict occurs between the provisions contained in two or more of the documents forming this Agreement, the document higher in the order of precedence shall where possible take precedence to resolve such conflict.

20.18 Variation and Change Control Procedure. The provisions of this Agreement shall not be varied, except by agreement in writing signed by the Parties, except for any Additional Services which may be agreed in accordance with the change control procedures specified in Schedule 3, or where otherwise provided for in the Agreement.

20.19 Survival of Agreement. Subject to any provision to the contrary, this Agreement shall endure to the benefit of and be binding upon the Parties and their successors, trustees, permitted assigns or receivers but shall not endure to be benefit of any other persons. Clauses 8, 9, 12, 13, 16, 17.3, 17.4, , 18, 20.10, and this clause 20.17 survive termination or expiration of this Agreement.

20.20 No Presumption Against Drafter. Each of the Parties has jointly participated in the negotiation and drafting of this Agreement. In the event of an ambiguity or if a question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by each of the Parties and no presumptions or burdens of proof shall arise favoring any Party by virtue of the authorship of any of the provisions of this Agreement.

[Signatures Appear on the Following Page]

IN WITNESS WHEREOF the Parties hereto, by their duly authorized representatives, have executed this Agreement as of the date first set forth above.

Hansen Banner, LLC **City of Kingsport, Tennessee**

_____ _____
Signature **Paul W. Montgomery, Mayor**

_____ _____
Date **Date**

_____
Printed Name **Attest:**

_____ _____
Title **Angela Marshall, Deputy City Recorder**

Approved as to form:

_____
Rodney B. Rowlett, III, City Attorney

Schedule 1. Agreement Particulars

Term	Agreed Position
Country / Region of Service	United States
Territory	USA
Services Term	5 years from the Commencement Date.
Products	Hansen CIS, Hansen Self Service Portal, Hansen Inventory Test
Software Service Usage Conditions	• Two (2) AWS environments Production and Non -production. • Non-production will contain both Training and Development Environments. Production will contain a reporting database in addition to the Hansen CIS application database • Production availability 24X7 (except for scheduled outages); and non-production availability on Business Days, 12 hours per day • Disaster Recovery Environment is included
Third Party Software Products	
Version and Supported Version	
Release	2023
Currency	US Dollar
Insurance	See Appendix I - Insurance
System Availability	Hansen shall use commercially reasonable efforts to ensure the following System Availability: 99.5%
Location for Notices: Hansen	Attention: General Counsel Hansen Banner, LLC 74 W Broad St Suite 530 Bethlehem, PA 18018 Email: LegalTeam@hansencx.com
Location for Notices: Client	Attention: Email:
With a Copy to:	Office of the City Attorney, City of Kingsport

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	415 Broad Street
	Kingsport, TN
	37660
	Email:
	bartrowlett@king
	sporttn.gov

Support Contact Details

The following are the details for accessing support for the Software Service.

Hansen contacts:

Name	Title	Contact Details
Jennifer Catalanatto	Hansen Account Manager	
Micah Frick	Hansen Delivery Manager	
Hansen Service Desk		bannerCISsupport@hansencx.com 1 (866) 251-3809

Client contacts:

Name	Title	Contact Details
Kristen Steach	Client Account Manager	kristensteach@kingsporttn.gov +xx xxx
		[Additional Client Contact Details]

APPENDIX I - INSURANCE

Hansen shall maintain the following insurance coverages:

1. Such insurance as will protect it from claims under Workers' Compensation Acts and from any claims for bodily injuries, including death, either to its employees or others, and from all claims on account of property damage, which may arise in connection from said work.

2. Insurance required with a minimum of One Million Dollars ($1,000,000.00) limits are:
   - General Liability
   - Automobile Liability

3. Technology Errors & Omissions Liability Coverage with a limit of liability not less than $5,000,000 per claim, $10,000,000 annual aggregate.

For policies written on a "Claims-Made" basis, the successful bidder must agree to maintain a Retroactive Date prior to or equal to the effective date of any resulting contract. In the event the policy is cancelled, non-renewed, switched to an Occurrence Form, retroactive date advanced, or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of any resulting contract, Hansen agrees to purchase a SERP with a minimum reporting period not less than two (2) years. The requirement to purchase a SERP shall not relieve Hansen of the obligation to provide replacement coverage.

General Liability and Automobile Liability insurance policies and certificates shall list the City of Kingsport, its officers, officials, agents, and employees as "Additional Insured".

All Certificates of insurance and policies shall contain the following clause: "The insurance covered by this Certificate will not be canceled or materially altered, except after thirty (30) days written notice has been received by the City of Kingsport."

All insurance coverages required shall be purchased and maintained with insurance companies lawfully authorized to do business in Tennessee. Coverages shall apply on a primary and non-contributory basis with any insurance and/or self-insurance maintained by City of Kingsport.

Schedule 2. Charges

1. Implementation Services Charge

   The Implementation Service Charge is as described in the Initial SOW.

2. Recurring Software Service Charge

Item	Product Description	Monthly Charge
Up to 40,000 Utility Accounts	Hansen CIS, Hansen Self Service Portal, Hansen Inventory Manager. Software as a Service fees payable monthly in advance.	Hansen CIS - $10,800 Portal - $1,500 Inventory Test - $1,500
Additional Utility Accounts	Software as a Service fees payable monthly in arrears based on Active Accounts provided by The City the first business day after month end.	Hansen CIS - $.25 per account Portal - $.08 per active account Inventory Test - $.05 per Test

The Recurring Software Service Charge becomes effective as of the Commencement Date.

Annual adjustment. In accordance with clause 10.5 of this Agreement, at least 4 months prior to the Adjustment Date, Hansen may provide Client with an updated fee schedule that will apply from the Adjustment Date.

3. Third Party Software Products

Hansen has no control over Third Party Software Products which may be subject to fee change, cancellation, discontinuation or specification change without prior notice to either Hansen or the Client by the provider(s). In the event of any change including (but not limited to) those outlined above, Hansen will promptly notify Client of any changes to the charges, and from when they shall apply.

Hansen will provide update and maintenance services of the Third-Party Software and Products.

4. Additional Services Charge / Standard Rates

The following Standard Rates shall be used by Hansen for the provision of Additional Services to the Client, unless the Parties agree in writing to perform the Additional Service for a fixed price. In accordance with clause 10.5 of this Agreement, at least 4 months prior to the Adjustment Date, Hansen may provide Client with updates to the rates that will apply from the Adjustment Date.

The Standard Rates are as follows:

Technical Services	Hourly Rate*
Help Desk Support	$200
System Maintenance	$200
Technical Consulting	$200
Software & Process Testing	$200
Project Management	$225
Business & Market Analysis	$200
Training and documentation	$225
Solution Development	$200
Solution Architecture	$200

*All rates are exclusive of taxes, travel, accommodation, and reasonable out of pocket expenses incurred for work performed on the Client's premises. The rates that appear in the table above apply to the first year of this Agreement. Thereafter, all rates are subject to an annual increase of the greater of 5% or CPI meaning the current percentage increase in the United States consumer price index (all items: CPI-U) as published by the Bureau of Labor Statistics in respect to the preceding twelve (12) month period.

Hansen must provide to the Client, attached to each tax invoice, a copy of substantiating evidence of each expense claim.

5. Terms of Payment

All Charges are invoiced monthly. Payment by the Client shall be made within thirty (30) days from when the invoice is received by the Client. All payments shall be made to Hansen at its address as notified in writing by Hansen to the Client or made directly to a nominated Hansen bank account.

Schedule 3. Change Control Procedures

1. General.

1.1. The Parties will use this Change Control Procedure for variations to:

(a)   Charges, other than those variations to charges as set out in 10.5 and Schedule 2;

(b)   Services, or where the Client wishes to obtain Additional Services;

(c)   any other procedures Hansen is obligated to provide under this Agreement.

1.2. The Parties will act in good faith and reasonably with respect to this process.

2. Change Request.

2.1. The Client may request (either itself or following a suggestion made by Hansen) that:

(a)   a change be made to a Product or Service being provided by Hansen, or otherwise to this Agreement;

(b)   Hansen develop an enhancement to the Product; or

(c)   Hansen provide an Additional Service.

   each a Change Request

2.2. Hansen will keep a log of all such Change Requests the Client submits to Hansen. Hansen will maintain this log, showing the status of each Change Request from its generation to final closure. Hansen will make this log available to Client at its request.

2.3. The Client and Hansen must determine by mutual agreement in good faith a priority level for each Change Request to be dealt with.

3. Quote and Impact Analysis

3.1. Subject to clause 3.2 of this Schedule 3, Hansen will conduct a high-level impact analysis of each Change Request at its own cost. Hansen will provide Client with an order of magnitude ("OOM") in relation to this Change Request within the time agreed between the Parties when the Change Request is submitted.

3.2. If the Client wishes for Hansen to provide a detailed Quote for the Change Request, (which includes analysis, functional documentation, and, where applicable, a draft SOW) (a "Detailed Quote"), Hansen will do so once the Client has approved the request in writing.

3.3. Where requested as above, Hansen will provide the Client with a Detailed Quote including:

(a)   the charges for performing the requested services as set out in the Change Request;

(b)   an impact analysis report including an impact assessment of any impacts the Change Request will have on other activities; and

(c)   where the Detailed Quote involves the provision of an Additional Service, or where the Parties otherwise agree, a draft SOW.

3.4. It will then be the decision of the Client whether to approve the Detailed Quote.

3.5. Hansen must not commence any work to deliver the Change Request relating to a Detailed Quote until the Client has approved the Detailed Quote in writing (which, in the case of an Additional Service, or where the Parties have otherwise agreed that a draft SOW will be prepared, will only occur when the Parties have executed the SOW).

4.   Undertaking the Change Request.

4.1. When the Client has approved a Detailed Quote in accordance with section 3.5 above, Hansen will perform the relevant services in accordance with the Detailed Quote and this Agreement (including, where applicable, in accordance with the SOW)

4.2. Any replacement for, or alteration, Update, upgrade or enhancement to, the Product as a result of a Change Request implemented in accordance with this Schedule 3 will form part of the Product governed by this Agreement.

Schedule 4. Services - SOFTWARE AS A SERVICE OPERATIONS

From the Commencement Date, provided that Client has paid all applicable Charges set forth in Schedule 2, Hansen shall provide the following services:

1. Overview

This Addendum provides details on the activities required from a SaaS operations perspective for Hansen CIS, Hansen Self Service Portal and Hansen Inventory Test in a software as a service ("SaaS") deployment model. It is intended to provide details, not only on the tasks that need to be performed in a business as usual or operational state, but also to outline the responsibilities of Hansen and the Client to ensure a successful ongoing operational relationship.

The timeline for the start of these operational services estimated to commence one month prior to go-live , to evaluate go-live readiness and to plan for the transition to SaaS Operations. There will be a heightened support time period after go-live in which the Hansen project team will be the primary points of contact, transitioning to the Hansen SaaS operations team by the end of that time period.

The services outlined in this document will be reviewed on an annual basis and are subject to change to ensure services provided remain in line with this Addendum.

2. Scope of SaaS Operational Services

2.1 Operational Management

As part of the SaaS Operational Services Hansen provides the:

ID	Scope
IOS01	Infrastructure • Maintain and administer hardware/server infrastructure, troubleshoot and support hardware/server infrastructure, manage utilization and capacity of hardware/servers according to reasonable standards. • Maintain and administer server Operating System (OS) configuration, maintain level of Operating System components (e.g., patches, service packs, upgrades). • Troubleshoot and support server OS. Maintain and administer software/application configuration, maintain level of software/application with current, new, and updated components (e.g., patches, service packs, upgrades) according to reasonable standards. • Troubleshoot and support software/application. • Hansen provides an outbound data transfer cap of one (1) terabyte. Any data above this cap will be billed monthly to the Client. • Hansen provides an environment with a disk storage cap of one (1) terabyte for Production. Any data storage above this cap will be billed monthly to the Client. • Hansen provides an environment with a disk storage cap of one (1) terabyte for Non-Production. It is noted that, any data storage above this cap will be billed monthly to the Client.
IOS02	Network • Establish 24x7x365 connectivity of the Wide Area Network (WAN) • Establishment and management of a secure, client specific access to the Hansen application(s) and integrations. • Maintenance of the Hansen portion of any VPN connections between Hansen and the Client where applicable.

ID	Scope
IOS03	**Performance and Capacity** • Maintain capacity plan based on application metrics. (e.g., users, new apps, etc.). • Perform trend analysis as input to capacity forecasting. • Scale system as required to meet SLAs (service level agreements) as defined in Section 3. • Monitor online performance of all in-scope environments and take appropriate action to address performance issues. • Perform performance tuning. • Monitor, manage, and report system performance. • Monitor, manage, and report on the system availability. • Analyse performance related incidents to identify factors impacting performance. • Provide recommendations to improve system performance.
IOS04	**Database** • One (1) Production and one (1) Non-Production database is maintained. Additional temporary environments can be requested for additional fees agreed upon by Hansen and the Client. • Manage and administer the database environment. • Maintain, administer, troubleshoot, and support the database and object configuration. • Receive and evaluate manufacturer provided DBMS patches, updates, upgrades, and prioritize as appropriate for implementation within documented time periods. • Perform database object and software tuning consistent with applications response time targets defined in Section 3, SLA08. • Provide a continuous update model for application patches/enhancements to eliminate need for major upgrades. • Perform database startup/shutdown procedures. • Maintain database on vendor supported versions during the contracted period. • Manage and monitor file maintenance requirements. • Perform database capacity planning. • Apply object updates. • Implement minor technology updates. • Provide system maintenance scheduling and coordination. • Perform periodic refreshes of the Non-Production Environments from the Production Environment to include all relevant object updates (e.g., data, applications, etc.) based upon an agreed upon schedule.

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ID	Scope
IOS05	**Application** • Document Change Control process with applicable approvals for any change promoted to production. • Apply code patches for application software. • Release planning and deployment is agreed upon between Hansen and Client (e.g., Dev, Prod.). • Hansen is responsible for applying all baseline code and all Production code deployment. Maintain currency of all baseline training related documentation with each new release. • Client specific documentation is the Client's responsibility. • Provision of a 24 x 7 mechanism for the logging of faults and queries. • Hansen will be responsible for the maintenance of User Interface related configurations.
IOS06	**Backup and Maintenance** • Storage of live data for five (5) years. • Schedule, perform and monitor full system backups daily and retain for 15 days. • Collect metrics: produce reports on backup timeliness, success rate, missed files, restore requests, and restore timing. Metrics can be provided upon request. • The defined maintenance window for the Production environment is once per quarter occurring on the 3rd Sunday of the month for a max of 8 hours. • The defined operating window for Non-Production databases is 7am – 7pm regional time.
IOS07	**Disaster Recovery** ▪ Perform data restore / data recovery once a year. ▪ Provide a continuous replication of system architecture in a geographically disparate disaster recover environment. ▪ Hansen will implement a DR policy that protects against loss or interference of any of the application data by taking backup copies of all system information, software, and system images necessary to recover the complete system in the event of a disaster and regularly testing restoration procedures to ensure backup arrangements meet Hansen's targeted recovery SLA as defined below: ▪ Production application and database servers are replicated in real-time allowing for near zero (up to max 1 hour) data loss (RPO) ▪ Targeted recovery time: 8 hours (RTO)

ID	Scope
IOS08	Security • Implement security administration requests in accordance with approved client processes. • Provide overall application security, maintenance, and administration. • Maintain and support firewall subsystem software components (e.g., patches and software upgrades). • Hansen requires all 3rd party payment vendors to be maintain PCI-DSS (Payment Card Industry) compliance. • Manage environments using MSOC (Managed Security Operations Centre) & Firewalls.
IOS09	Operational Oversight • Hansen will provide operational oversight and serve as the escalation point for operational issues. • Hansen Service Desk platform will serve as the system if record for operational tasks to be performed by Hansen or by the Client.

2.2 Continuous Monitoring Services

Hansen provides 24x7x365 continuous monitoring of SaaS infrastructure. The following table outlines the areas of the solution that will be monitored.

ID	Scope
IMS01	Network • 24x7x365 monitoring of the Wide Area Network (WAN) Notification to designated client representative(s) of service interruption.
IMS02	Security Monitoring • Report security incidents that impact the client and other vendors whose services are provided in the same operating environment as the services provided in this Addendum. • Monitor virus/security alerts and vulnerabilities from manufacturers and determine appropriate action per procedure.
IMS03	Application Monitoring • Hansen monitors the CIS application, Hansen Integration Framework, Hansen Self Service Portal, and Hansen Inventory Tester Portal for CPU, memory, and disk performance.

ID	Scope
IMS04	Batch Monitoring • The execution of the daily batch to ensure completion of each step and the overall completion occurs before the start of business the next day. This includes the completion of each job (programs and Interfaces as well as any scripts). • Management is done through Hansen CIS's Batch Scheduler (interface/file delivery, batch processing completion and report availability). • Hansen monitors and provides documented report of any incidents.
IMS05	Monitoring Oversight • Hansen provides monitoring oversight and serve as the escalation point for monitoring related issues. • Hansen Service Desk platform serves as the system if record for monitoring tasks to be performed by Hansen or by the Client.

2.3 Customer Support Services

Hansen provides the following SaaS customer support services.

ID	Scope
ICS01	Issue Management • Hansen Service Desk platform serves as the system of record for recording and tracking application and infrastructure related issues. • Hansen addresses tickets based on their Severity Level • Hansen performs triage on any reported issues to determine root cause • Hansen determines an appropriate resolution to reported issues and provide a release plan to provide correction to Client for testing. • Hansen internally verifies the resolution to the reported issues in a "base configured" internal environment. • Hansen deploys corrections to a Non-Production Environment in accordance with the Update Management process. • Hansen deploys the correction in the Non-Production Environment prior to informing Client that the environment has been updated. • Once Hansen receives approval, Hansen will deploy the correction to the Production Environment. • Hansen provides deployment verifications after the Non-Production or Production Environments have been updated.

ID	Scope
ICS02	Operations Management • Hansen Service Desk platform serves as the system of record for recording and tracking application as well as infrastructure related Operations tasks. • Hansen and Client will agree on a set of Operational tasks to be performed on a regularly agreed upon schedule. • Request for additional Operations tasks will be reviewed by Hansen to determine proper ownership and timing. • Hansen confirms the completion of each Operational tasks through the Hansen Service Desk platform. • Hansen liaisons with the Client's nominated staff in relation to Operations management.
ICS03	Update Management • Critical issues resolutions are immediately applied to production outside of the update management process. • Hansen notifies the Client of the monthly defect release schedule. This monthly release will include defect corrections made to the system and will be scheduled monthly on an as-needed basis. • Hansen notifies the Client of the quarterly release schedule. The quarterly release will include product enhancement along with prior monthly defect correction releases. • Hansen provides Release Notes with each monthly and quarterly release. • Hansen deploys updates to a Non-Production Environment and perform deployment verifications prior to turning the Non-Production Environment over to Client for acceptance. • Once Client approves change to be applied to Production, Hansen will deploy update to Production and perform deployment verifications prior to turning the Production Environment over to Client for acceptance.
ICS04	Customer Support Services Oversight • Hansen provides monitoring oversight and serve as the escalation point for Customer Support Services related issues. • Hansen Service Desk platform serves as the system if record for Customer Support Services tasks to be performed by Hansen or by the Client.

2.4 Annual Services

The following annual services are included as part of SaaS Operational Services:

ID	Scope
IAS01	Disaster Recovery Test • Conduct annual testing of the Disaster Recovery (DR) solution and provide detailed results. • Switch over to a DR environment when a DR event is called. A DR Event will be called, with prior consultation and written approval by the Client. • DR Recovery Time Objective (RTO) of 4 hours, and DR Recovery Point Objective (RPO) of near zero data loss up to 1 hour.
IAS02	Penetration Test • Hansen performs an annual penetration test on either a similar environment as the Client (same architecture and application version) or on the Client's environment. • Penetration test will be performed by 3rd party and results of test will be shared with Client once Hansen has reviewed and determine any actions needed to address identified deficiencies.
IAS03	Annual Services Oversight • Hansen provides annual service oversight and serve as the escalation point for annual service-related issues. • Hansen Service Desk platform serves as the system if record for Annual service tasks to be performed by Hansen or by the Client.

2.5 Client Responsibilities

ID	Scope
CR01	**Applications Management** • Client is responsible for the ongoing management of Hansen CIS and supporting modules configurations. • Client is responsible for end user application security management (i.e.: moves, adds, changes, and deletions) through Hansen CIS. • Client is responsible for all reporting activities that occur in the Non-Production Environment. • Client will provide on-going functional training for current and new users. • Client is responsible for setting up and maintaining the batch schedule. • Client is responsible for financial processing, including end of year reporting and system balancing.
CR02	**Network Management** • Maintenance of the Client portion of any VPN connections between Hansen and the Client. • Client will be responsible for all required networks from point of demarcation.
CR03	**Update Management** • Client will be responsible for acceptance of changes applied to Non-Production and Production as part of the monthly and quarterly update process. • Timing of monthly and quarterly updates will be agreed to and rescheduling of updates will only be on an exception basis. • Acceptance of updates will be performed by the Client within 5 business days, or an agreed upon timeframe, to avoid unnecessary delays in applying updates.

CS04	**Issue Management**
	• Client is the first line of support of issues using existing knowledge base.
	• Client will make the determination to escalate and submit issues to Hansen via the Hansen Service Desk.
	• Client is responsible for logging all issues in Hansen Service Desk platform.
	• Client is responsible for providing detailed information on all issues submitted to Hansen. This includes, but not limited to:
	    o Point of contact
	    o Detailed steps to recreate an issue.
	    o Any informative screenshots of the issue.
	    o Environment where issue resides.
	    o Business impact or critical path affected.

ID	Scope
CS05	Operations Management • Client is responsible for logging all Operations Management request in Hansen Service Desk platform. • Client is required to provide timely feedback on issues or Operational Management questions.
CS06	Billing Data Accuracy • Client is responsible for the accuracy of all outbound communications initiating from Hansen CIS. This includes all bills, reports, and customer communications.

2.6 Out of Scope

Anything not specifically detailed as in scope shall be considered out of scope in regard to SaaS Operational Services. For clarity, the table below describes the scope of work that will not be provided:

ID	Scope Exclusions
EXC01	The correction of issues that reside within a 3rd party application. Hansen will track 3rd party issues within the Jira platform but the responsibility for addressing issues is with the 3rd party.
EXC02	Hardware that is no longer supported by its manufacturer.
EXC03	Operating systems or versions of operating systems that are no longer supported or updated by their authors.
EXC04	Errors resulting from product misuse, negligence, or improper utilization of any part of the Software or Services.
EXC05	Issues arising from electrical failures, internet connection problems, or data issues deemed to be under the Client's exclusive control and responsibility, including but not limited to data input and output, which are outside the scope of this Addendum.

3. Service Level Agreements (SLAs)

The table below outlines the Service Level Agreements that are provided by Hansen related to SaaS Operational Services. In the event an assumption proves to be incorrect or requires changing, Hansen will continue to provide the services described under this Addendum, but the parties will meet and will follow the agreed change management process to ensure that the scope and assumptions are updated.

ID	Description

SLA01	Issue Management
	
	Severity 1
	
	Criteria:
	  ▪ Production Environment is down.
	  ▪ The application is non-operational, and no users can access the system.
	Requirements:
	  • Applicable to Hansen CIS only
	  • Production Environment only
	  • A client representative must be available until resolution.
	  • Immediate system update is approved.
	Response Target: 1 Hour
	  • 24x7 response window
	  • A response acknowledging the issue has been received.
	  • Assignment of the issue has been coordinated.
	Communication:
	  ▪ Hourly updates are provided to the client point of contact via email.
	Resolution Target: <4 Hours
	A Severity 1 defect will be considered resolved where one of the following conditions are met:
	  ▪ The Hansen CIS system is operational and fully accessible to the Client
	  ▪ Providing a workaround leading to the reclassification of the severity
	  ▪ Reclassification of the issue severity
	
	Deployment:
	  ▪ Immediately upon resolution

ID	Description
SLA02	**Issue Management**
	Severity 2 - Hot Fix
	<u>Criteria:</u>
	■ Critical Business Impact with no alternative.
	■ Important System features are unavailable with no feasible workaround
	■ Framework issues due to security
	■ Framework issues leading to severe degradation of performance outside SLA08
	<u>Requirements:</u>
	• Applicable to Hansen CIS only
	• Production Environment only
	• A client representative must be available until resolution.
	• Immediate system update is approved.
	<u>Response Target</u>: 2 Hours
	• 24x7 response window
	• A response acknowledging the issue has been received.
	• Assignment of the issue has been coordinated.
	<u>Communication:</u>
	■ Routine status updates are provided in the associated ticket via the Hansen Service Desk application.
	<u>Resolution Target:</u> 24 Hours
	A Severity 2 Hot Fix issue will be considered resolved where one of the following conditions are met:
	■ Closing the incident following provision of an agreed upon resolution.
	■ Providing a workaround leading to a re-classification of the severity.
	■ Reclassifying as a lower-level severity.
	■ Continuing to provide support until a resolution is found
	<u>Deployment:</u>
	■ Immediately upon resolution

ID	Description
SLA02	**Issue Management** <u>Severity 2</u> <u>Criteria:</u> ▪ The Software is operational with functional limitations or restrictions. ▪ There is a serious impact on the Client's productivity. <u>Response Target:</u> 2 Hours ▪ Standard business hours ▪ A response acknowledging the issue has been received. ▪ Assignment of the issue has been coordinated. <u>Communication:</u> ▪ Routine status updates are provided in the associated ticket via the Hansen Service Desk application. <u>Resolution Target:</u> 5 Business Days A Severity 2 defect will be considered resolved where one of the following conditions are met: ▪ Closing the incident following provision of an agreed upon resolution. ▪ Closing the incident due to being unable to reproduce the problem. ▪ Closing the incident due to it being not covered by this Addendum. ▪ Providing a workaround leading to a re-classification of the severity. ▪ Reclassifying as a lower-level severity. ▪ Continuing to provide support until a resolution is found. <u>Deployment:</u> ▪ Immediately upon resolution ▪ Next patch release

ID	Description
SLA03	**Issue Management**

Severity 3

Criteria:

- The Software is operational with functional limitations or restrictions that have a moderate impact on the functionality of the application.
- The application remains usable by all groups.
- A defect exists for which there is an acceptable workaround.
- No significant delays in production.

Response Target: 4 Hours

- A response acknowledging the issue has been received.
- Assignment of the issue has been coordinated.

Communication:

- Routine status updates are provided in the associated ticket via the Jira Service Desk application.

Resolution Target: Standard Release Schedule

A Severity 3 defect will be considered resolved where one of the following conditions are met:

- Closing the incident following provision of a resolution.
- Closing the incident due to being unable to reproduce the problem.
- Closing the incident due to it being not covered by this Addendum.
- Closing the incident as being corrected in a future Release of the Product.

Deployment:

- Standard Release Schedule

ID	Description
SLA04	**Issue Management** Severity 4 Criteria: • The application is operational with the issue having little or no impact on system operations. • Includes documentation errors or defects of a minor or cosmetic nature. • No significant delays in production. Response Target: 8 Hours • A response acknowledging the issue has been received. • Assignment of the issue has been coordinated. Communication: • Routine status updates are provided in the associated ticket via the Jira Service Desk application. Resolution Target: Standard Release Schedule A Severity 4 issue will be considered resolved where one of the following conditions are met: • Closing the issue following provision of a resolution. • Closing the issue due to being unable to reproduce the problem. • Closing the issue due to it being not covered by this Agreement. • Closing the issue as being corrected in a future Release of the Product. Deployment: • Standard Release Schedule
SLA05	Operations Management Percent of requests initiated by Client and sent to Hansen that are completed within 8 business hours. Target: 95%

ID	Description
SLA06	Systems Availability The Hansen CIS application will remain available, excluding: • Scheduled maintenance • Mandatory system updates This will be measured by the number of minutes in the monthly period minus exclusion time, divided by the total number of minutes in the reporting period. Calculation: ((total-exclusion)/total)) *100 = Target% Target: 99.5%
SLA07	Update Management Measurement of time between when Client approves an update being applied to Non-Production or Production and when Hansen returns the environment to Client for verification. Target Non-Production: 2 Business Days Target Production: 2 business hours; maintenance window; or agreed upon schedule

ID	Description
SLA08	**Application Response Time** <u>Metric Definitions</u> Update Transaction ▪ Any transaction made via the Hansen CIS application that modifies existing records within the database Query Transaction ▪ A query transaction is a selection of data via the Hansen CIS application utilizing a defined index. <u>Metric Targets</u> ▪ Achieve an average of 90% of all Update Transactions in under 2 seconds during peak usage. ▪ Achieve an average of 99% of all Update Transactions in under 5 seconds during peak usage. ▪ Achieve 100% of single screen Query Transactions in under 2 seconds during peak usage. <u>Metric Verification</u> ▪ All metric targets will be verified from a demarcation point external to The City's private network and within the designated hosted region. This ensures that the verification processes are conducted within a consistent and controlled environment. Additionally, the verification will include potential network latency to ensure accuracy and reliability of the metrics.

4. Delivery Management Issue Review

Hansen will conduct a review of the open issues when the number of open issues exceeds ten (10) unresolved issue of Severity 2-4. This review will be scheduled and conducted by the Support Manager or the Delivery Manager assigned to the Client.

5. Service Level Agreement Annual Review

Hansen will review the Service Level Agreement performance annually or on a periodic basis as agreed upon by both parties. The review will be led by the Delivery and Account Manager and shall include:

- Discussion and resolution of any issues that may arise under an SLA;

- Service delivery since last review;

- Major deviations from service targets;

- Negotiation of proposed changes to the SLA; and

- Resolve concerns about service delivery.

The review mechanism includes an escalation procedure under which any unresolved issues are escalated for immediate resolution. Disagreements shall initially be handled by means of following escalation provision detailed in section 6.

6. Escalation

In the unlikely event the Client needs to escalate an issue beyond the Support Analyst, the escalation path is as follows:

- Support Analyst

- Support Manager

- Manager of Service Delivery

- Account Manager

- General Manager

7. Post Incident Report Process

The following are Issues that trigger a Lessons Learned review:

- Severity 1 issue

- Missed SLA

The Hansen Issue Lessons Learned process includes the following:

- Root cause analysis

- Triage through issue resolution review

- Timeline of significant activity

- Lessons learned and next steps

- Post-incident report delivered to the Client

8. Technical Service Bulletins

Technical Specification Bulletins (TSB) provide notification of detailed technical information, guidelines, and requirements necessary for the proper installation, configuration, security, and operation of the Hansen CIS applications. Hansen will directly notify the client point of contact of any relevant TSBs released. The TSB will also reside on the Hansen CIS Connect Community (HC3) website.

TSB Examples:

- Security vulnerabilities

- Performance Degradation

- Cross Platform Impacts

TSB contents:

- Description

- Impacted Applications

- Related Issues

- Impact Determination

- Immediate Resolution

- Permanent Resolution

- Settings/Configurations

9. Support Hours

Hansen standard business hours are from 8:00 a.m. to 5:30 p.m. Eastern Time, Monday through Friday (excluding Holidays) for responding and reviewing all issues. Severity 1 and Severity 2 Hot Fix issues are still responded/resolved outside of standard support hours for no additional fees.

After-hours, on-call support for is available upon request and will be billed at then current rates.

10.   Holidays

Response to requests other than Severity 1 may be delayed up to 24 hours during holidays observed by Hansen as outlined below:

US Holiday	Approximate Date
New Years Day	January 1
President's Day	Third Monday in February
Memorial Day	Last Monday of May
Independence Day	July 4
Labor Day	First Monday in September
Thanksgiving Day	Fourth Thursday in November
Day After Thanksgiving	Fourth Friday in November
Christmas Eve	December 24
Christmas Day	December 25
New Years' Eve	December 31

*If a holiday falls on a weekend, it will be observed the following Monday.

11.   Definitions

All capitalized terms used and not defined herein shall have meanings given to them in the Addendum

(a)   "Business Days" means the calendar days of Monday, Tuesday, Wednesday, Thursday, and Friday, excluding weekends and federal holidays.

(b)   "Production Environment" is the live, operational setting where the actual data and applications are used by end users. This is the instance where real time data is present and is considered the Client's production environment.

(c)   "Non-Production Environment" is used for activities other than live, day-to-day operations. It includes activities such as reporting, testing, staging, and QA (Quality Assurance).

(d)   "SLA" means Service Level Agreement.

(e)   "Severity 1" means a critical system down issue that causes all live system processing to stop or causes a loss or corruption of the City's data which seriously threatens to prevent time-critical business processes from being performed in time by the City.

(f)   "Severity 2" means a serious issue that affects most users or materially disrupts the City's time-critical business processes.

(g)   "Severity 3" means a difficult but workable issue which may have a material impact on some users but does not disrupt any of the City's time-critical business processes.

(h)   "Severity 4" means an issue that has no major impact.

(i)   "RPO" means Recovery Point Objective. This is the maximum amount of time that data can be restored from, which may or may not result in data loss.

(j)   "RTO" means Recovery Time Objective. This is the maximum amount of time it takes to recover after an outage and resume operations.

Schedule 5. Initial SOW

See Attached:

Version 3

City of Kingsport
Statement of Work

Hansen CIS Implementation
Hansen CIS Reference ID | BSOW-337

HANSEN

Version 3

City of Kingsport Statement of Work

Hansen CIS Implementation
Hansen CIS Reference ID | BSOW-337

Contents

1 Introduction and Overview

This Statement of Work ("SOW") between the City of Kingsport ("the City") whose registered office is at 415 Broad Street, Kingsport, Tennessee, 37660 and Hansen Banner, LLC whose primary place of business is 700 Gervais Street, Suite 100, Columbia, SC 29210 ("Hansen") describes the respective obligations of the Parties for services to be provided by Hansen as described in this SOW (the "Services") and is entered into pursuant to the Software Service Agreement entered into between the parties with an effective date of _____, 2024 (the "Agreement").

This SOW provides details on the activities required to implement Hansen CIS, Hansen Self Service Portal and Hansen Inventory Test in a software as a service ("SaaS") deployment model over a Fifteen (15) - month time period, with Three (3) months of post Go-live support. It is intended to provide details, not only on the tasks that need to be performed, but also to outline the responsibilities of Hansen and the City of Kingsport to ensure a successful implementation.

The timeline of this implementation project is estimated to commence on October 1, 2024 (project kickoff) and continue until 15 months later December 8, 2025 (go-live). There will be a Three (3) month heightened support time period after go-live. An initial project schedule has been provided and will be updated and finalized as part of the Project Initiation.

September 2024

2   Guiding Principles

To stay on time and on budget the parties agree to the following guiding principles:

ID	Description
GP01	BASE FIRST approach. The City of Kingsport will utilize the base functionality of Hansen CIS and not require Modifications to the core application capabilities. Hansen will assist the City to map their business processes to base utilizing base features and functions (e.g., configurations, extensions, and business process re-engineering) where needed.
GP02	Proper staffing of implementation project. City of Kingsport will have their subject matter experts available for tasks outlined in this SOW. The City of Kingsport recognizes that without access to key personnel, the timing of activities will be impacted which could result in change in project timeline and cost. See Section 9.2 Key Personnel.
GP03	Quick decisions. Decisions will be made in a timely fashion with a standard goal of (5) five Business Days. Any decision that requires additional time, must be mutually agreed to by all parties.
GP04	Work Collaboratively. Hansen and the City of Kingsport commit to working in a collaborative manner and view this project as a partnership rather than a traditional vendor / the City relationship.

3 In Project Application Update Process

When a quarterly release is made available, the joint Hansen / Kingsport project team will determine at their discretion if that release will be accepted by the project team and implemented in the project environments. A general rule is that if the release is available prior to User Acceptance Testing, it should be implemented, but that decision is left to the project team. Any releases not accepted by the project team will be scheduled for implementation after the heightened support period and then according to the regular release schedule.

4 Scope of Work

4.1 In Scope

.	Scope	Deliverables
ISC01	Project Initiation – Hansen will prepare project documentation, working with the City Project Manager to finalize the initial project schedule and associated staffing plan, set up project accounting and reporting procedures, develop technical environment plans, and conduct a project planning review meeting with the City management. This phase of the project will culminate with the Project Kick-off meeting led by the Hansen project team in conjunction with the City Project Manager. Completion Criteria This scope item is deemed complete when the Deliverables are completed by Hansen, delivered to the City, and mutually approved by both parties. The City will follow the acceptance process as defined in Section 5.2 Acceptance Criteria • Project Plan Developed, Delivered, Reviewed and Approved by both Hansen and the City Project Managers • Project Team Contact List Created, Delivered, Reviewed and Approved by both Hansen and the City Project Managers • Approved Project Team Information Distributed to the project team. • Kick-Off Presentation Created, Reviewed and approved by both Hansen and the City Project Managers • Hansen led Kick-Off Meeting execution (with the City Support/Participation for content and presentation) • Training Needs Questionnaire Assessment completed by the City, reviewed by Hansen Trainer, and approved by the City and Hansen Project Managers	• Project Plan Developed and Approved • Project Team Confirmed and Contact Information Distributed Responsible • Kick-Off Preparation and Meeting Responsible • Training Needs Questionnaire Assessment Acceptance Type: Document

.	Scope	Deliverables
ISC02	Target Release Installs – Hansen will install, configure, and verify up to three (3) instances of the Baseline Component System of Hansen CIS, Hansen Self Service Portal (HSSP), Hansen Inventory Test (HIT), Hansen Integration Framework (HIF) and Hansen Business Intelligence (HBI) as (2) non-Production and (1) Production. Non-Production Environments (Usage) • Training • Workshops • Rules and Validations (R&V) • Integration /Configuration testing prior to UAT Non-Production Development Environment (Usage) • Integration Development and Unit Testing • UI Configuration/Extensions/Rules and Validations Development • Quality Verification Test Production Environment (Usage) • Data Conversion • System Integration Test (SIT) of configurations/integrations/Rules and Validations • User Acceptance Testing • Mock Go-Live • Go-Live Completion Criteria: This scope item is complete when Hansen completes the initial configuration of each environment, and verifies all components (Core, HBI, HIF, HSSP, HIT) have been configured. The City must be able to verify (log into) each system.	• Confirmation that environments are complete and available for the City usage • Environment(s) verified by Hansen QA resource • Confirmation that environments are complete and available for the City usage • Login information (urls, login credentials, etc). Acceptance Type: Software

.	Scope	Deliverables

ISC03	Application Prep and Training – Hansen will lead application core team training sessions and technical overview training sessions on the City site, covering the necessary application and technical training topics for Hansen CIS, Hansen Self Service Portal (HSSP) and Hansen Inventory Test (HIT).
	
	CIS Application Core Team Training
	
	    • Hansen CIS Core Team Application training:
	    • Class size not to exceed 15 users.
	
	HSSP Core Team Training
	
	    • HSSP Core Team training:
	    • Class size not to exceed 15 users.
	
	HIT Core Team Training
	
	    • HIT Core Team training:
	    • Class size not to exceed 15 users.
	
	Hansen CIS Technical Overview Training
	
	    • Class size not to exceed 15 users.
	    • Technical overview training includes the following components.
	        ○ Hansen Integration Framework (HIF)
	        ○ Hansen Business Intelligence (HBI)
	        ○ Auditing
	        ○ Security
	
	Completion Criteria: This scope item is complete when each training session is complete based on the standard agendas and completed exams have met mutually agreed upon proficiency. All system gaps identified during these sessions that cannot utilize the baseline application will be recorded for further evaluation.
		• Agendas and training materials provided by Hansen for each session
		• System Gap documentation / tracking
		• Attendance signoffs
		• Exam results
		
		Acceptance Type: Document

ISC04	Configuration Workshops and Consulting – Hansen will conduct an onsite Rules and Validations (R&V) Configuration Workshop and User Interface Configuration Workshop to assist in defining and recording the City's initial configuration. These workshops will allow the City to review Hansen CIS standard configuration and to identify areas requiring configuration changes based on the City's business requirements.	• Agendas for each workshop • Output document for each workshop • Initial version of Configuration workbook • Consulting post workshops
	Hansen will itemize requested changes resulting from the workshops and return a finalized configuration change listing.	
	Standard Workshops included are:	Acceptance Type: Document
	• Baseline Business Process Mapping Workshop/Consulting	
	o This workshop will map customer business processes to the baseline system utilizing information documented during application training.	
	• Rules and Validation Workshop/Consulting	
	o This workshop will document Rules and Validations not defined during Application training and/or Baseline Business Process Mapping Workshop.	
	• Rate Configuration Workshop/Consulting	
	o This workshop will assist the customer in defining the required rate structure for a subset of the customer's billing rates.	
	• Batch Scheduling Workshop/Consulting	
	o This workshop will define the sequence, timing and dependencies of all CIS jobs that are to be scheduled for automatic execution.	
	• UI Configuration Workshops/Consulting	
	o Hansen will implement the initial configuration of Hansen CIS and will be responsible for maintaining (update, add, delete) configuration during the implementation project.	
	• Hansen Inventory Test Workshop/Consulting	
	o This workshop will define the configuration requirements, user access and workflows.	
	Completion Criteria: During each of the workshops, the Hansen Business Analyst will build off the previous trainings and produce as output of each workshop itemized configuration changes, implement agreed-upon configuration changes, and return a finalized configuration change listing from each workshop inclusive of acceptance criteria. These	

.	Scope	Deliverables
	approved documents will be used to load the configurations into the environments for verification and approval by the City. These documents will be living documents that will be refined through the implementation based on learned and best practices. These documents will be electronically approved (e.g., email confirmation) by the City of Kingsport.	

.	Scope	Deliverables
ISC05	Organizational Change Management (OCM) Workshop, OCM Support, and Standard Operating Procedures Development – Hansen's OCM partner will conduct a 2-day workshop to begin the structured change approach needed to identify stakeholders and related change impacts, communications, and training needs that align with Hansen CIS base functionality. The output of this workshop will be a defined change strategy that helps align all stakeholders to the anticipated future state. By establishing change interventions and a clear implementation timeline, teams can gather leadership support and stakeholder buy-in to motivate those involved, resulting in a much higher probability of project success and adoption. The City will provide an OCM Lead to execute the plans and establish a Change Ambassador Network comprised of select leaders in key departments to lead change, deliver messaging and provide feedback to the OCM team, and assess readiness. This workshop will cover how the following areas will be used to drive the change management goals. • Stakeholder Engagement • Leadership Alignment • Communications • Training • Adoption and Sustainment (Includes Change Ambassador Network). Hansen will provide training material covering the standard operating procedures for all functional modules of the system. These guides will be leveraged to produce the City of Kingsport-tailored quick reference guides based on their use of the system. Hansen, with the City, will develop and deliver City of Kingsport Standard Operating Procedures as either documents or interactive training modules, both stored on Hansen's LMS. The following deliverables have been identified for Standard Operating Procedure development. • Standard Operating Procedures Plan • Standard Operating Procedures documents or interactive training modules, accessible from Hansen LMS. Completion Criteria: This scope item is complete when the workshop is complete, such that the City has a working knowledge of stakeholders and change impacts. The City and Hansen will jointly develop and execute the following plans. These plans will be living documents throughout the project and maintained by the OCM resource for updates, distribution, and the City approval.	Hansen will asset the City in developing the following deliverables. • Change Management Plan • Communications and Stakeholder Plan • Training Plan • Adoption and Sustainment Plan • Standard Operating Procedures Plan Hansen will be responsible for the following deliverable. • Standard Operating Procedures documents or interactive training modules, accessible from Hansen LMS Acceptance Type: Document

ISC06	Legacy Data Conversion (Pre-UAT) – Hansen will perform a joint mapping workshop with a core team of the City's subject matter experts of their current legacy data to convert up to 3 years of account history and all open Accounts Receivable data. Hansen will develop a Conversion Mapping Document, which includes Validations and checks as well as well Data Conversion Plan for review, updates, refinements, and approval. The output of this effort will produce a report providing details on the mapping of legacy data into Hansen CIS for delivery and initial approval to the City. The City will be responsible for the review and approval of data mapping and the validation and approval of the results of each conversion run.
	
	Activities included as part of Pre-UAT data conversion are:
	• Conversion Target Conversion Environment
	• Conversion Mapping Workshop/Tool Development/Access to Legacy DB Copy
	• Conversion Pass 1,2 & 3
	   o The City review and notification of issues needing to be resolved prior to User Acceptance Testing
	• Conversion Pass 4
	   o Prep for User Acceptance Testing
	
	The City Responsibilities as part of the Legacy Data Conversion include the following.
	
	• Participation in the Conversion Workshop
	• Detail knowledge of Legacy data entities/elements/structures for participating in data mapping efforts
	• Creation of Legacy CIS data exports and cross references for Hansen conversion consumption
	• Identification and export of data from ancillary or external systems, e.g., TOKAY
	• Participation in issue analysis from the output of each of the conversions in order to assist Hansen in rectifying.
	• Participation with Hansen Conversion specialist in required data cleansing to minimize exceptions the Hansen CIS application.
	• Provision of cross-reference material for legacy rates to Hansen CIS rates.
	
	Data analytic output/dropouts will include but are not limited to
	• Data failures and anomalies
	• Data successfully converted.
	• Data stratification (e.g, Totals of service converted for every type, account receivables balances, account statistics)
	• Address parsing.
		• Conversion plan (document that contextualizes the conversion methodology written for the wider non-technical audience)
		
		• Conversion mapping document
		
		• Validation parameters
		
		• Validation report with each conversion
		
		Acceptance Type: Document

.	Scope	Deliverables
	Completion Criteria (for each pass of Conversion): After each conversion execution Hansen will produce a data conversion validation report that the City will review and sign off. The report will document any issues, concerns, clarifications, data mapping conflicts, data mapping successes, data conditions for resolution, or questions encountered regarding any data anomalies. This document will be jointly reviewed by the City SME(s), Hansen Conversion Specialist, and Business Analysts. This document will contain decisions documented for any changes that need to be implemented in each future conversion run. In addition, as part of the User Acceptance Test completion, the customer will acknowledge sign off on the data conversion validation report.	

ISC6.5	Legacy Data Conversion (Post-UAT)–
	
	Hasen will complete two successful Mock Go-Lives run in the same timeframe as Go-Live (over a weekend, 24/7 processing, off-hours sign-off) that ensures the entire conversion process can be performed without incident in the agreed upon timeframe. Success will be measured as no significant diversions from the conversion timing and cutover plan and successful validation of all conversion parameters within the planned timeframe.
	
	Activities included as part of post UAT Data Conversion are:
	• Conversion Pass 5
	  o Mock Go-Live #1
	• Conversion Pass 6
	  o Mock Go-Live #2
	• Conversion Pass 7
	  o Go-Live
		• Cutover plan
		• Validation parameters
		• Validation report with each conversion
		
		Acceptance Type: Document

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.	Scope	Deliverables
ISC07	UI Configuration, Implementation and Testing –Hansen will be responsible for updating and maintaining the UI configuration changes during the implementation project as part of the Configuration workbook output of this workshop. Examples of potential changes include field label changes, required vs. non-required fields, addition/removal of fields, and screen layout changes. A UI configuration document will be produced to document any changes for reference and maintainability. • Hansen will test configuration development before release to the City of Kingsport to confirm that it complies with the approved Configuration Workbook and acceptance criteria. • The City will review and provide approval of all UI configuration changes prior to Hansen's implementation of changes. Completion Criteria: This scope item is complete when the UI configuration changes have been delivered to the UAT/Production Environment and the City validates and confirms all identified UI configuration changes have been implemented per the approved Configuration Workbook.	• Configured UAT / Production environment with changes documented as part of the UI Configuration Workshop (ICS 03) Acceptance Type: Software

ISC08	Integration Workshops and Development – Hansen will conduct integration workshops to review the overall integration plan with the City of Kingsport core team and SME's. These workshops will review the required integrations, capture and determine an appropriate integration methodology and supporting technology to meet the City's integration requirements. This information will be documented as part of a Functional Design Document that will contain all the requirements, data mapping, and functional requirements to develop the integration successfully.	• Integration workshops • Functional Design Document for each interface • Quality Verification Test of each integration Acceptance Type: Document & Software

Interface Definition	Interface Description*
General Ledger (GL)	Two-way interface for updates to the GL
AMI/MDM	Two-way interface with the MDM (Harmony) and AMI (Allegro) allowing exchange of accurate customer and meter data, and device provision.
Banking Institutions	Two-way interfaces with various banks and financial institutions to process customers' payment and returned item files
Collection Agency	Two-way interface to send customer account information and receive payment information for customers.
Bill Print	Two-way interface to export bill print files to the City's bill print vendor's system and allow for bill images to be retrieved from the printer's file system.
IVR	Two-way interface with Selectron IVR system for customer account inquiry and payments. A one-way interface to the IVR system to provide outbound calling campaigns. A one-way interface to support a screen pop for CSR's.
Online and Credit card Payments	A two-way real-time interface to a payment processor allowing customers to pay their bills using E-check or credit cards. Integration will be with Hansen CIS and Hansen Self Service Portal.
ACH	A two-way interface to process ACH payments.
Asset Management	A two-way interface with Workforce and Asset Solution (OpenGov Asset Management)
Landfill	A two-way interface with the scale house (Scale Works) to exchange information regarding customer accounts.

	Central Cashiering	Two – way integration with a central cashiering solution to allow the City to collect payments for utility bills and other unrelated charges, such as taxes and parks and recreation fees.
	Credit Bureau	A two-way interface to verify customer's identity and credit risk.
	GIS	A two-way integration with the City's GIS systems.
	Active Directory	An integration with the City's Active Directory for authentication of users.
	Barcode Scanners	A one-way integration with barcode scanners to identify meter location and update status in CIS.
	Inventory Management	A one-way import with several manufacturers to automatically update inventory or meters, transmitters, garbage carts and other devices.
	Backflow Management	Hansen Inventory Test is included in the scope of this SOW and would eliminate the need for this integration.
	Outlook Email	An interface with the City's Outlook email service to facilitate the one-way (export) of generated emails.
	Permit Applications	A two-way interface to the permitting system for permit application status, information and for new premises creation and occupancy status.

*Interface requirements will be discussed and determined during the Integration Workshop.

Delivery Criteria to the City
- Hansen will lead Integrations Requirements Workshops to derive the requirements and understanding of the integrations listed above. As each integration requirement is documented, Hansen would identify them as base functions, configurations, or extensions.
- Each requirement is documented in a Functional Design Document (FDD) that consolidates the requirements into a logical grouping for architecture and the City review. Workshop notes, requirements documentation, diagrams, and estimates for each integration component will be provided for the City sign-off prior to development work starting. This document will go through the acceptance process as outlined in Section 5.2 Acceptance Criteria. Once this document has been approved by the City, development will begin.
- The Hansen Integration Framework (HIF) will be the standard integration method to reduce complexity and increase the supportability of integrations.
- Integration Development – For each integration,

.	Scope	Deliverables
	Hansen will design, code, unit test, create Test Stories and perform Test Story execution on the migrated system in the Development Environment. • Hansen will provide the necessary integration documentation required to understand and discuss each integration. Completion Criteria: This scope item is complete when the agreed-upon integrations have been defined and developed based on the defined criteria from the integration workshops and the associated Functional Design Document has been developed, reviewed, updated, and approved by the City.	
ISC8.5	Reporting – Hansen will conduct a Report Analysis and Creation session with the City as part of the HBI & Jaspersoft Technical Training. This training will provide an overview of analytical and warehousing concepts and all HBI content: role-based dashboards, graphs, KPI tiles, and reports. Additionally, where HBI content is accessed within HansenCIS as well as use of interactive dashboard filters, report parameters, and drill-downs to answer common business questions. As part of this session, the City will review with the Hansen technical resource the types of reports required for Go-Live. Hansen will work with the City resources to gather the reporting requirements in order to build out those reports and dashboards utilizing HBI and Jaspersoft. Completion Criteria: This scope item is complete when the agreed-upon reports have been defined and developed based on the defined criteria from the Report Analysis and Creation session with the City, and the associated reports Design Document has been developed, reviewed, updated, and approved by the City.	• Report Analysis and Creation Session with the City • Report/Dashboard analysis requirements output Acceptance Type: Software

ISC09	User Acceptance Testing (UAT) Support - Hansen will provide consulting services to assist the City in executing the City's acceptance test plan during the City's acceptance testing phase. The scope of UAT will include Hansen CIS, Hansen Self Service Portal and Hansen Inventory Test. This phase is scheduled for thirty (30) Business Days. Predecessors to the start of UAT include the following scope (ISC) items. - ISC02 - Target Release Installs - ISC03 - Application Training - ISC04 - Configuration Workshops and Consulting - ISC06 – Pre UAT -Legacy Data Conversion (Conversions 1,2,3,4) - ISC07 - UI Configuration, implementation, and Testing - ISC08 - Integration Workshops and Development Activities included are: - UAT Workshop – Hansen will conduct an onsite five (5) day workshop to provide an overview of developing or updating a UAT test plan, test case, and staffing. - UAT Artifacts Review/Follow-Up – Once the City has completed drafts of the UAT test plan, test cases, and staffing plan, these will be provided to Hansen for review. Hansen will provide feedback or recommendations on any potential improvements. - UAT Functional/Technical/QA Support – Hansen will provide 15 days of onsite support from functional, technical, and QA staff to help resolve questions and provide product knowledge and triage issues from UAT. The cadence will be one week on, one week off during the six (6) weeks UAT execution. UAT Test Assumptions - Hansen will provide standard business process test templates as a starting point for the City to develop a UAT plan. - The City, with Hansen's assistance, will customize the test template to reflect the City's specific business processes and both parties will finalize the UAT plan. - Any issues that arise will be documented by the City in the Hansen Jira system with detailed steps to recreate. - Corrections will be reviewed jointly for impact and risk assessment to determine whether they are required for acceptance or will be deferred until post-go live.	- UAT Workshop - UAT Artifacts Review/Follow-Up - User Acceptance Test Management - UAT Functional/Technical /QA Support Acceptance Type: Document

.	Scope	Deliverables
	• Upon receipt of corrections, the City shall perform such retests as necessary to determine whether the corrected defects have resolved the identified test(s), plus any reasonable level of regression testing. • If the UAT is not completed within the scheduled time frame, the City and Hansen will determine the root cause and amend the schedule accordingly based on agreed-upon severity. Such an amendment will be made via a change request unless mutually agreed upon. • In addition to UAT corrections, baseline application product changes released during the allotted UAT timeframe will be jointly assessed to determine the most advantageous and least risky time to apply to the City's environment. • Hansen will assist the City in the development of UAT test cases and will provide support during UAT. • Hansen will provide assistance and coordinate resources during UAT testing. • Hansen's support includes issue research and resolution, code adjustments, R&V setup and consultation, integrations testing support, production configuration support, data migration issues, and general project-related issues. Completion Criteria: This scope item is complete when: • All documented City test plans, and data verifications have been completed within the UAT allotted duration unless jointly agreed. • UAT will be conducted by the City in accordance with a mutually agreed UAT plan. UAT shall be deemed complete, and the mock go-lives described in ISC11 shall begin when no Severity 1 or 2 Issues exist from UAT unless mutually agreed workarounds exist.	

.	Scope	Deliverables
ISC9.5	Performance Verification Test – Hansen will support a one-day performance verification test which will be coordinated by the City and consist of multiple end users logging into Hansen CIS, HSSP and HIT to simulate a production end user load. Hansen will document results and determine what technical configuration changes are required to meet the following performance target. • Achieve an average of 90% of all update transactions in under 2 seconds over a 60-minute period defined as Peak Usage. • Achieve an average of 99% of all update transactions in under 5 seconds over a 60-minute period defined as Peak Usage. • Achieve 100% of single screen, indexed query transactions in under 2 seconds over a 60-minute period defined as Peak Usage. Completion Criteria: This scope item is complete when the performance criteria deliverable has been executed and validated by the City.	• Verification of the Performance Validation Test • Report of the results from the Performance Verification Test. • Planned action on any performance improvements necessary. Acceptance Type: Software
ISC10	End User Training - Hansen will administer 4 weeks of End User Training(s) As part of the included Heightened Training Package, the allocation and appropriation of participants and training content will be developed in a Planning/Developing End User Training Plan. .This plan will be created by Hansen with the City's input and approval. The End User Training schedule will follow the approved plan. Completion Criteria: This scope item is complete when the end users of Hansen CIS have shown proficiency for modules related to their role via a Hansen-provided proficiency exam or equivalent.	• Planning/Developing End User Training Plan • End User Training/Material Support (HTP) • End User Training Execution Acceptance Type: Document

.	Scope	Deliverables
ISC11	Hansen CIS Core Cutover Planning/Development, Mock Go-Lives, and Go-Live Cutover – Hansen will execute the data conversions and any required application updates prior to the cutover/go-live, assist the City with the Cutover plan, and support the City cutover execution. This work will be done for two (2) mock go-lives and one (1) final Production cutover activity. The final production cutover will be contingent on no Severity 1's or 2's identified and Hansen and Kingsport consensus that the system and organization are ready to Go-live. *See Attachment A – Cutover Plan Example* for the types of information that will be documented, approved and executed during Mock go-lives and Go-live. Completion Criteria: This scope item is deemed complete based on an approved Cutover plan, successful completion/ of Mock Go-lives, and successful completion of the Cutover Plan during Go-live as well as the completion of the first week of cutover/Go-live support.	• Jointly Developed Cutover/Deployment plan • Hansen CIS Core, Cutover Planning, and Cutover Plan Finalization • Mock #1 – Assigned Cutover Activities, Verification, and Mock Support • Mock #2 – Assigned Cutover Activities, Verification, and Mock Support • Final Cutover – Assigned Cutover Activities, Verification, and Go-live Support. Acceptance Type: Document & Software

.	Scope	Deliverables
ISC12	Hansen Self Service Portal (HSSP) Deployment Planning, Mock Go-Lives, and Go-Live Cutover – Hansen will install three versions of the Hansen Self Service Portal (HSSP) in (2) non-production and (1) production environment. An HSSP User Training will be conducted to train and document the usage of HSSP for City of Kingsport. An HSSP Configuration Workshop will be conducted to identify domain names, native app names, colors, configuration (e.g., logos, menu structures, etc.) and **the layout and data elements that will be presented within the customer-facing portal** to properly deploy the City of Kingsport self-service portal. Non-production environment for HSSP will not be deployed as a native app. Once the configuration has been performed based on the output of the workshop, a native app will be registered on the Google Play and Apple App Store for download and testing purposes on the UAT/Prod environment. HSSP will utilize the converted data as loaded into the CIS. (including Mock Go-Lives and Go-Live). For each Mock and Go-Live, City of Kingsport will need to validate HSSP and its functions with the converted data. Completion Criteria: This scope item is complete based on the completion of the HSSP User training, Configuration Workshop, approved Cutover Plan, successful completion/ of Mock Go-lives utilizing the approved Cutover Plan, successful completion of Cutover Plan during Go-live and the completion of the first week of Cutover/Go-live support.	• Hansen Self Service Portal, Training, Configuration Workshops, Deployment Planning and Finalization • Produce Hansen Self Service Portal as a Native App (Apple/Android) for the production environment (non-production environments will use the web app due to registration of the native app) • Mock #1 – Assigned Cutover Activities, Verification, and Mock Support • Mock #2 – Assigned Cutover Activities, Verification, and Mock Support • Final Cutover – Assigned Cutover Activities, Verification, and Mock Support Acceptance Type: Software

.	Scope	Deliverables
ISC13	Hansen Inventory Test (HIT) Deployment Planning, Mock Go-Lives, and Go-Live Cutover – Hansen will install three versions of the Hansen Inventory Test (HIT) in (2) non-production and (1) production environment. A HIT User Training will be conducted to train and document the usage of HIT for City of Kingsport. A Configuration Workshop will be conducted to identify domain names, native app names, and configuration (e.g., logos, menu structures, etc) in order to properly deploy the City of Kingsport HIT. Non-Production Environment for HIT will not be deployed as a native app. Once the configuration has been performed based on the output of the workshop, a native app will be registered on the Google Play and Apple App Store for download and testing purposes on the UAT/Prod Environment. HIT will utilize the converted data as loaded into the CIS. (including Mock Go-Lives and Go-Live). As part of the conversion activities, data from the current TOKAY system will be converted to Hansen CIS for HIT utilization. For each Mock and Go-Live, City of Kingsport will need to validate HIT functions with the converted TOKAY data. Completion Criteria: This scope item is complete based on the completion of the HIT User training, HIT Configuration Workshop, approved Cutover Plan, successful completion/ of Mock Go-lives utilizing the approved Cutover Plan, successful completion of the Cutover Plan during Go-live and the completion of the first week of cutover/Go-live support. Native app published to the Apple or Android store.	• Hansen Inventory Test, Deployment Planning and Finalization • Conversion of TOKAY data to Hansen CIS • Mock #1 – Assigned Cutover Activities, Verification, and Mock Support • Mock #2 – Assigned Cutover Activities, Verification, and Mock Support • Final Cutover – Assigned Cutover Activities, Verification, and Mock Support Acceptance Type: Software
ISC14	Heightened Support – Hansen will provide the City with dedicated post-go-live support for no more than three (3) months to ensure all billing cycles are executed successfully following go-live. The first month Hansen will provide 100% onsite support, the second month will be 50% onsite, and the 3rd month being remote. Completion Criteria: This scope item is complete when three (3) months of full billing cycles have been executed successfully after cutover and no mutually agreed Severity 1's or 2's exist.	• Three (3) months of full billing cycles have been executed successfully after cutover • Resolution of all mutually Severity 1 and 2 issues Acceptance Type: Document

.	Scope	Deliverables
ISC15	Project Oversight Support - Hansen will provide the City with the following resources for the duration of the project implementations and heightened support period. • Project Management • Application Support • Technical Support • Systems Engineer • Account Management Refer to Section 9.2 Key Personnel for modification in personnel management for the project duration. Completion Criteria: This scope item is complete upon project closeout.	• Project support for the duration of the project Acceptance Type: Document

4.2 Out of Scope

The table below describes the scope of work that will not be provided under this SOW for the avoidance of doubt.

ID	Scope Exclusions
EXC01	Any activity, Modification, business requirement, or deliverable not specifically identified as being In Scope is Out of Scope and will be costed and included in a separate SOW or Change Request as outlined in Section 9.3 Change Management.
EXC02	Provides ability to search archived data. This was marked as an enhancement and currently not in scope.
EXC03	Software enhancements requested by the City of Kingsport must be included as part of the base system to be delivered in all future releases. Hansen has a formal process for requesting and including customer enhancements. Not included in the scope of this SOW
EXC04	Development licenses for all system utilities and tools shall be provided and shall become the property of the City upon system acceptance. Hansen does not provide customers with development licenses for its software. Not included in the scope of this SOW
EXC05	Provides ability to schedule service orders related to customers' requests by allowing customer to select a date and time based on available appointment windows from an integration with Cartegraph. Appointment booking was not listed as an integration and is not included in the scope of this SOW.
EXC06	Provides ability to automatically revert to paper bills upon undeliverable email (system can process bounced emails, undeliverable, full mail, etc.). This exception can be removed as long as Kingsport can deliver a list of undelivered emails that can be referenced to determine which accounts should be automatically reverted to paper bills.
EXC07	System shall incorporate and utilize existing Microsoft Power BI/SSRS capabilities. Hansen's BI standard is Jaspersoft but PowerBI can be used against the reporting database. This is not included in the scope of this SOW.

5 Acceptance Criteria

The table below summarizes the acceptance criteria that have been assumed when producing this SOW.

AC ID	Acceptance Category	Acceptance Criteria
AC01	Document	• Provide relevant software documentation or obtain acknowledgment sign-off from the City, indicating their acceptance of the completed deliverable. • The City shall have five (5) Business Days (or another time period as agreed by the parties) from receipt of each document deliverable to determine whether it is acceptable. • If the City reasonably decides that the deliverable is not acceptable, the City shall provide Hansen with written reasons why it is not, including any specific corrections needed. • In response, Hansen will promptly modify the deliverable accordingly (provided that such correction is consistent with the Scope and purpose of the SOW) and resubmit it to the City. • Upon receipt of the modified deliverable, the City shall promptly (but in no case more than an additional five (5) Business Days) confirm that the deliverable is accepted or identify which of the previously identified deficiencies is still unresolved. • If necessary, the procedures above shall be repeated until the City accepts the deliverable. • If the City does not provide Hansen with written acceptance or notice that it is not acceptable within the five (5) business daytime allotted (or another time period as agreed by the parties), the deliverables will be deemed accepted.
AC02	Software	• Conduct acceptance tests to verify that the deliverable meets the specified acceptance criteria. • Defects will be reported in the Hansen defect management system (Atlassian Jira) by the City and assigned to the Hansen lead for analysis, assignment, and resolution. • The City and Hansen will coordinate rectification of problems and retesting in the manner that most effectively allows for the progressing of UAT. • Within the duration allotted for the City UAT of the deliverable, the City shall determine whether the deliverable is acceptable.

AC ID	Acceptance Category	Acceptance Criteria
		• If the City reasonably decides that the deliverable is unacceptable, the City shall provide Hansen with written reasons for such action, including any specific outcomes needed to achieve acceptance. • In response, Hansen will promptly determine the correction and correct the deliverable (provided that such correction is consistent with the SOW) and resubmit it to the City. • Upon receipt of such corrections, the City shall perform such retests as are necessary to determine whether the corrected deliverable has resolved the identified defect(s), plus any reasonable level of regression testing of the deliverable generally. • The above procedure shall be repeated until the City accepts the deliverable. • If the UAT is not completed within the scheduled time frame, the City and Hansen will discuss the reasons for this and amend the schedule accordingly and confirm in writing. • If acceptance and/or rejection of the deliverable has not been given by the City within the allotted time, the deliverable shall be deemed accepted.

6 Assumptions

The table below describes assumptions provided by, or agreed to, by the City of Kingsport, and relied upon by Hansen to make planning decisions, including estimates of resource, cost, time, and quality. In the event an assumption proves to be incorrect or requires changing, Hansen will continue to provide the services described under this SOW, but the Parties will meet and will follow the agreed change management process as described in Section 9.3 Change Management to ensure that the scope and assumptions are updated.

ID	Description
ASU01	Hansen and the City must elect an implementation strategy and schedule to achieve cutover with minimum possible downtime.
ASU02	After live deployment, the City of Kingsport will pay monthly SaaS fees as identified in Schedule 2 of the Agreement.
ASU03	Core Team training includes the following one (1) Onsite Lead Trainer + one (1) Remote Functional Resource Recording/Supporting/Researching/Documenting needs for upcoming workshops.

ID	Description
ASU04	Training plan assumes fifteen (15) participants per training. Additional participants will require additional class time and/or additional Hansen training delivery resources.
ASU05	Conversion plan assumes six (6) pre-go-live data conversions and one (1) Go-live conversion for a total of seven (7) conversions in which the conversion data will be replaced with the latest converted data
ASU06	Hansen is assuming that once data conversion mapping is completed that only minor changes to that mapping will occur and no new modules or systems will be introduced as source data for conversion.
ASU07	The Hansen Project Manager will coordinate all Hansen personnel and resources involved in performing the Services and will be the first point of contact for issues concerning the Services performed.
ASU08	The City will be responsible for the validation and approval of the results of each conversion run/test, including the analysis of any converted data issues during the test conversion runs as well as during two mock go-live runs. Hansen will execute the data fixes as directed by and approved by the City.
ASU09	All system Rules and Validations and configurations are considered accepted by the City once User Acceptance Testing is complete.
ASU10	All project-related tasks will be performed on various Hansen premises unless specified as an onsite activity in this SOW. Any additional need for Hansen resources to be onsite, outside of the identified tasks will be mutually agreed in writing.
ASU11	Peak Usage is assumed to be Monday-Friday during the following times: 9am-11am, 12pm-1pm, 4pm-6pm.

7 Dependencies

The following dependencies have been identified as required for Hansen to perform the Services:

ID	Description
DEP01	The City will perform its obligations under Section 8.2 The City Responsibilities in a timely manner.
DEP02	Implementation timeline and success is dependent on the City's availability for workshops and deliverable acceptance.
DEP03	The City is responsible to ensure that any 3rd party that is working on their behalf response to request in a timely manner. Any delays could impact the project timeline.

8 Hansen and The City Responsibilities

8.1 Hansen Responsibilities

- Hansen will provide the resources required to perform the Hansen Services detailed in this SOW, according to the agreed project schedule.

- Hansen will provide the necessary integration documentation required to understand and discuss each integration.

8.2 The City Responsibilities

- The City will provide a project manager with an appropriate level of project management skills and the available time (commensurate with the Services) to coordinate the City activities throughout the project.

- If the City of Kingsport becomes aware of any deviations to the requirements, the project schedule or other deviations from the scope of this SOW, these will be confirmed promptly by the City of Kingsport in writing to Hansen and in such event, the parties will mutually agree in good faith on how to proceed, in accordance with the Change Order procedure (see Section 9.3 Change Management for further details).

- City of Kingsport will provide resources needed to meet their responsibilities and the project timelines outlined in this SOW.

- City of Kingsport agrees that delays by City of Kingsport regarding deliverables, approvals, feedback, etc., which the City of Kingsport is required to provide, may delay the project timeline, and may impact project costs.

- Before live deployment, the City of Kingsport will confirm their acceptance of the application in accordance with the Agreement.

  - The City will be responsible for executing the mutually agreed User Acceptance Testing test plans with assistance from Hansen as outlined in Section 4.1 In Scope, Scope item ISC09.

- City of Kingsport will provide a safe, secure, and workable environment/workspace for Hansen resources that perform any work at City of Kingsport site. Such a workspace should be accessible to Hansen resources between 8:00am – 5:00pm (Eastern Standard Time) on any Business Day that isn't a federal public holiday. Examples of items that should be included in such a workspace are suitable work chair and work desk for each person; internet connection; phones with outward dialing capabilities; whiteboards; flipcharts; projector, etc.

8.3 Representatives (Points of Contact)

City of Kingsport	
Name	Kristen Steach
Title	Solutions Manager
Phone	423-224-2545
Mobile	423-914-0615
Email	kristensteach@kingsporttn.gov

Hansen	
Name	Micah Frick
Title	Service Delivery Manager
Phone	+1 803 307 4924
Mobile	+1 803 466 1799
Email	micah.frick@hansencx.com

9 Governance

9.1 Governance

- The City and Hansen will form a project steering committee that will meet once a month to review project status and to discuss any escalated project issues. This committee will be comprised (at a minimum) of the Hansen Project Manager, the City Project Manager, the Hansen project sponsor, and the City's project sponsor.

- Any updates or changes to the project will be managed as part of the Change Management process.

- The project steering committee with review and approve any pending Change Request to the project as quickly as possible. Off cycle meeting will be called by the City and Hansen project managers to receive approval to maintain project timelines.

- Both Hansen and the City understand that maintaining the project timeline is a critical aspect of success of this project and will use commercially reasonable efforts to address any project issues.

- City of Kingsport's project manager will have the authority to provide approvals or be able to facilitate the expedient approvals and acceptance for project milestones, deliverables, acceptance testing, etc. The Project Manager will a have the authority to help craft Change Orders on behalf of City of Kingsport and can represent the project teams at the Project Steering Committee review of Change Orders to the extent allowable under Tennessee State Law and Kingsport City Ordinance.

- Hansen and the City have agreed on a "Base First" approach to implementing business requirements, only exception is if Hansen CIS cannot meet a regulatory requirement. This governing principle is a key aspect of the success of this project. By not following this principle, the project could have changed controls impacting project timeline and cost.

9.2 Key Personnel

If any change in Hansen's Key Personnel is required, Hansen will propose a suitable replacement within 5 Business Days. The City reserves the right to review the proposed replacement's resume, conduct an interview and approve or reject the candidate as a suitable replacement, within 5 Business Days. After 5 Business Days, if Kingsport does not express any concerns the proposed replacement will be assumed as acceptable.

If the City objects to any assignment within the 5 Business Days, in good faith, the parties shall attempt to resolve the City's concerns on a mutually agreeable basis. When possible, a two-week overlap between the departing resource and the replacement will be provided for purposes of transition and knowledge transfer unless an immediate removal from the project is requested by the City.

9.3 Change Management

- Any requests for delivery of additional features, specifications, services, or requirements not authorized within the scope of this SOW or other changes to the scope of this SOW (collectively, the "Additional Services") are explicitly excluded from the SOW.

- If City of Kingsport requests Additional Services during the implementation or the course of this SOW, the Hansen Project Manager will develop a Change Order to this SOW to identify the requested services corresponding costs and fees payable by City of Kingsport, and the impact of the change on the SOW to the extent allowable by Tennessee Law, the Charter of the City of Kingsport, Tennessee or the Kingsport Code of Ordinances.

- This Change Order will be reviewed by the City project manager and then presented to the Project Steering Committee for approval. Said Change Order will become effective only when signed by

both parties (the "Change Order"). A separate SOW for such Additional Services may be required in certain circumstances.

9.3.1 Change Request Process

1. General.

   a. The Parties will use this Change Request Procedure for variations to:

      i. Charges;

      ii. Services;

      iii. Schedule;

      iv. other procedures Hansen is obligated to provide under this SOW

   b. The Parties will act in good faith and reasonably with respect to this process.

2. Change Request

   a. The City may request (either itself or following a suggestion made by Hansen) that:

      i. a change be made to a Service being provided by Hansen;

      ii. Hansen develop an enhancement to the Product; or

      iii. Hansen provides a Professional Service.

   b. The City's requests will be submitted to Hansen in the form agreed between the Parties from time to time (or if no form is agreed, then in the form specified by the City).

      Hansen will keep a log of all such Change Requests the City submits to Hansen. Hansen will maintain this log, showing the status of each Change Request from its generation to final closure. Hansen will make this log available to City at its request.

   c. The City and Hansen must determine by mutual agreement in good faith a priority level for each Change Request.

   d. Change Request are not valid unless signed, accepted, and authorized by both parties.

3. Quote and Impact Analysis

   a. Subject to 3.b below, Hansen will conduct a high-level impact analysis of each Change Request at its own cost. Hansen will provide the City with an order of magnitude ("OOM") in relation to this Change Request within the time agreed between the Parties when the Change Request is submitted.

   b. If the City wishes for Hansen to provide a detailed Quote for the Change Request, Hansen will do so once the City has approved the request in writing.

   c. Where requested as above, Hansen will provide the City with a Quote including:

      i. a quote for developing and implementing the requested change; and

      ii. an impact analysis report including an impact assessment of any impacts the Change Request will have on other activities, including the Support Service.

   d. It will then be the decision of the City whether to approve the Quote.

   e. Hansen must not commence any work to deliver the Change Request relating to a Quote until the City has approved the Quote in writing.

4. Undertaking the Change Request.

   a. When the City has approved a Quote, Hansen will:

      i. undertake the work described in the Change Request in accordance with the agreed timetable;

      ii. notify the City as to when the Change Request is ready to be delivered; and

      iii. assist the City to conduct Acceptance Testing if required.

    b. Any replacement for, or alteration, upgrade, or enhancement to, the System due to a Change Request implemented in accordance with this change control procedure will form part of the System governed by this SOW.

10 Price and Payment

10.1 Fees

The Fees for this SOW as detailed in the table below are fixed at $1,060,094 ("Services Fee"). The Services Fee is limited to the hours listed below and excludes any travel and living expenses. Notwithstanding the foregoing, Hansen will have no obligation to perform any Services beyond the total 8,490 capped hours unless the City authorizes additional funding for further continuance of effort.

Hansen will invoice the City for the Deliverables in accordance with the schedule at the completion of the payment milestones listed in the table that follows; an invoice for the payment milestone will not be generated by Hansen until the Deliverables associated with that milestone have been accepted by City in accordance with this SOW.

The City shall pay the full amount of the invoice net 30 days from the invoice date.

Payment Milestone	ISC	Description	**Price**	Discount
MIL01	ISC01	Project Initiation	$20,800	
MIL01	ISC02	Target Release Installs	$82,800	
MIL01	ISC03	Application Prep and Training	$59,200	
MIL02	ISC04	Configuration Workshops and Consulting	$84,800	
MIL08	ISC05	Organizational Change Management (OCM) Workshop, OCM Support, and Standard Operating Procedures Development	$294,000	-$275,000
MIL03	ISC06	Legacy Data Conversion (Pre-UAT)	$273,600	-$175,000
MIL05	ISC6.5	Legacy Data Conversion (Post-UAT)	$24,000	
MIL02	ISC07	UI Configuration, Implementation and Testing	$20,000	
MIL06	ISC08	Integration Workshops and Development	$367,200	-$187,906
MIL02	ISC8.5	Reporting	$28,000	
MIL04	ISC09	User Acceptance Support (UAT)	$122,800	
MIL04	ISC9.5	Performance Verification Test	$1,600	
MIL07	ISC10	End User Training	$34,800	
MIL07	ISC11	Hansen CIS Core Cutover Planning/Development, Mock Go-Lives, and Go-Live Cutover	$61,400	

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MIL07	ISC12	Hansen Self Service Portal (HSSP) Deployment Planning, Mock Go-Lives, and Go-Live Cutover	$4,800	
MIL07	ISC13	Hansen Inventory Test (HIT) Deployment Planning, Mock Go-Lives, and Go-Live Cutover	$4,000	
MIL09	ISC14	Heightened Support	$66,200	
MIL09	ISC15	Project Oversight	$148,000	
			$1,698,000	-$637,906
				$1,060,094

Milestone	Amount	Discount	Payment
MIL01	$162,800		$162,800
MIL02	$132,800		$132,800
MIL03	$273,600	-$175,000	$98,600
MIL04	$124,400		$124,400
MIL05	$24,000		$24,000
MIL06	$367,200	-$187,906	$179,294
MIL07	$105,000		$105,000
MIL08	$294,000	-$275,000	$19,000
MIL09	$214,200		$214,200
Totals	$1,698,000	-$637,906	$1,060,094
Travel Estimate*	$129,040	-$57,040	As incurred

*Includes expenses and travel time, Hansen is waving travel time fees

10.2. Fee Assumptions

- Travel expenses must be approved by the City and the Hansen Project Manager in advance and will be invoiced to the City monthly, in arrears, as incurred. Estimated costs for hotels, flights, Car rental, etc., will be emailed to the City Project Manager for approval before travel bookings. Also, the role and reason for travel of the resource will be included in this document. See Attachment B - Hansen Travel Approval Request

- Hansen reserves the right to suspend its provision of the Services if the City has not paid an invoice within forty-five (45) days of the due date of that invoice and the City has not provided written fee dispute or reason for delay. In such an instance, Hansen may suspend its Services until the payment delay has been resolved.

- If the City objects to an invoice or any portion thereof, the City shall notify Hansen in writing within thirty (30) days after receipt of such invoice with objections to the Account Manager for research and reconciliation.

- If a milestone is delayed by more than thirty (30) days for reasons not attributable to Hansen, including without limitation: if (a) any assumptions are not correct as mutually determined by the parties; (b) any dependencies are not met by the City as mutually determined by the parties; then Hansen shall be able to invoice the City for the fees associated with such milestone.

11 Travel Expenses

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- Travel expenses will be billed as incurred and are not included in the fixed fee charges stated in Section 10.1 Fees above.

- The following activities and their associated travel durations have been provided for planning purposes.

Onsite Event	Lead	# of Trips	# of Resources	Duration (Days)	Estimated Month Start
Project Kickoff	Hansen	1	3	4	2
Conversion Mapping Workshop	Hansen	2	1	10	2
Core Team Training with Hands-on Exercises	Hansen	4	1	16	2
Hansen Inventory Test Training (HIT)	Hansen	1	1	0.5	3
Hansen Self Service Portal Training (HSSP)	Hansen	Trip included with HIT Training	1	0.5	3
HBI & Jaspersoft Technical Training	Hansen	Trip included with HIT Training	1	3	3
CIS Technical Overview Training (HIF, HBI, Auditing, Security)	Hansen	1	1	4	3
Integration Requirements Workshops	Hansen	2	1	10	3
UI Configuration Workshop	Hansen	1	1	2	4
Rules and Validation Workshop	Hansen	Trip included with UI Config workshop	1	4	4
Rate Configuration Workshop	Hansen	1	1	4	4
Baseline Business Process Mapping Workshop	Hansen	3	1	14	4
HIT Configuration Workshop	Hansen	1	1	1	5
HSSP Configuration Workshop	Hansen	Trip included with HIT Config workshop	1	1.5	5
Batch Scheduling Workshop	Hansen	Trip included with HIT Config workshop	1	4	5

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Onsite Event	Lead	# of Trips	# of Resources	Duration (Days)	Estimated Month Start
Organizational Change Management Workshop	Hansen	1	1	5	5
Standard Operating Procedures (SOP) Collaboration and Development (One week per month for 9 months starting month 5)	Hansen	9	1	45	5
UAT Workshop	Hansen	1	1	5	8
UAT Management	Hansen	6	1	30	9
End User Training	Hansen	4	1	20	10
Mock 2	Hansen	1	1	5	13
Go-live	Hansen	1	2	10	14
Heightened Support (3 months - 100% first month, 50% Second Month, Remote Third month)	Hansen	6	1	30	15
Quarterly PMO Meeting – Onsite	Hansen	4	1	20	3
MISC Travel (OCM,)	Hansen	4	1	30	3

- For any work undertaken that requires travel, Hansen will invoice the City of Kingsport a daily per diem utilizing the current U.S. General Services Administration per diem rates for Kingsport, TN, 37660.

- Reasonable hotel costs will be reimbursed at standard business class hotel rates (i.e. Hampton Inn, Fairfield Suites)

- In addition, Hansen will also invoice for any other reasonable expenses incurred in the provision of services to the City of Kingsport under this SOW, subject to prior approval by the City of Kingsport.

11.1 Other

If additional work is required beyond the work described in this SOW, Change Management procedures otherwise specified in Section 9.3 Change Management will be utilized to manage the required changes and determine the additional charges (if any) and associated time frames requested for those additions/changes.

This additional work will be billed monthly as incurred on a Time and Material ("T&M") basis using the rates outlined below unless otherwise specified in the executed Change Request. The Time and Materials rates listed below are effective until the completion of the Services set forth in this SOW. Thereafter, Hansen's then-current rates will apply.

Resource Rates	
Resource Name	Hourly Rate
Project Manager	$225.00
Technical Consultant	$200.00
Functional Consultant	$200.00
Organization Change Management	$200.00
Developer	$200.00
Training and Training Prep time	$225.00
Travel Time	$115.00*
Per Diem (per night)	$75.00

*Billed as incurred

Approvals

This Statement of Work is agreed to and accepted on behalf of:

Hansen Banner, LLC

City of Kingsport, Tennessee

_____

Signature

_____

Paul W. Montgomery, Mayor

_____

Date

_____

Date

_____

Printed Name

Attest:

_____

Title

_____

Angela Marshall, Deputy City Recorder

Approved as to form:

_____

Rodney B. Rowlett, III, City Attorney

Definitions

All capitalized terms used and not defined herein shall have meanings given to them in the Agreement.

(a)   "Baseline Component System" has the meaning ascribed to such term in the Software License Agreement between the parties. Further, for purposes of this SOW, it refers specifically to the Hanen CIS product.

(b)   "BASE FIRST" means that customer is willing to accept the standard capabilities of Hansen CIS or make changes to business processes to avoid making Modifications to Hansen CIS.

(c)   "Business Days" means the calendar days of Monday, Tuesday, Wednesday, Thursday, and Friday, excluding weekends and federal holidays.

(d)   "Cutover" means the period beginning with the final legacy data extract and working towards production processing.

(e)   "Development Environment" means an instance of the Baseline Target Release to be used solely by Hansen for development and testing efforts.

(f)   "Hansen Project Manager " means the person appointed by Hansen to manage this project.

(g)   "Modification" means programmatic changes to core business logic, that is outside product configuration changes or using product extensions.

(h)   "Peak Usage" refers to the times or periods when the call center experiences the highest volume of incoming calls.

(i)   "Production Environment" means an instance of the Baseline Target Release to be used by the City as their production environment.

(j)   "Rules and Validations (R&V) Environment" means an instance of the Baseline Target Release to be used as the master version of all rules, validations, and configurations utilized for each conversion and for production.

(k)   "User Acceptance Testing (UAT)" means the stage of software development when the City test the software to assess its functionality and usability, and ensure that it meets the requirements of the UAT test plan.

(l)   "User Acceptance Test (UAT) Environment" means an instance of the Baseline Target Release to be used by the City to verify that the Baseline Target Release meets the user acceptance criteria in accordance with the acceptance test plan.

(m)   "Severity 1 Issue" means a critical system down issue that causes all live system processing to stop or causes a loss or corruption of the City's data which seriously threatens to prevent time-critical business processes from being performed in time by the City.

(n)   "Severity 2 Issue" means a serious issue that affects most users or materially disrupts the City's time-critical business processes.

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Attachments

Attachment A – Cutover Plan Example

{OBJ}

Mock?	Phase	Originating Source	Step	Dependency (Use "SS" as part of Dependency Step# to indicate a sub-steps of the primary Step)	Day (Format: Mon, Tues, Wed, Thur, Fri, Sat, Sun)	Task Start Date (Format: MM/DD/YYYY HR:MIN AM/PM Ex: 11/22/2022 8:45 AM)	Task End Date (Format: MM/DD/YYYY HR:MIN AM/PM Ex: 11/22/2022 9:00 AM)	Estimated Duration (Minutes)	Actual Duration (Minutes)	Task	Details/Instructions	Task Notes	Task Owner	Responsible Party(s) for Execution	Ahead/Behind (+/-) (Column used during actual cutover tracking)	Completed (Column used during actual cutover tracking) (Format: MM/DD/YYYY HR:MIN AM/PM Ex: 11/22/2022 9:00 AM)	Comments	Entered/updated By	Date Entered
Y	00Prepare	Client	0		Thu	2/1/24 12:00 AM	6/17/24 4:00 PM	600		Send out Monthly emails to Billing through September to	Send out Monthly emails to Billing through September to		Resource 1	Resource 2					
Y	00Prepare	Client	1		Mon	6/17/24 8:00 AM	6/17/24 4:00 PM	480		Banner Home cleanup (Links) before Mock Start	Move current links to correct folders		Resource 3	Resource 3					
Y	00Prepare	Client	2		Fri	3/22/24 12:00 AM	3/22/24 1:00 AM	60		Identify Key Accounts	These accounts will be reviewed in HansenCIS		Resource 3	Resource 2					
Y	00Prepare	Client	3		Fri	4/5/24 12:00 AM	4/5/24 1:00 AM	60		Review Key Account list with execs	Identify which need to be reviewed BEFORE the Go/No Go decision and		Resource 3	Resource 1					
Y	01PreCut	Client	4		Fri	5/3/24 8:00 AM	5/3/24 9:00 AM	60		Data Cleanse Open Read/In/Out Rows	Run SQL Script to identify records. Sara has name/location		Resource 4	Resource 2					
Y	01PreCut	Client	5		MON	6/10/24 12:00 AM	6/10/24 12:00 AM			Identify THURS users	Resources that will be clearing exceptions/		Resource 5	Resource 3					
Y	02Cut	Hansen	6		Mon	8/19/24 8:00 AM	8/19/24 8:05 AM	5	5	AppWorx testing for the Asset Suite jobs			Resource 5	Resource 3					
Y	02Cut	Client	7		Mon	7/15/24 12:00 AM	7/15/24 1:00 AM	60		Training on Legacy Cutoff	Training on Legacy Cutoff	for new hires; cutoff 3 months prior to Go-Live	Resource 5	Resource 3					

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Attachment B - Hansen Travel Approval Request

[OBJ]

Example below

Hansen CIS 2021 Upgrade - Travel Request Form Month Day, YYYY - Month Day, YYYY			
Traveler Details			
	Traveler #1	Traveler #2	Traveler #3
Traveler Name			
Travel Dates			
Travel Reason			
Role			
Reason for Travel (Training, Meetings, Workshops, etc)			
Estimated Costs			
Airfare	Airfare #1	Airfare #2	Airfare #3
Airline			
Departure Date			
Return Date			
Comments			
Total	$0.00	$0.00	
Rental Car	Traveler #1	Traveler #2	Traveler #3
# of days			
Rate			
Comments			
Total	$0.00	$0.00	
Lodging	Traveler #1	Traveler #2	Traveler #3
Hotel			

ID	Task Name	Duration	Work	Start	Finish
0	**Kingsport Hansen CIS SaaS Implementation Plan**	**395.53d**	**8,490.11h**	**Thu 8/1/24**	**Wed 2/25/26**
1	**ENGAGEMENT PHASE**	**41d**	**0h**	**Thu 8/1/24**	**Tue 10/1/24**
2	Identification & definition of business drivers	0d	0h	Thu 8/1/24	Thu 8/1/24
3	Solution Evaluation	0d	0h	Thu 8/1/24	Thu 8/1/24
4	Investment Justification/ROI	0d	0h	Thu 8/1/24	Thu 8/1/24
5	SAAS Deployment Finalization	0d	0h	Thu 8/1/24	Thu 8/1/24
6	Contracting/Statement of Work	0d	0h	Tue 10/1/24	Tue 10/1/24
7	**DEFINITION PHASE**	**153.97d**	**1,122h**	**Tue 10/1/24**	**Tue 5/20/25**
8	**Project Initiation**	**21.5d**	**104h**	**Tue 10/1/24**	**Wed 10/30/24**
9	Platform Provisioning (Custom URL /Build GIT Repository)	10d	20h	Tue 10/1/24	Mon 10/14/24
10	Project Team Confirmed/Pre-meeting	3d	12h	Tue 10/15/24	Thu 10/17/24
11	Project Plan Complete	4d	24h	Fri 10/18/24	Wed 10/23/24
12	Project Team Contact Information Confirmed/Distributed	0.5d	4h	Thu 10/24/24	Thu 10/24/24
13	Customer Kick-Off (Prep and Meeting)	3d	18h	Thu 10/24/24	Tue 10/29/24
14	Training Needs Questionnaire Assessment	1d	8h	Tue 10/29/24	Wed 10/30/24
15	All Tasks loaded to JIRA/Assigned/Accounting Code Defined	3d	18h	Fri 10/18/24	Tue 10/22/24
16	**Training and Consulting**	**143.97d**	**1,018h**	**Tue 10/15/24**	**Tue 5/20/25**
17	**Training (Sandbox) Environment Build**	**8.22d**	**64h**	**Tue 10/15/24**	**Fri 10/25/24**
18	Sandbox/Training environment - Stand Up/Configure Base CIS Database (Requisition a New DB)	0.75d	6h	Tue 10/15/24	Tue 10/15/24
19	Sandbox/Training environment - Standup Applications - Hansen CIS with Security Service/HIF/HBI/OLH	1.22d	8h	Tue 10/15/24	Wed 10/16/24
20	Sandbox/Training environment - Configure Email/Interface Rule Settings	1d	8h	Wed 10/16/24	Thu 10/17/24
21	Sandbox/Training environment - HIT Configuration	1.13d	9h	Thu 10/17/24	Mon 10/21/24
22	Sandbox/Training environment - HSSP Configuration	1.13d	9h	Mon 10/21/24	Tue 10/22/24
23	Sandbox/Training environment - Verifications	3d	24h	Tue 10/22/24	Fri 10/25/24
24	**CIS Fundamentals Training (Preparation & Delivery)**	**39d**	**428h**	**Wed 10/16/24**	**Tue 12/17/24**
25	Core Team Training Preparation	10d	40h	Wed 10/16/24	Wed 10/30/24
26	Core Team Training with Hand's On Exercises (4 Weeks/4 Days a week) (HTP)	16d	256h	Wed 10/30/24	Thu 11/21/24
27	Core Team Training Follow UP	12d	48h	Thu 11/21/24	Mon 12/16/24
28	CIS Technical Overview Training Prep	1d	6h	Fri 10/25/24	Mon 10/28/24

ID	Task Name	Duration	Work	Start	Finish
29	CIS Technical Overview Training (HIF, HBI, Auditing, Security)	3d	24h	Mon 12/2/24	Thu 12/5/24
30	CIS Technical Overview Training Follow up	1d	6h	Thu 12/5/24	Fri 12/6/24
31	Hansen Inventory Test Training (HIT)	1d	4h	Fri 12/6/24	Mon 12/9/24
32	Hansen Self Service Portal Training (HSSP)	1d	4h	Mon 12/9/24	Tue 12/10/24
33	HBI & Jaspersoft Technical Training (HTP)	5d	40h	Tue 12/10/24	Tue 12/17/24
34	**CIS Implementation Workshops & Consulting**	**103d**	**526h**	**Tue 12/17/24**	**Tue 5/20/25**
35	Rules and Validation Workshop	4d	24h	Tue 12/17/24	Mon 12/23/24
36	Rules and Validation Post Workshop Consulting	15d	30h	Mon 12/23/24	Wed 1/22/25
37	Rate Configuration Workshop	3d	24h	Fri 1/3/25	Wed 1/8/25
38	Rate Configuration Post Workshop Consulting	15d	45h	Wed 1/8/25	Wed 1/29/25
39	UI Configuration Workshop	2d	12h	Fri 1/10/25	Tue 1/14/25
40	UI Configuration Post Workshop Consulting	12d	24h	Tue 1/14/25	Thu 1/30/25
41	Baseline Business Process Mapping Workshop	14d	91h	Thu 1/16/25	Wed 2/5/25
42	Baseline Business Process Mapping Post Workshop Consulting	24d	48h	Wed 2/5/25	Tue 3/11/25
43	Additional Business Process Re-Engineering Services/Workshops (HCP)	50d	120h	Tue 3/11/25	Tue 5/20/25
44	Batch Scheduling Workshop	4d	18h	Fri 2/7/25	Thu 2/13/25
45	Batch Scheduling Post Workshop Consulting	10d	24h	Thu 2/13/25	Thu 2/27/25
46	HIT Configuration Workshop	1d	8h	Thu 2/13/25	Fri 2/14/25
47	HIT Configuration Post Workshop Consulting	10d	8h	Fri 2/14/25	Fri 2/28/25
48	HSSP Configuration Workshop	1.5d	12h	Fri 2/14/25	Tue 2/18/25
49	HSSP Configuration Workshop Post Workshop Consulting	10d	8h	Tue 2/18/25	Tue 3/4/25
50	Organizational Change Management Workshop	5d	30h	Thu 2/20/25	Thu 2/27/25
51	**BUILD PHASE**	**204.31d**	**3,368h**	**Fri 10/25/24**	**Mon 8/25/25**
52	**Conversion Pass 1 Prep and Execution**	**158.55d**	**1,344h**	**Fri 10/25/24**	**Fri 6/20/25**
53	Conversion Target Environment Build - Stand Up EMPTY CIS Database	0.75d	6h	Fri 10/25/24	Fri 10/25/24
54	Conversion Mapping Workshop/Tool Development/Access to Legacy DB Copy	30d	180h	Fri 10/25/24	Fri 12/13/24
55	Additional Conversion Mapping Support (HCP)	21.33d	128h	Fri 12/13/24	Thu 1/23/25
56	Conversion design and build (Legacy CIS and Tokay)	60d	600h	Thu 1/23/25	Thu 4/17/25
57	Conversion Pass #1 Execution/Verifications	21d	188h	Thu 4/17/25	Fri 5/16/25
58	Conversion Target Environment Build - Standup Applications - Hansen CIS with Security Service/HIF/HBI/	1.33d	8h	Thu 5/1/25	Fri 5/2/25
59	Conversion Target Environment Build - HIT	1.5d	9h	Fri 5/2/25	Tue 5/6/25

ID	Task Name	Duration	Work	Start	Finish
60	Conversion Target Environment Build - HSSP	1.5d	9h	Tue 5/6/25	Wed 5/7/25
61	Conversion Target Environment Build - Conversion Verifications	6d	24h	Wed 5/7/25	Thu 5/15/25
62	Conversion Pass 1 Mapping Changes/Corrections	13.33d	64h	Thu 5/15/25	Tue 6/3/25
63	Conversion Pass 2 Mapping Changes/Corrections	6.4d	64h	Tue 6/3/25	Thu 6/12/25
64	Conversion Pass 3 Mapping Changes/Corrections	6.4d	64h	Thu 6/12/25	Fri 6/20/25
65	**Development/UAT/Prod Environment Build**	**112.83d**	**294h**	**Fri 10/25/24**	**Fri 4/18/25**
66	**Dev Environment 1 Installation**	**4.5d**	**27h**	**Fri 10/25/24**	**Fri 11/1/24**
67	Dev environment #1 - Hansen CIS Install/Security Service/HIF/HBI	1.5d	9h	Fri 10/25/24	Tue 10/29/24
68	Dev environment #1 - HIT Install	1.5d	9h	Tue 10/29/24	Wed 10/30/24
69	Dev environment #1 - HSSP Install (Application)	1.5d	9h	Wed 10/30/24	Fri 11/1/24
70	**Production (Dev Environment 2) Installation**	**95d**	**187h**	**Fri 11/1/24**	**Tue 4/1/25**
71	Dev environment #2 - Hansen CIS Install/Security Service/HIF/HBI	1.5d	9h	Fri 11/1/24	Mon 11/4/24
72	Dev environment #2 - HIT Install	1.5d	9h	Mon 11/4/24	Wed 11/6/24
73	Dev environment #2 - HSSP Install (Application)	1.5d	9h	Wed 11/6/24	Thu 11/7/24
74	Dev environment #2 - Native App Implementation (Apple/Android)	20d	160h	Tue 3/4/25	Tue 4/1/25
75	Additional Environments for Onboarding (HCP)	13.33d	80h	Tue 4/1/25	Fri 4/18/25
76	**Implement UI Changes**	**27.08d**	**130h**	**Thu 1/30/25**	**Tue 3/11/25**
77	Hansen Implementation of UI Changes for customer	27.08d	130h	Thu 1/30/25	Tue 3/11/25
78	**Integration Development & Testing**	**86.33d**	**1,406h**	**Tue 2/18/25**	**Wed 6/18/25**
79	**Services API Related Integrations (Mobile Dispatch/GIS)**	**33.15d**	**352h**	**Tue 2/18/25**	**Fri 4/4/25**
80	Integrations Requirements Workshops and Documentation	1.9d	32h	Tue 2/18/25	Thu 2/20/25
81	Integration Definition/Story Development	6.25d	80h	Thu 2/20/25	Fri 2/28/25
82	Integration Code & Unit Test	25d	160h	Thu 2/20/25	Thu 3/27/25
83	Integration Test Case Story Development/Test Execution	6.25d	80h	Thu 3/27/25	Fri 4/4/25
84	**Customer Related Integrations (IVR/Payments/Communications&Bill Printing**	**44.58d**	**352h**	**Thu 2/20/25**	**Wed 4/23/25**
85	Integrations Requirements Workshops and Documentation	13.33d	32h	Thu 2/20/25	Tue 3/11/25
86	Integration Definition/Story Development	6.25d	80h	Tue 3/11/25	Wed 3/19/25
87	Integration Code & Unit Test	25d	160h	Tue 3/11/25	Tue 4/15/25
88	Integration Test Case Story Development/Test Execution	6.25d	80h	Tue 4/15/25	Wed 4/23/25
89	**Accounting/File Integrations (File Integrations - GL, Collections, Reading Files, Payment Files)**	**44.58d**	**352h**	**Tue 3/11/25**	**Tue 5/13/25**
90	Integrations Requirements Workshops and Documentation	13.33d	32h	Tue 3/11/25	Mon 3/31/25

ID	Task Name	Duration	Work	Start	Finish
91	Integration Definition/Story Development	6.25d	80h	Mon 3/31/25	Tue 4/8/25
92	Integration Code & Unit Test	25d	160h	Mon 3/31/25	Mon 5/5/25
93	Integration Test Case Story Development/Test Execution	6.25d	80h	Mon 5/5/25	Tue 5/13/25
94	Integration Testing between all interdependent integrations	20d	250h	Tue 5/13/25	Tue 6/10/25
95	**Reporting Development**	**20.83d**	**100h**	**Tue 5/20/25**	**Wed 6/18/25**
96	Report Analysis and creation (HCP)	20.83d	100h	Tue 5/20/25	Wed 6/18/25
97	**UAT Planning & Preparation**	**45.76d**	**194h**	**Fri 6/20/25**	**Mon 8/25/25**
98	UAT Workshop	25.76d	34h	Fri 6/20/25	Mon 7/28/25
99	UAT Artifacts Review/Consulting	20d	80h	Mon 7/28/25	Mon 8/25/25
100	**Conversion Pass 4 on Production Environment for UAT**	**11d**	**80h**	**Fri 6/20/25**	**Mon 7/7/25**
101	Conversion Pass 4 Target Environment Build - Clear/Recreate Empty CIS Database	1d	6h	Fri 6/20/25	Mon 6/23/25
102	Conversion Pass #4 Execution/Verifications	5d	50h	Mon 6/23/25	Mon 6/30/25
103	Conversion #4 Mapping Changes/Corrections	5d	24h	Mon 6/30/25	Mon 7/7/25
104	**DEPLOY PHASE**	**146.76d**	**1,368h**	**Mon 5/5/25**	**Wed 11/26/25**
105	**UAT Execution (6 Weeks)**	**66.76d**	**508h**	**Mon 7/7/25**	**Wed 10/8/25**
106	Performance Verification Test	1.33d	8h	Mon 7/7/25	Wed 7/9/25
107	User Acceptance Test Management (HDP)	12.5d	100h	Mon 8/25/25	Thu 9/11/25
108	User Acceptance Test Execution Support (HDP)	10d	40h	Mon 8/25/25	Mon 9/8/25
109	UAT Functional/QA Support	32d	120h	Mon 8/25/25	Wed 10/8/25
110	UAT Technical Support	32d	120h	Mon 8/25/25	Wed 10/8/25
111	UAT Integrations Architect	30d	120h	Mon 8/25/25	Mon 10/6/25
112	**End User Training**	**63.44d**	**574h**	**Mon 5/5/25**	**Fri 8/1/25**
113	Planning/Developing End User Training Plan (HTP)	31.25d	200h	Mon 5/5/25	Wed 6/18/25
114	End User Training/Material Support (HTP)	33.44d	214h	Mon 5/19/25	Fri 7/4/25
115	End User Training Execution	20d	160h	Fri 7/4/25	Fri 8/1/25
116	**Deployment Planning and Mock Execution**	**89.76d**	**246h**	**Mon 7/7/25**	**Mon 11/10/25**
117	Deployment Planning	20d	48h	Mon 7/7/25	Mon 8/4/25
118	Additional Deployment Planning Support (HDP)	3.89d	28h	Mon 8/4/25	Fri 8/8/25
119	Mock 1 Conversion (Conversion #5)	4d	40h	Wed 10/8/25	Tue 10/14/25
120	Mock 1 Execution Support	8d	35h	Wed 10/8/25	Mon 10/20/25
121	Deployment Plan Revisions	15d	20h	Wed 10/8/25	Wed 10/29/25

ID	Task Name	Duration	Work	Start	Finish
122	Mock 2 Conversion (Conversion #6)	4d	40h	Wed 10/29/25	Tue 11/4/25
123	Mock 2 Execution Support	8d	35h	Wed 10/29/25	Mon 11/10/25
124	Deployment Plan Finalized	20d	40h	Wed 10/29/25	Wed 11/26/25
125	**OPERATE**	**5d**	**121h**	**Wed 11/26/25**	**Wed 12/3/25**
126	**Go-Live**	**5d**	**121h**	**Wed 11/26/25**	**Wed 12/3/25**
127	Golive Conversion (#7)	5d	40h	Wed 11/26/25	Wed 12/3/25
128	Golive Deployment/Support	5d	81h	Wed 11/26/25	Wed 12/3/25
129	**Project Support**	**295d**	**2,180.11h**	**Tue 10/1/24**	**Wed 12/3/25**
130	Project Management	295d	500h	Tue 10/1/24	Wed 12/3/25
131	Status Meetings (PM)	295d	72.59h	Tue 10/1/24	Wed 12/3/25
132	Status Meetings (Func/Tech)	295d	167.52h	Tue 10/1/24	Wed 12/3/25
133	Organizational Change Management	295d	480h	Tue 10/1/24	Wed 12/3/25
134	Standard Operation Procedures and development	295d	960h	Tue 10/1/24	Wed 12/3/25
135	Travel Time	295d	0h	Tue 10/1/24	Wed 12/3/25
136	**Heightened Support**	**60d**	**331h**	**Wed 12/3/25**	**Wed 2/25/26**
137	Additional Heightened Support (100% onsite first month, 50% second month, remote third month) (HDP)	60d	331h	Wed 12/3/25	Wed 2/25/26

Exhibit 3 - System Requirements Spreadsheet

City of Kingsport (TN)

Customer Information System - Requirements Matrix

Outline of Functions Required:

- Customer Service
- Accounts
- Premises
- Services
- Devices
- Meter Readings and Meter Management
- Rates & Fees
- Billing
- Credit & Collections
- Financial
- Contacts
- Customer Self-Service Portal
- Service Orders
- Interfaces
- Business Intelligence (BI) & Reporting
- Infrastructure & Technology

KINGSPORT TENNESSEE

R RAFTELIS

Please enter your organization's name in the cell below:

Offeror's Name

Instructions:

This workbook will be used to collect more details about the functional capabilities of the proposed CIS. It is imperative that Offeror answer the questions in accordance with the guidelines provided below. Offerors' responses shall be verified during any scheduled proof-of-concept activities. It is also assumed that the Offerror will provide full proof of the capabilities declared in this workbook.

Please indicate your capability to provide for each requirement using one of the six codes listed in the key of this tab. Please provide any additional comments or clarification in the 'Vendor Comments' column, where necessary. Only enter values in numbered rows, in the 'Response' and 'Vendor Comments' columns. 'Response' is required for each item, while 'Vendor Comments' are at the Offeror's discretion.

The City selection committee will calculate a score for each matrix based on each Offeror's capability to provide and the priority level for each requirement.

Key

Vendor's capability to provide

	Code	Points
Provided for in the base system with standard configuration options	Std	15
Provided for by enhancement to base system	Enhance	10
Provided for in base system of Future release	Future	3
Third Party Add-On to base system	3rd Party	2
Provided for by Custom modification of base system	Custom	1
Cannot Provide	NA	0

Priority Level

	Code	Weight
High	H	100%
Low	L	10%
Medium	M	50%

Additional Notes to the Offeror:

Offerors are cautioned not to indicate functionality is included in standard offering when, in fact, that particular function is in development, UNLESS there is a verifiable commitment that functionality will be available by the time Implementation is to begin. If this is the case, then Offerors should note this fact in the Comments column, indicate the expected release/date such features will be made available and note any impact the additional functionality would have in the pricing. By responding in the affirmative to a capability item, the Offeror agrees to provide such capability in its product.

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor Comments
Customer Types			
	Provides ability to easily add, search for, relate, and manage the following customer types:		
1	> Normal billed customers (e.g. Water, Sewer, Stormwater, Sanitation etc.)	Std	
2	> Pre-Pay customers (e.g. roll-off dumpsters)	Std	
3	> Prospective Customers	Std	
4	> Third-Party Customers (linked to other customers or utility accounts- set up with third party customer number)	Std	
5	> Sanitation only Customers	Std	
6	> Stormwater only Customers	Std	
7	> Sewer only Customer	Std	
8	> Irrigation only Customers	Std	
9	> Fireline only Customers	Std	
10	> Landlord Customers (linked to one or to multiple accounts)	Std	
11	> Master Customers (linked to multiple utility accounts)	Std	
12	> Key Customers	Std	
13	> Internal Customers	Std	
14	> Wholesale Customers	Std	
15	> User Defined Customer Codes	Std	
Customer Record			
16	Provides ability to create a new customer by accessing only a minimal amount of screens	Std	
17	Provides a customer data level used for grouping accounts, prospecting, third-party relationships, landlord responsibility, property owner, etc.	Std	
18	Allows a customer to have many different accounts in the system	Std	
19	Allows accounts linked to a customer to be billed separetely or combined	Std	
	Provides ability to store multiple types of identification types and numbers masked or unmasked depending on user's role:		

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor
20	> Sensitive/Critical customer (e.g., do not disconnect, medical, domestic violence, password required)	Std	
21	> System or User Defined Customer Type (eg. owner, tenant)	Std	
22	> System or User Defined Customer Status	Std	
23	> Standard Industrial Code (SIC) / North American Industry Classification System (NAIC) code	Std	
24	> Non-Specific user defined fields (please state how many)	Std	
25	>User defined identification type (ex. SSN, State ID, Driver's License)	Std	
26	Utilizes one unique record for each customer.	Std	
27	Provides for multiple addresses for each customer such as primary and billing or permanent or temporary (list how many)	Std	
28	Provides ability to store a foreign address with a minimum of 6 lines available	Std	
29	Provides ability to automatically charge turn off/on fee for same day service and override if necessary	Std	
30	Provides ability to set up customers from portal or IVR directly into CIS (pre-populates form(s) in CIS)	Std	
31	Provides ability to set up services quickly with minimum number of clicks	Std	
32	Provides ability to have credit rating follow customer	Std	
33	Provides ability to create alerts tied to the customer based upon several parameters (ex. usage, start date & end date) and disappears when not active	Std	
34	Provides ability to capture customer's prior address and/or prior zip code	Std	

Customer Management

Item	Requirement	Response	Vendor
35	Provides landing page for CSRs with messaging/banners, links to CIS functions, training resources, and alerts (ex. discounts)	Std	
36	Provides ability to support warnings, alerts, news flash windows and pop-ups within system, messages can be targeted to specific users or user groups (ex. street closures, weather alerts)	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor
37	Provides scripting for different types of contacts, along with recommended directions/actions, prompted by customer responses to IVR	Std	
38	Provides other training resources including but not limited to an interactive, searchable help guide and pop up windows with suggested actions/inputs/workflows	Std	
39	Provides direct link between IVR and CIS, communicates customer information when CSR picks up line (screen pop)	Std	
40	Provides ability to color code customer's charges based on age	Std	
	Information specifically related to the customer, their accounts and activities shall be tracked, managed, and associated with the customer and include the following information:		
41	> Last payment due	Std	
42	> Current service orders	Std	
43	> Pending issues	Std	
44	> Customer Credit Score (combined credit score of all related accounts)	Std	
45	> Customer Balance (combined balance of all accounts)	Std	
46	> Accounts (listing of related accounts with drill down)	Std	
47	> Consumption History (combined consumption of all related accounts)	Std	
48	> Contacts (for all related accounts)	Std	
49	> Source of Contact (Portal, IVR, Call Center, Email, Chat, Help Desk, Kiosk)	Std	
50	> Service Orders (for all related accounts)	Std	
51	> Billing History (for all related accounts)	Std	
52	> Deposits (for all related accounts)	Std	
53	Provides ability to easily view deposits. Deposits shall automatically intitiate collection activities on the account based on user-defined parameters	Std	
54	Provides ability to easily transfer balances and deposits, provided user has proper permissions	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor
55	Allows a single customer to have many relationships (e.g. owner, landlord, tenant, backflow contact) to a single account or multiple accounts. Customers/individuals are recorded in the system only once	Std	
56	Customers shall be independent of Accounts and Premises	Std	
57	Provides ability to link Customer to Account as third party, landlord, responsible party, etc.	Std	
58	Provides ability to drill-down to related accounts and premises	Std	
59	Provides ability to link unlimited number of accounts to a customer	Std	
60	Displays user defined messages based on customer status and information	Std	
61	Displays the customer status relative to each linked account (active, inactive, pending, prospective, vacant)	Std	
62	Provides ability to transfer related accounts between customers	Std	
63	Provides ability to export customer data into spreadsheet format for manipulation	Std	
64	Provides ability to merge two customers when duplicates are found with all affected records updated with the correct customer information	Future	
65	Provides consolidated data and screen view for the purpose of one call resolution, including various customer views based on customer type, types of services, billing/pmt/financial info, etc.	Std	
66	Provides ability to move customer information from one address to another address	Std	
67	Provides ability to track and resolve return mail, entering new address with minimum clicks	Std	

Customer Inquiry			
	Provides ability to search for customers by standard fields (name, SSN, drivers license #) or any combination of fields (e.g. name and SSN) including:		
68	> Co-Applicant Name	Std	
69	> Email	Std	
70	> Third-Party Names (owner name also)	Std	
71	> Customer Number	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor
72	> Account Address	Std	
73	> Premise Address	Std	
74	> Meter Number	Std	
75	> Sanitation Card Number	Std	
76	> Premise Number	Std	
77	> Premise Parcel Number	Std	
78	> Legacy CIS Account Number	Std	
	Supports multiple Account views including the following:		
79	> Billing and payment history	Std	
80	> Adjustments	Std	
81	> Deposits	Std	
82	> Consumption and usage history (in total)	Std	
83	> Consumption and usage history (by meter), including sub meters and showing relationships	Std	
84	> Account notes/comments	Std	
85	> Delinquency history	Std	
86	> Service Orders	Std	
87	> Contacts	Std	
88	> Premise or location history, including Provides ability to view location on GIS map	Std	
89	> Actual bill image history	Std	
90	> Services view (e.g. Water, Sewer, etc.)	Std	
91	> Device view (Water Meter 1, Water Meter 2, ERT #1, ERT #2,, etc.)	Std	
92	> Consolidate account view of all related accounts	Std	
93	Provides ability to drill down to the lowest billable charge and billing determinants including all rates and fees	Std	
94	Flags related Accounts that are in delinquency or have bad debt	Std	
95	Provides a "quick review" account screen that answers the most common account questions and provides quick "drill down" navigation details	Std	
96	Provides analytics on customer interactions	Std	
97	Provides ability to have an account alias	Std	
98	Provides ability to generate tasks in the appropriate queue for CIS users and receive acknowledgement when the task is complete	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Service

Item	Requirement	Response	Vendor
99	Provides ability to prevent notes from being deleted	Std	
100	Provides ability to create customer specific notes and send to Mobile	Std	
	Customer Outreach		
101	Provides ability to send messages and notifications to customers	Std	
102	Provides ability to send notifications via drawing a polygon on map	Std	
103	Provides ability to send customer-specific messages via text, email, mail, and/or voice	Std	
104	Provides ability to configure bill messages to specific customer groups through ad hoc queries	Std	
105	Provides ability to set and manage customer notification preferences	Std	
106	Provides ability to set and manage customer language preference (min Spanish)	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor Comments
	Account Types		
	Provides ability to support the following account types:		
1	> Standard Billing Account (normal utility billed account based upon services)	Std	
2	> Mobile Accounts (accounts without a permanent premise attached - Portable Meters, Construction meters, etc.)	Std	
3	> Non-utility Accounts (products or services not utility bill related)	Std	
4	> Responsible Party Accounts: Landlords, Owners, etc.	Std	
5	> Residential	Std	
6	> Multi-Family Residential	Std	
7	> Commercial	Std	
8	> Industrial	Std	
9	> Governmental	Std	
10	> Public Institutions (e.g. Church)	Std	
11	> Septage Hauler	Std	
12	> No charge accounts (e.g. inter-city departments)	Std	
13	> User Defined Account Types	Std	
	Establishing New Account		
14	Provides ability to receive new account data (premise/customer) from Community Development application in order to establish services prior to activation	Std	
15	Provides ability to track service order for the installation where an account does not yet exist	Std	
16	Allows payment of fees without requiring billing; receivables can be generated on demand	Std	
17	Allows applicant to pay for multiple premises at one time	Std	
18	When an applicant pays for multiple premises at one time, provides ability to easily view which accounts/premises have had their fees paid	Std	
19	Allows applicant to pay for a single premise if multiple are available	Std	
20	Allows new fees to be added to the application after the initial assessment and payment	Std	
21	Installation process shall feed easily into the establishment of new accounts for billing (describe approach in Vendor Comments)	Std	
	Account Setup		
22	Assigns a permanent unique account number that remains with the account regardless of premise location when new accounts are established	Std	
23	Allows for three part relationship of customers, accounts and premises, each with records and entities, existing independently	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
24	Allows each account relationship to be user defined. (e.g., owner, bill-to, tenant, renter, etc.)	Std	
25	Provides ability to have credit history and account information follow customer including when the account is associated with more than 1 customer record (e.g. roommates; husband/wife-divorces)	Std	
	Information collected relating to accounts shall be used to identify unique billing entities for billing services, both utility and non-utility, and includes the following data elements in addition to standard elements:		
26	> Co-Applicant Name	Std	
27	> Third-Party Names	Std	
28	> Delivery Point	Std	
29	> Phone Number	Std	
30	> Mobile Number	Std	
31	> Fax Number	Std	
32	> SSN or FID	Std	
33	> Drivers License Number, State ID	Std	
34	> Drivers License expiration date	Std	
35	> Drivers License DOB	Std	
36	> SIC	Std	
37	> Legacy Account Number (alphanumeric, indicate limit if any)	Std	
38	> Employer Name and Number	Std	
39	> Account Status	Std	
40	> Account Type	Std	
41	> Health Alert (ex. dialysis patient)	Std	
42	> Establish Date	Std	
43	> Terminate Date	Std	
44	> Last Bill Date	Std	
45	> ACH/payment information	Std	
46	Supports completion or delivery of service application or a customer application for new services from multiple locations (e.g. email, web, IVR)	Std	
47	Provides ability to define business rules for special handling accounts such as landlords and key accounts (e.g. connect fee, routing of key account requests)	Std	
48	Provides ability to customize due dates from standard billing cycle	Std	
49	Provides ability to create accounts by copying other accounts	Std	
50	Provides ability to create accounts by copying a customer	Std	
51	Allows one primary account relationship to be assigned as the "Bill-To" relationship to receive the accounts bills	Std	
52	Allows each account relationship to be user defined (e.g. owner, bill-to, tenant, etc.)	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
53	Allows each account relationship to be flagged to receive a past due notification	Std	
54	Allows each account relationship to be flagged to receive delinquency/shut-off notices	Std	
55	Allows each account relationship to be flagged to receive a start of service notification	Std	
56	Allows each account relationship to be flagged to receive a termination of service notice	Std	
57	Allows accounts to have multiple "Bill-To" addresses (e.g. winter & summer, primary and secondary) that will be used based on date ranges	Std	
58	System shall forward refunds checks for overpays/closed accounts to primary financially responsible person	Std	
59	Provides ability to reactivate an account that was closed (due to cutoff for non-payment etc.)	Std	
60	Provides ability to note certain customers/accounts as a confidential customer (judges, police, domestic violence etc.) with an easily created flag and require passcode to access information	Std	
61	Tracks the history of status changes	Std	
62	Provides ability to initiate service for the premise with an easy to follow process and limited number of screens	Std	
63	Provides mechanism to allow accounts to bill consumption based services without a premise (e.g. portable meters)	Std	
64	Provides ability to support, bill and cancel/rebill, based upon the number of units	Std	
65	Two accounts shall not be active on the same premise at the same time for the same meter/device	Std	
66	Allows accounts to be established with no services in the case of new premise installs	Std	
67	Accounts set up for new service installs can bill line items or rates without having a service	Std	
68	Accounts can be automatically activated upon completion of the appropriate service order (e.g. new install)	Std	
69	Accounts can be flagged as seasonal or interim accounts	Std	
70	Accounts can be flagged as key accounts	Std	

Account Maintenance

General

Account statuses shall be updated automatically by system events including:

71	> Move-in and move-out service orders	Std	
72	> Shut-off service orders	Std	
73	> Meter maintenance processing	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
74	Provides ability to maintain and update seasonal account status	Std	
75	Provides ability to automatically reactivate seasonal accounts based on seasonal service dates for that account	Std	
76	Provides ability to conduct mass changes across related or grouped accounts: Address, Name, Phone Number, etc.	Std	
77	Appropriate user level security shall be required to make changes to account details	Std	
78	Allows action items or ticklers to pre-set tasks for future action on accounts	Std	
79	Allows automated actions for certain events (e.g. a return check will cause a letter to be generated and the credit score changed)	Std	
80	Provides ability to attach / view supporting documentation relating to a customer or account (e.g. credit score, rental/lease agreement, etc.)	Std	
81	Provides ability to easily view balance due by service	Std	
82	Provides ability to map old account numbers (previous system) to new account numbers	Std	
	Exemptions		
83	Provides ability to exempt individual accounts or group of accounts from late charges/penalties	Std	
84	Provides ability to exempt individual accounts or group of accounts from disconnect	Std	
85	Provides ability to exempt individual accounts or group of accounts from taxes	Std	
86	Provides ability to exempt individual accounts or group of accounts from surcharges	Std	
	Account Alerts & Messages		
87	Displays delinquency status on account and payment screens	Std	
88	Displays bad debt status on account and payment screens	Std	
89	Includes alerts, highlightling, or flagging to indicate bad debt that has been paid in full	Std	
90	Displays tampering status on account, meter, and premise screens	Std	
91	Displays credit score on account screen	Std	
92	Displays "Cash Only" on account screens, payment screens. "Cash Only" shall not allow any other type of payment	Std	
93	Displays alert for no credit card accepted on account screens	Std	
94	Displays open service order alerts on account screens	Std	
95	Supports user defined alerts and messages that display on account screens	Std	
96	Provides ability support health, senior and user defined alerts	Std	
97	Supports user defined alerts and messages that display on payment screens	Std	
	Master Accounts		
98	Allows a single master account (or customer) to be established with several sub-accounts	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
99	Allows a single master account to be responsible for the receivables of the sub-accounts	Std	
100	Provides history of master/sub-account relationships	Std	
101	Provides master summary account handling and total relationship management from account set-up, establishing deposits, processing payments and delinquency processing	Std	
102	Maintains credit histories of subordinate accounts independently from the master account credit history	Std	
103	Allows a sub-account to be easily be associated/disassociated with a master account	Std	
104	Provides ability for ownership of sub account to revert to master automatically at time of sub move out	Std	
105	Allows establishment of a master account which is responsible for premises in multiple jurisdictions	Std	
106	Allows establishment of a master account where the master does not have a premise in the Utility's service area	Std	
	Account Transfer		
107	Provides ability to transfer service from one customer account to another based on user defined transfer dates including retroactive dates	Std	
108	Provides ability to generate a notification document to the third party when a service is transferred or disconnected	Std	
109	Provides ability to optionally generates a summary letter to be given or sent to customer/owner for confirmation of service transfer or initiation	Std	
110	Provides ability to allow user defined or system generated last meter readings for "transfer from" and/or "transfer to" service	Std	
111	Provides ability to transfer any outstanding balances with the customer to the new account	Std	
112	Provides ability to allow the user to group multiple accounts/premises to be closed or transferred to another account	Std	
113	System shall automatically revert to landlord during account transfers	Std	
	Account Close		
114	Provides ability to close an account without a transfer of service	Std	
115	Provides ability to reopen a close account	Std	
116	Provides ability to have an account transfer back to owner based upon service when closing	Std	
	Account Identification		

In addition to standard account data, Account identification can be obtained by the following data points:

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
117	> Co-Applicant Name	Std	
118	> Third-Party Names	Std	
119	> Meter Number	Std	
120	> Equipment Number	Std	
121	> Location/Premise/Folio ID	Std	
122	> Standard Industry Code (Revenue Class)	Std	
123	> Premise Parcel Number	Std	
124	> ERT/Register Number	Std	
125	> Telephone Number (all types)	Std	
126	> Social Security Number/Federal ID#	Std	
127	> Drivers License Number	Std	
128	> Service Order Number	Std	
129	> Doing Business As (D.B.A.) or Nickname	Std	
130	> GIS X,Y Coordinate	Std	
131	> Premise Number	Std	
132	> Old Account Number from previous System	Std	
133	> Tax ID #	Std	
134	> Tax Exemption Status	Std	
135	> Email address	Std	
136	> Associated Document Number(s) for example permits	Std	
137	> Property Owner	Std	
	Multiple account views are supported including the following:	Std	
138	> Billing and payment history	Std	
139	> Adjustments	Std	
140	> Deposits	Std	
141	> Consumption and usage history (in total by service type)	Std	
142	> Consumption and usage history (by meter)	Std	
143	> Delinquency history	Std	
144	> Service Orders	Std	
145	> Contacts	Std	
146	> Premise or location history	Std	
147	> Actual bill image history	Std	
148	> Services view (e.g. Water, Sewer, etc.)	Std	
149	> Device view (e.g. Water Meter 1, Water Meter 2, etc.)	Std	
150	> Consolidate account view of all related accounts	Std	

Account Status

Item	Requirement	Response	Vendor
	Provides for the following account statuses:		
151	>Active / Inactive / Pending	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
152	>Final Billed	Std	
153	>Disconnected for non payment	Std	
154	>Disconnected for safety (backflow, condemned, etc.)	Std	
155	>In Collections	Std	
156	>Write Off	Std	
157	>Bankruptcy	Std	
158	>Pending final	Std	
159	>New account not billed	Std	
160	>Non metered	Std	
161	>Transfers	Std	
162	>Landlord	Std	
163	>Closed	Std	
164	>On hold (vacation hold)	Std	
165	>User defined statuses (indicate how many are available)	Std	

Temporary Accounts

Temporary Accounts

Item	Requirement	Response	Vendor
166	Allows creation of temporary customers at construction sites, etc. and the setup of workflows for these accounts. Provides ability to set timeframes and notifications related to the life cycle of the account.	Std	
167	Supports user defined temporary services, within a user defined data range that automatically revert back to the original status on the ending date of range	Std	
168	Provides workflow for conversion of temporary to permanent account. Allows billing after inspection, and provides ability to automatically deploy notifications and easily view and manage conversion	Std	

Account Processing

Service Offerings

Item	Requirement	Response	Vendor
169	Provides ability for the system to automatically identify the services available within a user inputted street block range	Std	
170	Provides ability for the user to open all or multiple services for the account - services can be connected via a single conversation with the customer	Std	
171	Provides ability to open specific services without closing others (subject to user defined limitations)	Std	
172	Provides ability to review applicable rates/pricing with the customer for the services they are interested in	Std	

Program Offerings

Item	Requirement	Response	Vendor
173	Provides all program offerings which may be relevant to the customers situation can be reviewed on-line	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
174	Provides ability to automatically generate and send documents related to the program to applicable customers via mail, email, or fax	Std	
175	Reviews financial aspects of the programs the customer is interested in	Std	
176	Establishes customer on any/or all selected programs (e.g. pre-authorized bank draft, customer selected due date, etc.)	Std	
177	Provides ability for customer to set up their own due date	Std	
178	Provides ability to capture landlord data in the system related to an account	Std	
Account Views			
179	Allows access to account information from a consolidated view to a detailed view	Std	
180	Provides consolidated view of a master account. All sub-accounts will be included	Std	
181	Provides consolidated view of a customer with multiple accounts. All accounts may be billed separately	Std	
182	Provides consolidated views of services (e.g. Water, Sewer, etc.)	Std	
183	Provides account views by meter, services or equipment view and view of completed/pending work orders by meter/equipment	Std	
184	Provides access to a view of the exact bill as it was produced and distributed to the customer	Std	
185	Provides access to the past "x" years (parameter driven) of customer consumption history, read dates, reading, and billing information displaying the most recent information first	Std	
186	Provides both detailed and total combined consumption across multiple meters and multiple registers	Std	
187	Provides view of account payment history (ex. historical payment amounts, types, dates)	Std	
188	Provides view of how the payment allocation was applied	Std	
189	Allows automatic payment allocation if a particular service's debt was reduced due to an adjustment.	Std	
190	Provides view of cash payment transactions including up to the minute postings - processing is not required to view the payments made	Std	
191	Provides view of deposit information including an estimated refund date	Std	
192	Provides ability to view deposit history and deposit letters sent to customer	Std	
193	Provdes view of account billing history	Std	
194	Provides view of a statement of account	Std	
195	Provides view of the past 2 years (variable) of customer account transactions (including adjustments)	Std	
196	Provides view of an account credit history	Std	

Exhibit 3 - System Requirements Spreadsheet

Accounts

Item	Requirement	Response	Vendor
197	Provides view of an "Account at a glance". Information can include: A/R, deposit info, adjustments, payments, credit history, credit score etc. and can be configured based on user's role	Std	
198	Provides ability to print a formatted statement of account for example: billing/consumption/payment history for the customer displaying the most recent information first. Allows user-defined criteria for what information is included in account statement	Std	
199	Provides ability to print a formatted statement of account for court cases, with standardized format for each account, to enable quick response time for information requests	Std	
200	Provides access to historical service and meter orders for an account	Std	
201	Provides access to pending service and meter orders for an account	Std	
202	Provides view of charges and fees pending and not yet billed (e.g. deposits)	Std	
203	Allows for groups of "special" accounts to be monitored by a distinct set of customer service reps (large commercial, VIP, etc.)	Std	
204	Provides a flexible, user controlled, mechanism to purge history records older than "x" months	Std	
205	Provides ability to consolidate top tier customers or any specific customer for reporting purposes	Std	
206	Provides ability to send an updated bill or statement of accounts to third parties that shows any payments made up to the request date	Std	
207	Provides ability to scan documents (e.g. drivers license, etc.) and attach to account	Std	

Master Summary Accounts:

Item	Requirement	Response	Vendor
208	> Provides ability to view all accounts associated with master summary account without running a report	Std	
209	> Provides ability to view amount due on each account	Std	
210	> Provides ability to sort receivables newest to oldest	Std	

Exhibit 3 - System Requirements Spreadsheet

	Premises		
Item	**Requirement**	**Response**	**Vendor Comments**
	Premise Types		
	Provides ability to handle several types of premises/locations including:		
1	> Permanent Premises (land parcels, addresses, user defined types)	Std	
2	> Temporary Premises (Construction sites, portable meters etc.)	Std	
3	> Non-identifiable Premises (medians, rights-of-way, bare land, etc.)	Std	
4	> User defined types	Std	
	New Premises		
5	Provides ability to communicate information from permitting system and auto populate fields as part of premise creation process	Std	
6	Provides ability to communicate premise location, parcel owner/address information, and planimetrics from GIS	Std	
	Allows the setup of premises only for authorized users. Premise Information contains the following data elements in addition to standard premise fields:		
7	> System Assigned Unique Premise Number	Std	
8	> Key Word or Phrase	Std	
9	> Intersection	Std	
10	> Complex Address (fractional house number, suite number, etc)	Std	
11	> Space Number (e.g. lot)	Std	
12	> Provides ability to store multiple space number fields (e.g. 2nd flr apt 101)	Std	
13	> Meter Route	Std	
14	> User Notes, with user-defined character limit	Std	
15	> Jurisdiction (e.g., tax authority)	Std	
16	> County	Std	
17	> Inside/Outside City Flag	Std	
18	> Create Date	Std	
19	> Terminate Date	Std	
20	> Last Bill Date	Std	
21	> Legacy CIS Premise Number	Std	
22	> GIS X,Y Coordinates	Std	
23	> Subdivision Name	Std	
24	> Phase Number	Std	
25	> Block Number	Std	
26	> Lot Number	Std	
27	> Lot Size (e.g. acreage)	Std	
28	> Pressure zone	Std	

Exhibit 3 - System Requirements Spreadsheet

Premises

Item	Requirement	Response	Vendor
29	> Region (User defined) (Control Table Verified)	Std	
30	> District (User defined) (Control Table Verified)	Std	
31	> Premise/Dwelling Type (e.g. mobile home; single family)	Std	
32	> Work Zone (Field Service Area) (Control Table Verified)	Std	
33	> Number of units for multi dwelling	Std	
34	> Area (User Defined) (Control Table Verified)	Std	
35	> User Defined Fields	Std	
36	Allows the set up of a premise with parcel information from GIS	Std	
37	Allows the set up of a premise with just the parcel information	Std	
38	Allows system administrator to tag required fields and the system shall not activate premise record until all required fields have been entered	Std	
39	Provides ability to consolidate multiple premises and associated services into one premise (ex. duplex with two meters converted to home with one meter)	Std	
40	Allows incomplete premise information while status is pending, active status can only be selected when required data elements are entered	Std	
41	Provides ability to create premise by copying another premise	Future	
42	Provides ability to import premise information from delimited file	Future	
43	Provides ability to create a premise with an easy to follow process and limited number of screens	Std	
44	Provides ability for a premise to have an unlimited number of related customers associated to the premise (e.g. individual apartment units where each unit has an interest in the services provided yet are not directly responsible for the payment of the bill)	Std	
45	Provides ability to establish a premise with a master meter serving multiple tenants where each can be billed to each tenant on a fractional basis based on the number of active tenants	Std	
46	Allows premises to be assigned one or many services	Std	
47	Identifies vacant properties through communication with land management/permitting application	Std	
48	Allows only correct services to be available at a premise based on user-defined parameters (ex. customers outside City limits can only be charged for Sanitation)	Std	
49	Allows a premise to have multiple services of the same type	Std	
50	Allows services and associated rates to remain with the premise during move in/out unless changed by the user	Std	
51	Provides ability to assign premise one or many surcharges (specify how many in comments)	Std	
52	Provides ability to assign notes to a premise	Std	

Exhibit 3 - System Requirements Spreadsheet

Premises

Item	Requirement	Response	Vendor
53	Allows Premises to be integrated with GIS	Std	
54	Allows Premises to be viewed with GIS maps	Std	
55	Provides ability to attach electronic files (documents, pictures, etc.) to the premise record	Std	
56	Provides ability to add new addresses en mass upon completion of planning or service construction	Std	
57	Provides ability to download all location-specific information stored in GIS	Std	
58	Creates and assigns a unique premise identifier number, which shall never be reused	Std	
59	Provides ability to view all available services with the Premise	Std	
Premise Maintenance			
	Updates premise statuses automatically, triggered by system events including:		
60	> Move-in and move-out service orders at premise level	Std	
61	> Shut-off service orders at premise level	Std	
62	> Meter maintenance activities - e.g. pulled meter	Std	
63	> Sanitation activities - e.g. deliver garbage charts	Std	
64	Provides mechanism to conduct mass changes across Premises (e.g. address components, classes, zones and route number, etc.)	Std	
65	Provides ability to split and merge premises	Std	
66	Provides ability for premise move in/out change to affect one or more of the premise relationships (owner, bill-to, and tenant) as the user dictates	Std	
67	Allows changes to services available at premise	Std	
68	Premises shall not be deleted with an active account	Std	
69	Premises shall not be deleted while services are active	Std	
70	Premises shall only be created or deleted with special user authority	Std	
71	Provides ability for a user with appropriate security to "lock" a premise so that certain activity cannot occur. (e.g. no customer move-in until unlocked)	Future	
Service Location/Premises Entity			
72	Automatically auto populate new premises using GIS data	Std	
73	Automatically assigns a unique premise or property id or service address id number for new service address record	Std	
74	Allows entry of new service address information on a partial basis, the system understands the address is pending activation following successful completion of construction activities (when a subdivision is created)	Std	

Exhibit 3 - System Requirements Spreadsheet

Premises

Item	Requirement	Response	Vendor
75	Allows establishment of multiple customer premises for a single legal parcel (e.g. shopping mall)	Std	
76	Allows for tracking utility services to temporary sites including: construction sites, fairs, Christmas tree lots, plumbing pressure tests, or other similar uses where the installation of a permanent service connection is considered impractical	Std	
77	Allows for update of service address information for entire selected geographical area as specified, for example a change in street name, or adding postal code	Std	
78	Provides ability to identify status of the premise with notification of when it becomes available for customer move in	Std	
79	Allows multiple contacts, including third party contacts, related to the service address.	Std	
80	Provides service unit equivalent information for use in cost of service studies (e.g. fixture counts, number of connections, square footage of the facility etc.)	Std	
81	Provides historial premise information aligning with city's data retention requirements	Std	
82	Provides ability to view impervious area in system including history	Std	
83	Provides ability to view and maintain a count and history of Abandoned/Abolished Services by type. (e.g. frozen on property side)	Std	
84	Provides ability to generate bilingual (English or Spanish) bills, letters and notices for locations in a specific geographic area	Std	
85	Provides ability to flag an individual premise or account as vacant, or all premises or accounts on a parcel as vacant, and to not allow service by request of property owner. User must have proper permissions	Std	
86	Provides ability to assess taxes or fees by Service Districts, Taxing Authorities, Cities, Counties, etc.	Std	

Service Location / Premises Search			
	Allows CSR access to premise information. The following access paths have been identified:		
87	> Premise Number	Std	
88	> Premise Address Components	Std	
89	> Reading Route	Std	
90	> Area	Std	
91	> Keyword or Phrase (First Bank Building)	Std	
92	> Dimensional Location (x,y Coordinates)	Std	
93	> Service Order Number	Std	

Exhibit 3 - System Requirements Spreadsheet

Premises

Item	Requirement	Response	Vendor
94	> Meter/Equipment	Std	
95	> Backflow Equipment	Std	
96	> Internal Map number	Std	
97	> Parcel ID (multiple premises may exist on single legal parcel)	Std	
98	> Legacy CIS Premise Number	Std	
99	Allows partial word searches	Std	
	Supports multiple premise views including the following:		
100	> Billing and payment history	Std	
101	> Consumption and usage history (in total by service)	Std	
102	> Consumption and usage history (by meter)	Std	
103	> Service Orders	Std	
104	> Account history	Std	
105	> Services view (e.g. Water, Sewer, etc.)	Std	
106	> Service Point view (e.g. Water Meter 1, Water Meter 2, etc.)	Std	
107	> Meter history	Std	
108	> Service order history for the premise can be viewed by premise record without the need to open multiple inactive accounts	Std	
109	> Geopolitical Area (e.g. Service Districts, Taxing Authority)	Std	
110	> Service Address components	Std	
111	> Alias address (AKA; also known as)	Std	
112	> Parcel number	Std	
113	Tracks premises by street	Std	

Service Entity

Item	Requirement	Response	Vendor
114	Provides ability to associate multiple service points with a service address	Std	
115	Provides ability to associate non-metered, as well as, metered service points at a service address	Std	
116	Allows multiple meters for each service point at each address	Std	
117	Allows multiple service points for each meter at an address (a compound meter with different registers)	Std	
118	Allows multiple non-metered service points at each address	Std	
119	Allows master meters at a service address	Std	
120	Allows multiple master meters at a service address	Std	
121	Allows shared meters (one with a subtraction meter) for multiple customers	Std	
122	View the past and present classifications of the premise for the service point	Std	
123	Accommodates rates at the service point	Std	
124	Accommodates service order work areas (e.g., districts) for the service point	Std	

Exhibit 3 - System Requirements Spreadsheet

Premises

Item	Requirement	Response	Vendor
125	Provides ability to maintain a meter seal # and seal date at the service point (per meter)	Std	
126	Provides an entry access code by service point	Std	
127	Provides a meter location code by service point	Std	
128	Provides a meter reader instruction code by service point	Std	
129	Provides special meter reader instructions by service point	Std	
130	Provides a special message display indicator by service point	Std	
131	Provides a text prompt indicator by service point	Std	
132	Provides ability to initiate an order for a specific service / service point without affecting the other services received	Std	
133	Tracks consumption at a service point	Std	
134	Allows routes by service point	Std	
135	Allows reading sequence by service point	Std	
	Service Location Attributes		
136	Provides ability to classify the service at the Premises by type of business or SIC code (e.g., car wash, restaurant, manufacturing, etc.)	Std	
137	Maintains past and present classifications regardless of service status	Std	
138	Identifies the customer being billed for the service	Std	
139	Displays meters or equipment installed related to the service	Std	
140	Identifies location of service (e.g. pit meters)	Std	
141	Designates whether the service point (e.g. installed meter) can be estimated	Std	
142	Displays the most recent reading schedule/method (e.g. handheld download date)	Std	
143	Designates whether the service is metered or non-metered	Std	
	Historical Service Information		
144	Provides historical review of meters/equipment located at a premise for a specific period of time - The historical timeframe is a table parameter which is modifiable	Std	
145	Provides view of all previous and present accounts at a premise	Std	
146	Provides view of all usage history by service	Std	
147	Maintains reading and consumption and dollars for "x" number of years history (parameter driven)	Std	
148	Provides estimated and/or projected annual and average consumption by meter, customer, and by premise	Std	
149	Provides view of current and historical Service Location/Premise Attributes	Std	

Exhibit 3 - System Requirements Spreadsheet

Services

Item	Requirement	Response	Vendor Comments
	Service Types		
	Supports all utility related services including:		
1	>Metered Water	Std	
2	>Unmetered Water	Std	
3	>Wastewater	Std	
4	>Metered Wastewater	Std	
5	>Recycling	Std	
6	>Roll-off	Std	
7	>Dumpter	Std	
8	>Trash Collection	Std	
9	>Landfill	Std	
10	>Irrigation	Std	
11	>Stormwater	Std	
12	>Fireline	Std	
13	>Large Volume Water	Std	
14	>Septic	Std	
15	>Backflow	Std	
16	Provides ability to add services	Std	
17	Allows services to exist independent of meters and rates - meters and rates are attached to services	Std	
	Service Setup		
	Allows authorized users to establish one or more individual services available at a premise and each service shall include the following data elements:		
18	> Service Type (control table validated)	Std	
19	> Service Size (control table validated)	Std	
20	> Service Status (control table validated)	Std	
21	> Service Activated (connect) Date	Std	
22	> Service Deactivated (disconnect) Date	Std	
23	> Last Reading Date	Std	
24	> Last Bill Date	Std	
25	> Service Location (text at least 75 characters)	Std	
26	> GIS X,Y Coordinate	Std	
27	> Service Creation date	Std	
28	> Service location instruction (gate code, key number, etc.)	Std	
29	> Service comment (free-form or coded) with option to create associated alert	Std	
30	> Service Installation Work Order Number	Std	
31	> Reading Route	Std	

Exhibit 3 - System Requirements Spreadsheet

Services

Item	Requirement	Response	Vendor
32	Allows services to be automatically created and associated with other services- e.g. Wastewater, Trash and Recycling created for each Water account	Std	
33	Additional trash/recycling services can be added to accounts, communicated by an interface	Std	
34	Provides the ability to bill for services not attached to a premise with recurring (ex. septage haulers) or one-time (ex. damage claim) payments	Std	
35	Allows services to be limited to specific account/customer types (e.g. Stormwater accounts only to property owner)	Std	
36	Allows multiple services at a premise	Std	
37	Allows multiple services on an account	Std	
38	Allows multiple meters on a single service	Std	
39	Allows metered and non metered services at a premise	Std	
40	Allows multiple metered services at a premise	Std	
41	Allows multiple non metered services at a premise	Std	
42	Allows other inventory devices at a service point, (e.g., backflow device, detector check valves, remote disconnect devices, etc.)	Std	
43	Provides ability to associate unique rates to each service	Std	
44	Provides ability to associate unique rates to each meter on a service	Std	
45	Allows master meters at a service	Std	
46	Allows compound or multi-register meters at a service	Std	
47	Allows multiple meters to accumulate consumption and bill under one rate or to not accumulate consumption and be independent	Std	
48	Provides ability to auto-assign read routes by each service type with override cap	Std	
49	Provides start and stop dates for each service which can be different than other services on the account	Std	
50	When finalling and initiating a service the charges shall prorate appropriately	Std	
51	Allows temporary services. Provides ability to send electronic notification when the service period has expired	Std	
52	Allows additive meters at a service	Std	
53	Allows deductive meters at a service	Std	
54	Provides ability to bill different services at a premise to different customers (landlord / tenant)	Std	

Service Maintenance

Item	Requirement	Response	Vendor
55	Provides ability to initiate specific services without initiating others	Std	
56	Provides ability to final specific services without finalling others	Std	
57	Provides ability to move service out and in on same day	Std	

Exhibit 3 - System Requirements Spreadsheet

Services

Item	Requirement	Response	Vendor
58	Allows specific services to be default at a premise; other services are removed when a new customer is moved in to the premise and only default services shall be automatically activated on customer move-in	Std	
59	Tracks all usage by service regardless of associated meter	Std	
60	Tracks service orders by service	Std	
61	Tracks the date the service was activated (connected) based on the move in date or user defined date	Std	
62	Tracks the date the service was deactivated (disconnected) based on the move out date or user defined date	Std	
63	Allows service status to be automatically updated by service order activities (e.g. meter change out orders, meter removal orders, etc.)	Std	
64	Allows any combination of services to be active or inactive without affecting the other services	Std	
65	Allows reading route resequencing from meter reading interface	Std	
66	Provides a unique permanent record for each services in the database - a meter assigned to a premise does not count as a service	Std	
67	Provides ability to configure services by jurisdiction	Std	
68	System shall require proper security for deletion of services	Std	
Service Inquiry			
69	Provides consumption history for each service	Std	
70	Provides meter history for each service	Std	
71	Provides service orders for each service	Std	
72	Provides meter reading history for each service	Std	
Backflow			
73	Provides ability to generate backflow test orders from CIS	Std	
74	Provides ability to generate and track surveys and inspections and their due dates, tie to SIC codes from Premise	Std	
75	Provides ability to preschedule back flow test work orders to be auto generated	Std	
76	Provides ability to set multiple schedules for testing and inspections based on a user defined parameter, e.g. every 1 year, 5 years	Std	
77	Provides ability to track backflow testing process including but not limited to letters, test results forms, shut offs	Std	
78	Provides ability to auto generate backflow test result letters	Std	
79	Provides ability to store pdf of test results	Std	
80	Provides ability to have testing form on-line and enter queue for testing validation review	Std	

Exhibit 3 - System Requirements Spreadsheet

Services

Item	Requirement	Response	Vendor
	Consumption (Usage) Tracking		
81	Tracks and displays usage by service	Std	
82	Tracks and displays usage by meter	Std	
83	Tracks and displays usage by account	Std	
84	Tracks the usage on a submeter but exempt the meter from billing	Std	
85	Tracks usage by region, jurisdiction, and plant	Std	
86	Allows consumption for the master meter to be easily traceable to its sub meters.	Std	
	Tap Records		
87	Allows taps to be assigned to a service and tracked by service	Std	
	Enables generation of Tap records automatically from Service Orders or manually including the following data elements:		
88	> Tap code- assigned by CIS to newly generated Tap records	Std	
89	> Status – type of work performed in the field	Std	
90	> Date installed	Std	
91	> Multi-Meter – whether there is more than one meter on the manifold	Std	
92	> Legacy Tap – old/original tap record	Std	
93	> Comments – comments added to work orders	Std	
94	> Location –approximate tap location	Std	
	Sub-Metering, Irrigation, Exclusion Metering		
95	System shall be able to calculate bill adjustment to water/wastewater consumption once submeter reading and actual meter reading is obtained	Std	
96	System shall be able to identify accounts which are currently receiving wastewater/water submetering credits	Std	
97	System shall be able to accept readings manually or electronically from non city owned devices to calculate credit	Std	
98	System shall have an escalation notification process if required submeter readings have not been received	Std	
99	System shall be able to track information [manufacturer/type of meter] used for submetering	Std	
100	System shall allow for activation/deactivation of billing credits due to non compliance with process	Std	
101	System shall have a service order type to establish meter in system	Std	

Exhibit 3 - System Requirements Spreadsheet

Devices

Item	Requirement	Response	Vendor Comments
Device Types			
	The system shall accommodate various device types. The following device types are included:		
1	> Water Meters	Std	
2	> Wastewater Meters	Std	
3	> Temporary Hydrants	Std	
4	> Irrigation Meters	Std	
5	> Leak detection	Std	
6	> Test Meters	Std	
7	> Portable Meters	Std	
8	> Construction Meters	Std	
9	> Flushing meters, both utility owned and private owned	Std	
10	> Detector Check Valves	Std	
11	> Compound Meters (More than one register)	Std	
12	> Backflow Devices	Std	
13	> Effluent Meters	Std	
14	> Deductive Meters	Std	
15	> Registers	Std	
16	> Transponders/Encoder	Std	
17	> Remote turn off/on at meter	Std	
18	> Garbage carts	Std	
19	> Dumpster Carts	Std	
20	> Roll-Offs	Std	
21	> User Defined Device Types	Std	
Device Attributes			
22	Provides table validation of all device attributes including cross field validation on specific components, for example manufacturer, type and size validation	Std	
23	Allows no limits on the number of meters at a location, service point, or account	Std	
24	Stores serial number for all device types (e.g. meters, registers, ERT, backflow etc.)	Std	

Water Meter Attributes

Provides data storage and on-line review and update of all meter attributes.
Attributes may include:

Exhibit 3 - System Requirements Spreadsheet

	Devices		
Item	**Requirement**	**Response**	**Vendor**
25	> Meter Number	Std	
26	> Meter Type	Std	
27	> Meter Size	Std	
28	> Meter Manufacturer	Std	
29	> Manufacturer Serial No.	Std	
30	> Meter Model	Std	
31	> Digits	Std	
32	> Dials	Std	
33	> Number of Registers	Std	
34	> Register Id Number (AMR/AMI)	Std	
35	> Register Type (AMR/AMI/Direct Read)	Std	
36	> Transponder (Meter Transceiver) (Telemetering Interfaces)	Std	
37	> Purchase Date	Std	
38	> Warranty Date	Std	
39	> Cost	Std	
40	> Original Install Date (first installed date)	Std	
41	> Installed By	Std	
42	> Status	Std	
43	> Remove Date	Std	
44	> Install Date	Std	
45	> Device owner	Std	
46	> GIS X,Y Coordinate	Std	
47	> User Defined Attributes	Std	
48	Supports unique device ID's with leading zeros	Std	
49	Provides capabilities to support a routine testing program	Std	
50	Maintains sample test groups	Std	
51	Generates a maintenance service order based on next meter test date or scheduled maintenance date based on user defined parameter (e.g. 6 months, 1 year, etc.)	Std	
52	Indicates on the service order the need to exchange the meter based on a random sample test, age of meter, or other test determination. Update the attributes of the meter test group	Std	
53	Indicates testing of meters on "x" period - age - (parameter driven) is required and generate an order to field test the meter	Std	
54	Indicates testing of meters on "x" period - consumption - (parameter driven) is required and generate an order to field test the meter	Std	
55	Enables meter tests to be initiated by a customer request. Customer request will initiate a service order	Std	

Exhibit 3 - System Requirements Spreadsheet

Item	Requirement	Response	Vendor
	Devices		
56	Provides ability to view historical test results for a given meter and aggregate test results by meter type/size/model etc.	Std	
57	Displays device location, (southside of parking lot building, or long/lats)	Std	
58	Allows same device to be shared by multiple accounts for billing purposes. (and flag on device that shows that this is a shared device)	Std	
59	Allows individual meters on an account to be active or inactive independently of each other and location information to be displayed for inactive meter	Std	
	Meter Testing Results		
60	Provides a mechanism to record test results. Results include: test date, tester name, flow rates.	Std	
61	Provides ability to exclude meters from testing based on meter status	Std	
62	Allows for one or more comment messages to be associated with the meter test.	Std	
	Maintains meter test history that contains the following items:		
63	> Date submitted for test	Std	
64	> Person performing test	Std	
65	> Test results	Std	
66	> Date test completed	Std	
67	> Reason for test	Std	
68	> Test performed (different types of tests - Performance test, customer test)	Std	
69	> Meter problem code (allow user-defined and standard codes)	Std	
70	> Person requesting test	Std	
71	> Repair/recalibration date	Std	
72	> Repair/recalibration performed (type)	Std	
73	Supports recording of multiple test results for a given test scenario	Std	
74	Provides ability to generated a test result letter to the customer	Std	
75	Provides ability to manage fast/slow meter test result through workflow	Std	
76	Provides ability to identify and process adjustments for fast meter results	Std	
77	Provides a credit or a charge to the customers account based upon the results of the customer requested meter test	Std	
	Device Management		
78	Provides full inventory functionality for water meters, garbage carts and other miscellaneous devices	Std	

Exhibit 3 - System Requirements Spreadsheet

Devices

Item	Requirement	Response	Vendor
79	Provides for unique meter ID's for each inventory type, but allows for duplicate across types (a backflow and a water meter can have the same ID, but no water meter can have a duplicate ID to another water meter)	Std	
80	Automatically updates inventory of devices and device attributes using integrations with manufacturers and provides workflow related to inventory management	Std	
81	Provides ability to update meter location, information and workflow using integration with barcode scanners	Std	
82	Provides ability to validate meter location in system	Std	
83	Provides tracking and notification related to meter age, including an aging meters report	Std	
84	Provides tracking and notification to appropriate staff for meters or other devices "checked out" of warehouse	Std	
85	Provides ability for workflow to manage temporary hydrants tracking the 90 day review period. Provides ability to tag a temporary review needed in 90 days; no contact charge hydrant charge. If reviewed, review again in 90 day	Std	
86	Provides ability to track stolen backflow devices with regard to location last set, date and replacement backflow number.	Std	
87	Provides ability to re-order points for items such as locks in system that reach threshold of installed vs available	Std	
88	Provides ability to track device warranties information including the following: Warranty Start / Purchase Date, Warranty Termination Date and Extended Warranty Available	Std	

Backflow Device Attributes

Allows for the following backflow device attributes to be recorded in the system:

Item	Requirement	Response	Vendor
89	Premise Address	Std	
90	Mailing Address	Std	
91	Device Location	Std	
92	Manufacturer	Std	
93	Model	Std	
94	Serial #	Std	
95	Size	Std	
96	Condition (New, Existing, Replaced, Repaired)	Std	
97	Remarks	Std	
98	Device type (RPZ, DC, DCDA, RPDA)	Std	

Exhibit 3 - System Requirements Spreadsheet

	Devices		
Item	**Requirement**	**Response**	**Vendor**
99	List of device orientation (vertical, horizontal, etc.)	Std	
100	Containment Type (Is backflow preventer located between water meter and first branch? Y/N)	Std	
101	Water Service Type (Domestic, Fireline, Irrigation, Portable Meter)	Std	
102	Type of Fireline Class (1-6)	Std	
103	User defined Attributes	Std	
	Backflow Testing Results		
	Allows for the following backflow device result fields to be recorded in the system:		
104	Date and Time of test	Std	
105	Line Pressure at time of test	Std	
	Check Valve No 1		
106	>Condition	Std	
107	>Drop in PSI	Std	
	Check Valve No 2		
108	>Condition	Std	
109	>Drop in PSI	Std	
	Differential Pressure Release Valve		
110	>Opens at ___ PSI	Std	
	Pressure Vaccuum Breaker		
111	>Air inlet opens at ___ PSI	Std	
112	>Check Valve PSI	Std	
113	>Pass/Fail	Std	
114	>Tester Name	Std	
115	>Tester Certification #	Std	
116	>Tester Company phone and email	Std	
117	>Test Gauge Manufacturer	Std	
118	>Test Gauge Model #	Std	
119	>Test Gauge Serial #	Std	
120	>Test Gauge Calibration Date	Std	

Exhibit 3 - System Requirements Spreadsheet

Meter Readings and Meter Management

Item	Requirement	Response	Vendor Comments
Meter Reading			
1	Provides ability for users to create reading routes	Std	
2	Provides ability to automate meter route, sequence and reading schedule based on pre-determined billing cycle with override and provides ability to control calendar of available reading days	Std	
3	Allows accounts to be moved from one route to another on an individual basis	Std	
4	Provides ability to move accounts from one route to another on a group basis (en masse)	Std	
5	Provides ability to rebalance routes based on user defined factors (ex. out of cycle route automatically placed back into correct cycle)	Std	
6	System provides flag/alert for out of cycle route	Std	
7	Provides ability to define meter read sequences by type, customer, meter or route	Std	
8	Provides ability to integrate route management with GIS	Std	
9	Provides ability to update route information from the field (e.g. sequence, location comments, latitude, longitude, service type)	Std	
10	Provides interface file for downloading to an external meter reading system	Std	
11	Provides interface file for uploading from an external meter reading system	Std	
12	Allows manual meter reading entries	Std	
13	Displays current and previous meter reading date	Std	
14	Displays current and previous meter reading values	Std	
	Imports and tracks the meter reading type by the following:		
15	> Automated Meter Read	Std	
16	> Track meter reader ID	Std	
17	> Manual Meter Read	Std	
18	> Estimated Meter Read	Std	
19	> Phone Meter Read	Std	
20	> Customer Provided Meter Read	Std	
21	> User Defined	Std	
	Tracks the meter reading reason by the following:		
22	> Scheduled Meter Read	Std	
23	> Reread Meter Read	Std	
24	> Meter/Register Change out	Std	

Exhibit 3 - System Requirements Spreadsheet

25	> Customer Move In/Out	Std	
26	> User Defined	Std	
27	Tracks the cycle, pickup date and turn in date for all meters	Std	
28	Tracks the meter readings against the meter number	Std	
29	Tracks the meter readings against the register number	Std	
30	Tracks the meter readings against the ERT number	Std	
31	Provides a report of user defined exceptions for each meter reading cycle	Std	
32	Captures, tracks, and provides ad hoc reporting for meter age and condition (search by install date)	Std	
33	Provides ad hoc reporting for meter reading (ex. search by cycle)	Std	
34	Provides ability to automatically generate exception service orders based on specified parameters, with capability to update/modify parameters as necessary	Std	
35	Provides a report of orphan records where meter reads from an import file that could not be imported are accounted for and displayed for the user to fix	Std	
36	Allows for the setting of service order details for the exception service orders including the priority, department, resources, etc.	Std	
37	Provides ability to send notification/alert to designated staff if exception service order has not been closed within a specified time period for immediate action (resolve or override/clear exception)	Std	
38	Provides ability to send notifications to designated staff for exceptions requiring follow up action or communication with customer	Std	
39	Provides ability to flag and override exceptions that have been determined valid or already corrected	Std	
40	Provides ability to link readings to work/service order, account and premise (e.g. past readings can appear on a work/service order, readings taken on a work/service order can populate an account, etc.)	Std	

Mobile Access

Provides for mobile (e.g. laptop, pda, etc.) wireless access to following system functions (through integration with a 3rd party software):

41	> Service Order Processing	Std	
42	> Device Inventory (e.g. Meter, Register, ERT)	Std	
43	> Device Installations	Std	
44	> Device Change-Outs/Removals	Std	
45	> Customer Contacts	Std	
46	> Customer Inquiry	Std	
47	> Delinquency Notices	Std	

Exhibit 3 - System Requirements Spreadsheet

Provides ability for field personnel to enter meter reads for the following processes:

48	> Customer Move In/Out	Std
49	> Device Change-Outs (e.g. Meter, Register, ERT only)	Std
50	> Meter Re-reads	Std
51	> General Meter Reads (including warnings for exception conditions)	Std
52	Allows field personnel to work and complete service orders	Std
53	Provides ability to select and assign meter reading orders by route	Std
54	Provides for viewing and updating security to be defined by user or role	Std
55	Provides GIS map display through the mobile and CSR interface	Std
56	Provides GIS data elements through the mobile interface	Std
57	Provides ability to track vehicle location in route. Field officer locations/tracking is visible to CSRs as well as dispatch	Std
58	Provides for mobile (e.g. laptop, pda, etc.) download access to service orders	Std
59	Provides ability to maintain meter reading history with ERT only change outs and/or meter and ERT changeouts in history	Std
60	Provides ability to maintain marriage file between ERT and meter including updates for ERT and meter change outs in real time	Std
61	Real-time edits shall be subject to data validation (e.g. meter inventory)	Std

	Other		
62	Provides ability to take adjustments into account when averaging usage	Std	
63	Supports outbound messages to customer for meter trouble codes (low/high readings, leaks) based on configurable parameters	Std	
64	Provides ability to structure optimized routes	Std	
65	Provides ability to generate work orders for dead meters	Std	
66	MDM to create orders for exceptions errors	Std	
67	Provides ability to notify customer when meter reading is due	Std	
68	Provides ability for mobile units to create service orders in real time	Std	
69	Provides ability to have pop-up notification to close out pending work orders	Std	
70	Provides ability to mass add new meters and registers to inventory and process mass changeouts in addition to single meter/register changes	Std	
71	Provides ability to track new meter numbers (e.g. new field on work order)	Std	
72	Provides ability to have automatic notification for inspections of meters	Std	
73	Provides ability to receive real-time information and update CIS on meter changeouts from operations/maintenance/backflow technicians based on work orders performed in CMMS application (OpenGov Asset Management)	Std	
74	Provides portals to view customer usage	Std	
75	Provides 0 usage report/portal	Std	
76	Provides ability to track trends in meter change outs	Std	

Exhibit 3 - System Requirements Spreadsheet

77	Provides ability to readily identify and pull meters that have been tampered with after being locked	Std	
78	Provides projections for meter ordering based on historical usage, seasonal usage and failure rate analysis	Std	
79	Provides ability to support AMI	Std	
80	Provides ability to account for new meters and identification of rebuilt meters	Std	
81	Provides ability to create meter reading exceptions	Std	
82	Provides ability to have a meter reading exception portal to work exceptions	Std	
83	Provides ability to receive readings for firelines and bill a flat amount if no usage or bill the consumption reading if it occurs	Std	
84	Provides ability to send a letter for any customer with usage exceeding a configurable amount	Std	
85	Identifies any no consumption active meter (NCAM) with no usage for a customer designated timeframe by service and auto generates a service order to investigate	Std	
86	Provides ability to automatically add or remove delinquent orders through mobile field work	Std	
87	Provides ability to track and analyze skip reads/mobile misses through dashboard, report, or other proposed solution	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor Comments
Rate Types			
	Allows for the following rate types:		
1	> Step Rates	Std	
2	> Tiered Rates	Std	
3	> Elemental Rates	Std	
4	> Fixed Rates and Variable Rates	Std	
5	> Flat Rates	Std	
6	> Pass through rates (passing through ad hoc fees to all customers)	Std	
7	> Surcharge	Std	
8	> Flat Rate with Entered Percent Increase	Std	
9	> Customer specific pricing	Std	
10	> Yearly Interest Rate Paid on Deposits	Std	
11	> Utility Deposits	Std	
12	> Utility Tax	Std	
13	> Ordinance	Std	
14	> User Defined	Std	
Rate & Fee Setup			
15	Provides real-time rate modeling	Std	
16	Provides ability to do wholesale costing with true-up for wholeale contracts	Std	
17	Provides ability to do predictive modeling for consumption based on usage at the account	Std	
18	Provides ability to apply, or not apply, unique rates and fees by multiple levels of jurisdictional area (e.g. Service Districts, Taxing Authorities, City, County)	Std	
19	Provides ability to apply exemptions by service	Std	
20	Provides ability for the user (with security) to change rates and fees without programming intervention	Std	
21	Allows rates to be specific per billing class that includes both Residential, Commercial and service type (e.g. Water, Sewer, etc.), and can't be used for other billing classes	Std	
22	Incorporates predefined meter size table. Includes meter size and base charges etc.	Std	
23	Allows each discrete billing component to be assigned its own unique revenue code or G/L number	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
24	Allows creation of custom, user-defined rate structures - rate functions or scripts can be created using logic to apply rates, charges, taxes and credits to consumption ranges and date ranges	Std	
25	Allows existing rate tiers to be split, addition of new tiers	Std	
26	Allows existing rates to be copied to new rates	Std	
27	Allows for minimum effort in updating rate prices. Can be updated by only modifying components.	Std	
28	Provides effective and end dates for rates	Std	
29	Provides ability to bill bulk water on a unique rate	Std	
30	Allows rates to be versioned with effective dates	Std	
31	Allows rates to be billed and prorated based upon different rate schedules and effective dates	Std	
32	Allows rates to be specific per service (e.g. Water, Sewer, Bulk Water, etc.)	Std	
33	Alows rates to use values stored in any premise field for rate calculations such as number of units, number of toilets, lot square footage, etc.	Std	
34	Allows rates to use values stored in any account field for rate calculations such as flat usage/amounts/counts, etc.	Std	
35	Allows rates to use values stored in any service field for rate calculations such as service size, backflow device, meter size, etc.	Std	
36	A single rate can have multiple fixed charges based on the meter size - the fixed charges applied to the bill are based on the meter size at the service	Std	
	A single rate can accumulate all related rates, charges and taxes for proper billing of the service including:		
37	> Consumption rate	Std	
38	> Service charge Flat Rate	Std	
39	> Service charge based on meter size	Std	
40	> Multiple surcharges	Std	
41	> Estimation Rules	Std	
42	> Proration Rules (user defined)	Std	
43	> Late Charge Rules	Std	
44	> Standard billing cycle days	Std	
45	> Hi and Low usage thresholds by month	Std	
46	Provides ability to mass add and update rates by utility and ordinance	Std	
47	Accommodates special programs related to rates/bills, for example rounding up to the nearest dollar and allocating excess dollars to appropriate general ledger ("GL") code	Std	
48	Allows for one rate to have multiple associated GL codes	Std	
49	Rates can be split by percentage or fixed dollar amounts by GL codes	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
50	Provides ability to track customer's historic rate assignments	Std	
51	Automatic assignment of rates based upon defined rate determinants	Std	
52	Provides ability to have rates with minimum of six decimal places	Std	
53	Provides ability to prorate by rate type and by bill type (starts and finals only etc.)	Std	
Rates General			
54	Provides ability to automatically apply various miscellaneous charges and credits when calculating customers bills (e.g. interest, etc.)	Std	
55	Provides rate history	Std	
56	Allows cancel/rebill using historical rates	Std	
57	Provides ability to Charge sewer based on readings from other agencies	Std	
58	Provides ability to break down base rate and show detail	Std	
59	Provides ability to assess different penalties and fees by jurisdiction	Std	
60	Provides ability to calculate and bill irrigation violations based on scheduled days by area	Std	
61	Allows for tax calculations to be different for each taxing entity and service type (allows unlimited number of taxing entities)	Std	
62	Provides ability to bill and support interruptible rates	Std	
63	Provides ability to bill and support bulk rates	Std	
Rate Application			
64	Associates unique rates to each service	Std	
65	Associates unique rates to each meter at a service	Std	
66	Provides ability to maintain special rates	Std	
Tiered Rates			
67	Supports variable tiered rate structures per metered service	Std	
68	Supports unlimited number of tiers	Std	
Exemptions			
69	Provides for late charge/penalty exemptions	Std	
70	Provides for tax and fee exemptions	Std	
71	Allows unique late charges, penalties, and expirations by individual account, taxing entity, or zip code	Std	
72	Allows exemptions by service	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
73	Provides tax and fee/penalty exemption expiration dates	Std	
74	Provides reports for exempt customers	Std	
75	Supports user-defined exemptions based on customer and account fields	Std	
Charges and Fees			
76	Provides for one-time charges (e.g. Reconnect Charge Fee, Turn-on Fee, Late Charge Penalty, Return Check Fee, After Hours Fee, Initiation Fee, Tampering, Replace Meter Fee, etc.)	Std	
77	Provides ability to override fees	Std	
78	Provides ability to automatically calculate return check fee based upon the check dollar amount (e.g. <$50- $50)	Std	
79	Provides ability to calculate service connection (e.g. Water, Wastewater) fee based on customer class: Residential: resident type (e.g. Mobile, RV, etc.) and lot size (e.g. less than 1 acre); Commercial by service (e.g. Water, Wastewater) and projected usage	Std	
80	Provides for parameter inputs for irrigation on wrong days and charge appropriate fines	Std	
81	Provides for disputed meter reading fee	Std	
82	Provides for High Strength Industrial Waste fees	Std	
83	Provides for recurring charges	Std	
84	Provides meter tampering/theft of service fee based upon the number of incidents	Std	
85	Provides meter utility fees (e.g. obscured meter; cross connection, connection to other services, etc.)	Std	
86	Provides meter test and retest fees (based upon meter size)	Std	
87	Provides ability to bill service fees	Std	
88	Provides ability to bill water violation fees	Std	
89	Provides ability to waive fee if meter is not registering	Std	
90	Allows creation of user-defined one-time miscellaneous charges/credits	Std	
91	Allows multiple surcharges (Charge or Credit)	Std	
Taxes			
92	Provides for the setup and assignment of taxes	Std	
93	Provides on-line setup and maintenance of tax categories and codes with associated tax rates based on dollars or usage, include with charges on bill, and appropriate GL number	Std	
94	Provides ability to track and report accounts and amount paid to specified taxing entity	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
Rate Processing			
95	Allows on-line creation of new rate structures with future dates, programming is not required	Std	
96	Allows on-line identification and copying of current/historical rate structures to new rate structures	Std	
97	Allows on-line deletion of old rate structures for unused rate structures with controls over the deletion process	Std	
98	Provides ability to keep inactive rates	Std	
99	Provides ability to modify a rate and track changes for purposes of historical modeling and billing	Std	
100	Provides ability to track the customer's historical rate assignments	Std	
101	Allows selection and viewing/printing of rate structures and entire rates master as required	Std	
102	Provides rate schedules by service type and service point for: Water, Wastewater and other services	Std	
103	Provides for general rate reporting (e.g. allow reporting of consumption used and dollars received at the rate step level per individual customer and across the utility)	Std	
Rate and Fee Determinants			
104	Rates and rate discounts can have components determined by customer type, account type, or premise type .	Std	
	Provides ability to set up rates, rate structures, and fees within the system linking the following data elements for customer bill calculation:		
105	> Consumption Blocks and Rates	Std	
106	> Estimated Bill Percentage (increase estimated bill by a %)	Std	
107	> Bill Estimation Indicator (Bills can be estimated for this rate)	Std	
108	> Proration Indicator	Std	
109	>Base Charge	Std	
110	> Minimum charge	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
111	>Fixed Charge	Std	
112	>Late Charge flat Fee	Std	
113	>Late Charge Percentage	Std	
114	>Late Charge Minimum (if calculated amount is less than minimum, do not include on bill)	Std	
115	>Number of Billing Periods Per Year (capable by service)	Std	
116	>Rate Schedule Unique Identifier	Std	
117	>Meter/Service Size	Std	
118	>Service	Std	
119	>Customer Classification/Trade Class	Std	
120	>Property Size (square foot)	Std	
121	>Impervious Surface Area (square foot)	Std	
122	>Stormwater Fee Credits	Std	
123	>Number of Units (duplexes, etc.)	Std	
124	>Water consumption	Std	
125	>Septic usage	Std	
126	>Recycling/Trash- Number of cans, Number of Pickups	Std	
127	>Rental dumpers	Std	
128	>Master Meter or sub meter	Std	
129	>SIC. Code	Std	
130	>Special Discounts	Std	
131	>Customer owned item (customer owned meter etc.)	Std	

Automatic Rate Assignment

Item	Requirement	Response	Vendor
132	Provides automatic assignment of rates based upon defined rate determinants	Std	
133	Provides ability to override rates which the system may automatically assign	Std	
134	Provides ability to override rate determinants at individual customer/premise	Std	

Rate Development

Item	Requirement	Response	Vendor
135	Allows for calculation of sample billings for test accounts without affecting revenue	Std	
136	Allows proposed rate changes without affecting the customer record	Std	
137	Provides for projecting revenues from new rate structures based on affected classes of customers by rate component	Std	
138	Provides a reporting method for analysis of current rate structures to provide revenue and bill frequency analysis (number of bills and consumption)	Std	

Exhibit 3 - System Requirements Spreadsheet

Rates & Fees

Item	Requirement	Response	Vendor
139	Provides ability to download for the analysis of customer usage by various characteristics for example: customer class, usage category, SIC., etc.	Std	
140	Provides ability to set up customer accounts that are differentiated by customer class, building class and tax status	Std	

Exhibit 3 - System Requirements Spreadsheet

Billing

Item	Requirement	Response	Vendor Comments
Billing Types			
	The system shall be flexible enough to handle a variety of billing scenarios including the following basic billing types:		
1	> Bill-in-arrears	Std	
2	> Bill-in-advance	Std	
3	> Pre-pay	Std	
4	> Installment billing with interest for specified time	Std	
5	> Consumption based billing	Std	
6	> Bill by weight (landfill and building materials)	Std	
7	> Time based billing	Std	
8	> Minimum consumption based	Std	
9	> Flat rate billing	Std	
10	> Master Bills	Std	
11	> Service install or Tap install billings	Std	
12	> Multiple Services	Std	
13	> Miscellaneous or one-time billings	Std	
14	> Proration	Std	
15	> Budget billing (equalized and levelized)	Std	
16	>Autopay (Automatic Utility Payment Plan)	Std	
17	> Payment arrangement	Std	
18	> Device at multiple locations in the same month/billing cycle	Std	
Billing Determinants			
	Cycle Based Billing		
19	Allows Accounts to be assigned to a billing cycle- all Accounts shall be billed when cycle is selected for billing	Std	
20	Provides ability to have billing cycles that are made up from meter reading routes	Std	
21	Provides ability to have non-metered services included in a billing cycle	Std	
22	Allows for one or many Accounts to be moved to a new billing cycle with appropriate pro-rated billings for the initial period	Std	
23	Provides ability to support cycle utility billing	Std	
24	Provides ability to support off cycle billing	Std	
25	Provides ability to support the billing of 1 or more cycles per business day	Std	

Exhibit 3 - System Requirements Spreadsheet

26	Provides ability to have billing cycles that are billed when selected. Cycles can be billed separately or in conjunction with other cycles.	Std	
27	Provides ability to have billing cycle schedules that can be defined in advance	Std	
28	Provides ability to define working / holiday calendars or link to existing calendars from other systems for use in determining billing cycles	Std	
	Date Based Billing		
29	Provides ability to have Accounts assigned to a billing date - all Accounts are selected on the same day of the month each billing period	Std	
30	Provides ability to have all charges billed read date to read date, prorating fixed charges with a daily rate	Std	
31	Allows Accounts to have charges billed from bill date to bill date, regardless of read dates	Std	
32	Allows Accounts to have all non consumption charges be billed at a fixed rate regardless of number of days in the period, provided user has proper permissions	Std	
	Contract/Loans Billing		
33	Provides ability to bill loan contracts with interest	Std	
34	Provides ability to calculate and view on-line early pay-off balance and interest for loan, if paid this month or paid next month	Std	
35	Provides ability to generate loan payment report including interest and payments	Std	
36	Provides ability to generate report loan report by service type	Std	
37	Provides ability to generate IRS Form 1098 to Customers for all Accounts	Std	
38	Provides ability to change variable interest rate and recalculate monthly billing amount per month	Std	
39	Provides ability to bill reoccurring fees, loan amount charges.	Std	
	Events and Misc. Billing		
	Provides ability to have Accounts that are billed based on events and misc. billing including:		
40	> Closing or Final bills	Std	
41	> Cancel / Rebills	Std	
	Billing Selection		
	Billing Batches		
42	The system shall use batches to select Accounts for billing.	Std	
	Provides ability to modify billing cycles around holidays and the City calendar	Std	
	Provides ability to have billing batches select Accounts from the following:		
43	> Billing cycles	Std	
44	> Override Cycles	Std	
45	> Meter reading routes	Std	
46	> Individual Accounts	Std	
47	> Event based billings	Std	
48	Provides ability to have billing batches that can be assigned a billing date	Std	
49	Provides ability to have billing batches that can be assigned an accounting date	Std	

Exhibit 3 - System Requirements Spreadsheet

50	Provides ability to automatically generate billing batches for regular cycle bills based on pre-determined billing / reading schedule	Std	
51	Provides ability to adjust billing schedule parameters	Std	
52	Provides ability to remove potential problem bills from a bill run on the fly, using selection criteria to select bills, so as not to hold up the bill cycle	Std	

Billing Periods

Billing Frequencies
Supports flexible billing periods - the following periods are supported:

53	> Monthly	Std	
54	> Ad Hoc	Std	
55	Allows different billing periods for each service	Std	
56	Provides ability to have a single service that can be finalized on an ongoing Account and billed	Std	

Proration

57	Supports proration of charges during any billing period for a single or multiple rate change	Std	
58	Allows for proration of fixed base charges for partial billing periods (e.g. opening and closing bills - based on days active to days in billing period)	Std	
59	Allows proration by rate type	Std	
60	Allows proration by rate effective date	Std	
61	Provides ability to prorate based upon usage periods	Std	
62	Allows no proration within user definable ranges on either side of standard billing period days. (e.g. no proration between 28 and 32 days on a monthly [30 day] billing period)	Std	

Billing Methods

Consumption Based

63	Provides ability to bill consumption based on previous and current meter readings	Std	
64	Provides ability to bill consumption based on usage uploaded to the system (ex. Landfill)	Std	
65	Provides ability to correctly bill for multiple meter/register/device changes during a single billing period	Std	
66	Provides ability to combine consumption from multiple meters and use for billing on a single rate	Std	
67	Provides ability to bill one service based on consumption from separate service (e.g., sewer billing based on water consumption)	Std	
68	Provides ability to bill multi-family services with mutiple meters by associating X number of units to a given meter to calculate consumption based on tiers or aggregate all units and meters to calculate consumption based on tiers	Std	

Exhibit 3 - System Requirements Spreadsheet

69	Provides ability to cap usage for wastewater usage charged regardless of water consumption	Std	
70	Provides ability to bill a percent of another utility usage (e.g., Water, Sewer etc.)	Std	
71	Provides ability to bill based on third party usage without maintaining inventory	Std	
72	Maintains an easily understandable method for identifying consumption from meter rollovers	Std	
73	Provides ability to electronically input billing data file from third parties; and include data on Customer bill	Std	
74	Accommodates external data for third party bills	Std	
75	Provides ability to store informational reads and billed amount (Common Customers - sewer only)	Std	
Estimating			
76	Allows services to be estimated for billing	Std	
77	Bill consumption shall be based on a system calculated estimated consumption value	Std	
78	System automatically generates estimated reads and exceptions. After prescribed number of estimates, Account/meter is put on high priority list	Std	
79	Alllows user-defined estimation calculation	Std	
80	Allows limit on the number of consecutive estimated consumption billings an Account can have (e.g. number of consecutive billing cycles is user definable)	Std	
81	Provides ability to estimate forever on a premise	Std	
82	Provides ability to automate the investigation and resolution of meters with consecutive estimates	Std	
83	Provides ability for user to override system estimate with forced read	Std	
84	Allows treatment of the estimated read as an actual read - all services are billed as if an actual read was received ("commit read")	Std	
85	Provides a read only billing displaying the difference between the estimated read and the real read (True-up)	Std	
86	Provides ability to treat the estimated read as an estimate and track billings separate from actual read billings - when an actual read is obtained the estimated bill amount is reversed (credited) and the actual read is used to calculate the final actual bill amount (return of estimate)	Std	
87	Allows for and accounts correctly for meter change outs during an estimate month	Std	
88	Provides ability to estimate/prorate readings for specified days of service given a reading for greater/lesser days of service to allow limits on days of service to be billed	Std	
Flat Rate/Fixed Charge		Std	
89	Provides ability to bill a flat or fixed charge for a service for each billing period	Std	
90	Provides ability to bill multiple base charges for a service	Std	
91	Provides ability to bill a flat or fixed charge for a service multiplied by a quantity figure each billing period	Std	

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92	Provides ability to bill a fixed charge based on service size	Std	
93	Provides ability to bill a fixed charge based on lot size	Std	
94	Provides ability to bill a fixed charge based on device size	Std	

	Billing Types		

	Bill-In-Arrears		
95	Provides ability to bill services in arrears	Std	
96	Provides ability to bill each service either in-arrears or in-advance with any change in rates taken into Account	Std	
	Miscellaneous One-Time Billings		
97	Provides ability to perform non-Customer billings - user can create a one-time bill and print an invoice for the charges	Std	
98	Provides charge codes for individual line item billings with related GL Accounts	Std	
	Miscellaneous Recurring Billings		
99	Provides ability to perform non-Customer billings - user can create recurring bills and print regular invoices for the charges	Std	
100	Provides ability to perform reoccurring billing based on a fixed amount each month until the total amount is recovered (charges $19 each month to recover $4,000 – bills that amount until fully recovered, then stop)	Std	
101	Recurring bills may utilize all services/functions allowed for with utility billing (e.g. EFT, payment plans, dunning, rate management, etc.)	Std	

	Billing Terms		

	Current Accounts		
102	Provides ability to apply payment terms consistently to all regular recurring utility bills	Std	
	Closed Accounts (Final Bills)		
103	Provides ability to not issue credit refunds for final bill less than $x.xx amount	Std	
104	Provides ability to apply separate payment terms to final bills than for regular utility bills	Std	

	Billing Charges and Fees		

	Automatic Charges		
	Provides ability to bill the following charges automatically:		
105	> Fixed late payment charge	Std	
106	> Percent based late charge	Std	
107	> Percent based late charge with fixed minimum	Std	
108	> NSF charge	Std	
109	> Disconnection charges	Std	
110	> Set-up charges	Std	
111	> Service order based charges	Std	
112	> Surcharges/Violations	Std	
113	> User defined	Std	

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Miscellaneous Charges

Provides ability to bill the following miscellaneous type charges:

114	Provides ability to support prepay (e.g. roll-off dumpster)	Std	
115	Accommodate charges and adjustments for services from external sources	Std	

Manual Charges

Provides ability to bill the following manual type charges:

116	> One-time miscellaneous charges	Std	
117	> Deposits	Std	
118	> Service charges	Std	
119	> After-hours	Std	
120	> Same day	Std	
121	> Tampering (meter)	Std	
122	> Unauthorized use (turning on service after disconnect without payment)	Std	
123	> Collection fee	Std	
124	> Missed appointment	Std	
125	> Miscellaneous field visit	Std	
126	> Miscellaneous non-utility charges	Std	
127	> Damage to equipment	Std	
128	> User Defined	Std	

Billing Adjustments	

Cancel/Rebill

129	Billing multiplier applied at time of billing	Std	
130	Accommodates a cancel/rebill process that shall allow cancelling and rebilling for "X" billing cycles and include changes in any billing component including rates, usage, surcharges and taxes	Std	
131	Allows cancel/rebill to prorate base charge and/or fixed rate charges based upon the number of days in the billing period	Std	
132	Provides ability to perform cancel/rebill for multi day periods for flat rate charges and prorate rebill based upon the number of days in the billing period.	Std	
133	Provides ability when water cancel/rebill adjustment is performed to adjust Wastewater rate charges based on cancel/rebill	Std	
134	Allows cancel/rebill to be applied to entire Account or to one or more individual services	Std	
135	Provides ability to restate billed amount of services not canceled/rebilled on an adjusted bill	Std	
136	Includes original as well as adjusted dollar and consumption amounts on the new bill for comparison	Std	
137	Includes original as well as adjusted dollar and consumption amounts on the Customer inquiry screen	Std	
138	Adjusts the original as well as the new GL Accounts for the cancel/rebill, taking into account any GL Account changes that may have taken place since original billing	Std	

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139	Accommodates cancel/rebill when a Customer ownership change needs to be back dated; properly credit and rebill the previous Customer and create the proper bill for the new Customer based on the user entered Account change date	Std	
140	Back dated cancel/rebill transactions shall be recorded against the current Accounting period (month) or against the prior Accounting period (month)	Std	
141	Provides ability to or not to issue credit refunds, if cancel/rebill results in an amount of less than a user specified amount	Std	
142	Provides ability to stop cancel/rebill statement from generating off-cycle and bill on-cycle	Std	
143	Provides ability to easily QC fixed bills and workflow process for reviewing adjustments and cancel-rebills	Std	
144	Provides ability for supervisor to approve or deny cancel-rebill (with proper permissions)	Std	
145	Provides ability for cancel/rebill to be summary bill or discrete bills, as directed by customer. Maintains orginal copies	Std	
146	Provides ability to produce a cancel up to 10 years worth of billings and rebill	Std	
Adjustments			
147	Accommodates miscellaneous dollar adjustments to an Account	Std	
	Provides for multiple adjustment types:		
148	> Courtesy	Std	
149	> Re-Read	Std	
150	> Billing	Std	
151	> Payment	Std	
152	> NSF	Std	
153	> HBC (History based adjustment)	Std	
154	> User Defined	Std	
155	Provides ability for adjustments to services to recalculate based on tiers for all services	Std	
156	Provides ability to restrict users from making adjustments on defined accounts (conflict of interest)	Std	
157	Allows manual or automatic adjustment for any line item on the bill- user can specify adjustment for line item, or bill total	Std	
158	System shall create automatic re-bill following adjusment	Std	
159	Provides ability to process multiple similar adjustments at once	Std	
160	Provides ability for adjustments to be applied against each invoice line item	Std	
161	Provides abillity for adjustments to be applied by changing a line item quantity	Std	
162	Allows line item adjustments to automatically adjust the related taxes charged against the line item	Std	
163	Provides ability to automatically adjust historical consumption over a prescribed time period	Std	
164	Provides ability to calculate HBC adjustment (history base adjustment) based on Customer defined rules/formula	Std	

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165	Provides ability to override the HBC adjustment	Std	
166	Provides ability to track and limit water adjustments to (x) times a year based on type of adjustment, provided user has proper permissions	Std	
167	Provides ability to define dollar amount threshold where adjustments over the limit shall be approved by system user with appropriate rights before it can be posted to Account	Std	
168	Allows for approving authority to approve adjustments through workflows defined by the city	Std	
169	Accommodates usage adjustments to an Account and automatically calculate the dollar amount based on all billing components including rates, surcharges and taxes	Std	
170	Provides for creation of adjustments utilizing GL codes defined in system	Std	
171	Provides ability to reverse or void adjustments, which adjusts system records and corrects GL Account entries	Std	
172	Provides ability to remove mis-applied and corrected adjustments from Customer's bill	Std	
173	Provides ability to print off cycle bill	Std	
174	Provides ability to bill adjustments by producing a one time bill or billed during next scheduled Account billing	Std	
175	Provides ability to track adjustments by type (high bill, misread, leaks, vacancy credits, etc.) and then the nature of the leak (toilet, sinks, irrigation, curb stop, main line, etc.) and dollar amount of the adjustment by service type (e.g. Water, Sewer, Irrigation)	Std	
176	Provides ability to view all Accounts with a credit balance resulting from an adjustment	Std	
177	Provides ability to schedule adjustments for future dates	Std	
	Group Billing		
178	Allows combining Accounts into a single summary or group bill	Std	
179	Applies cash receipts to each Account in the group bill	Std	
180	Allows preference to be assigned to each Account in group for cash receipts application if partial payment is received	Std	
181	Group bills shall include detail by Account in addition to the summary bill	Std	
182	Group bills shall have one remittance	Std	
183	Provides ability to have subAccounts bill with master Accounts on the master Accounts billing cycle - all individual Accounts shall not be billed until the master Account is billed and individual Accounts shall be included in their respective bill cycles and marked as unbilled or group bill for control purposes	Std	
184	Master Accounts can be billed in a special batch or out of cycle if desired	Std	
	Billing Calculations		
185	Provides ability to create bill calculation simulations	Std	
186	Allows a one-time credit, or schedule of credits/recurring credits on Customer's bill based on service	Std	
187	Allows a deduction (credit) for sewer meters based on registered cooling towers	Std	

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188	Allows a deduction (credit) in stormwater fees based on registered stormwater control measures (SCMs)	Std	
	Conservation Billing		
189	Records a baseline consumption per service and track cumulative over/under baseline usage for banking for a user defined period of time, the Customers bank balance shall be displayed on the bill	Std	
190	Provides ability to bill a surcharge for usage over the baseline quantity per billing period	Std	
191	Provides ability to bill a credit for usage below user defined threshold	Std	
192	Provides ability to bill a step credit for ranges of usage below a user defined threshold	Std	
	Bill Messages		
	Prints the following bill message types:		
193	> Per individual Account	Std	
194	> Per Billing Job	Std	
195	> Per Service	Std	
196	> Per Jurisdictional Area	Std	
197	> Per Billing Cycle	Std	
198	> Global Message on all bills	Std	
199	> Customer feedback messages including check boxes, signature line, input lines, etc.	Std	
200	>Provides ability to select Customers for bill messages based on other user-defined fields	Std	
	Generate messages for the following:		
201	> Adjustment Explanations	Std	
202	> Rate and Rate structure changes	Std	
203	>Shutoff and delinquency notices	Std	
204	>AffordProvides ability Programs	Std	
205	> Payment plans	Std	
206	> User Defined	Std	
	Bill Production		
	Bill Formatting		
207	Bills are automatically generated in the system and emailed out to customers.	Std	
208	Provides ability to customize the bill print appearance	Std	
209	Supports 8 1/2 x 14 format	Std	
210	Supports an output file of billing data for outsourced print and mail vendor	Std	
211	Supports graphic images, shading, bolding and other format features for bill formatting, including preprinted stock or color/laser printing	Std	
212	Allows combining charges by type on the bill (e.g. all taxes roll up into a single tax line item)	Std	
	The bill presents the following discrete data on the bill:		
213	> Bill Date	Std	

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214	> Bill period for each service and/or device	Std	
215	> Previous and Current Meter readings by meter	Std	
216	> Rate Schedule per meter/service	Std	
217	> Rate Description	Std	
218	> Consumption being billed by service / meter	Std	
219	> Meter size(s) per service	Std	
220	> Register number	Std	
221	> Meter number(s) per service	Std	
222	> Account Name	Std	
223	> Account Address	Std	
224	> Account Number	Std	
225	> Premise Address	Std	
226	> Surcharges, fees, penalties and taxes with descriptions	Std	
227	> Past Due Balance	Std	
228	> Previous Balance	Std	
229	> Payments made	Std	
230	> Current Amount Due	Std	
231	> Bill Due Date	Std	
232	> Auto Bank Payment Schedule Date	Std	
233	> Discontinuance Date (e.g. after xx date)	Std	
234	> Next meter reading date/range (on or around)	Std	
235	> 13 month Consumption History Graph by service	Std	
236	> Customer Class	Std	
237	> Subtotal by service	Std	
238	> Bill Messages	Std	
239	> OCR Bar codes	Std	
240	> User defined Scan Line	Std	
241	> Handling code (e.g. Opening bill, closing bill, group bill, etc.)	Std	
242	> Detail charges, consumption and rate per rate tiers/steps/frequency if requested	Std	
243	> devices and equipment (details of backflow device, meter, cart, etc)	Std	
244	> User defined data	Std	
245	Allow different bill format overlays for different bill formats	Std	
246	Provides ability to have matching formats for online bill, paper bill and ebills	Std	
247	Allows different bill formats to be defined for different companies and areas	Std	
248	Allows different bill formats to be defined for different kinds of bills, regular bills, reminder notices, etc.	Std	

Bill Sorting
Allows bills to be sorted by the following criteria:

249	> Special Handling code	Std	
250	> Zip + 4, carrier and route	Std	
251	> Group Billing	Std	
252	> User defined sort options	Std	
253	> Number of bill pages	Std	

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254	Allows Accounts to be marked so as to print all bills at the same mailing address to print together	Std	
Address Verification			
255	Provides ability to interface with a third party address (Coding Accuracy Support System) CASS certification software package - list companies system interfaces with (for mailing addresses)	Std	
256	Address verification for Premises address can be interfaced with GIS for 3rd party verification	Std	
257	Updated verified addresses, zip codes, carrier and route are used to update actual Account and Premise addresses in system	Std	
258	Provides bar-coding of postal information	Std	
Inserter/Stuffer Codes			
259	Supports a unique inserter/stuffer code for remit envelopes and suppression code for all zero and credit balance, EBPP (Electronic Bill Presentment and Payment) and EFT (Electronic Fund Transfer) Customers	Std	
260	Supports annual report bill insert	Std	
261	Supports the assignment of up to 3 additional stuffer codes for each billing batch/cycle	Std	
262	Inserter/stuffer codes can have user defined placement and font on billing template	Std	
Bill Print			
263	Prints to a system or network connected printer	Std	
264	Creates a print file in PDF format for print and download to media	Std	
265	Displays the total number of bills to be printed	Std	
266	Displays the total number of bills printed	Std	
267	Displays the total number of bills remaining to be printed	Std	
268	Provides notification if bill print job fails	Std	
269	Allows restarting of bill print from anywhere in the bill print job	Std	
270	Allows a bill print job to be paused and restarted at any time	Std	
271	Provides ability to print multiple copies of a bill	Std	
272	Provides abilty to re-print any previous bill created in the system	Std	
273	Supports electronic bill presentment	Std	
274	Provides ability to have an output file to print the same information as hard copy bill	Std	
275	Provides alert, notification, or task list for suppressed bills not yet released	Std	
276	Provides ability to suppress remittance coupon/envelopes to Customers signed up for electronic only bills and/or EFT	Std	
277	Supports the utilization of third-party web-enabled applications to upload bill files, review and approve sample bills to/from bill print vendor	Std	
278	Accommodates bill images produced from bill print vendor to be uploaded for viewing on-line	Std	
279	Provides ability to produce and deliver duplicate bills (e.g. email, on-line) available for printing	Std	
280	Provides ability to send paper copy of bill to EBPP Customers if requested	Std	

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281	Provides ability to label all duplicate invoices with "Duplicate" at the top and bottom of the bill	Std	
282	Sends electronic notification to Customers on EFT/EBP when bills are ready for viewing	Std	
283	Provides ability to view 24 months of bill image history	Std	
284	Provides ability to view a combined history of billed amounts and payments	Std	
	Invoice Templates		
285	Supports multiple invoice print templates that can be chosen at invoice creation time	Std	
286	Provides for user defined invoice templates that can be defined for each department/fund that preloads the print layout, GL Account distributions, terms and the City contact information for all line items	Std	

Billing Controls and Statistics

Billing Control and Edit
Provides system and user defined bill error codes - billing error codes can be created by the user and include the following :

287	> High Bill threshold per service	Std	
288	> High Consumption Threshold per service	Std	
289	> Recent Meter Change	Std	
290	> Opening Bill	Std	
291	> Closing Bill	Std	
292	> Low Bill threshold per service	Std	
293	> Low Consumption Threshold per service	Std	
294	> Zero Consumption per service	Std	
295	> Estimated Read	Std	
296	> Compound Meter	Std	
297	> Seasonal Shut Off / Vacant	Std	
298	> User Defined	Std	
299	Allows errors to be defined as hard or soft - hard errors must be resolved to complete billing, soft errors shall not stop billing	Std	
300	Provides ability to view and track historical rates along with historical consumption and billing for customer	Std	
301	Provides ability to sort exceptions and assign by group (example large volume)	Std	
302	Provides ability to utilize portals and workflows to resolve billing exceptions	Std	
303	Provides ability to change Hi/Lo exception criteria based upon time of year	Std	
304	Calculates control totals for the billing job including cycle counts, route counts, closing bills, opening bills, special bills, etc.	Std	
305	Provides on-line review and correction of bills.	Std	
306	Allows billing errors to be printed and used for review and correction	Std	
307	Bill errors can be configured to automatically trigger service orders based on user defined criteria	Std	

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308	Sends notification/alerts to designated staff if exception service order has not been closed within a specified time period for immediate action (resolve or override/clear exception)	Std	
309	Allows Accounts to be pulled from billing batches to allow the remaining Accounts to proceed	Std	
310	Tracks bills pulled from a billing cycle	Std	
311	Provides ability to incorporate weather-related data in exception processing with user-defined parameters (ex. "high" read threshold changes on hot/cold day)	Std	
312	Provides ability to flag and override exceptions that have been determined valid or already corrected	Std	
313	System automatically generates unbilled Account list based on pre-determined schedule (e.g. 24 hours after regular billing cycle)	Std	
314	Credit rating and account exceptions are automatically processed with user-defined parameters	Std	
315	Provides route information for Exceptions team after meter has been established	Std	
	Invoice Terms		
316	Allows each invoice to have different terms available from a user defined list of invoice terms (e.g. 2% 10 Net 30, or net 10 or net 30)	Std	
317	Invoices shall support discounts that apply to the entire invoice amount	Std	
318	Discounts shall be booked to a separate GL Account	Std	
	Invoice Line Items		
319	Proivides quantities for each line item that extend to total line item amount	Std	
320	Supports at least 2 decimals for line item quantities	Std	
321	Allows each invoice to have unlimited line items invoiced from a list of charges or fees	Std	
322	Allows each line item to be assigned its own revenue and receivables Account	Std	
	Distribution Codes		
323	Supports user defined distribution codes that can be assigned to each line item that provides the GL Accounts to be debited and credited for that line item - these distribution codes shall be broken down by department or fund	Std	
324	Supports department/fund distribution override that changes the line items department/fund but leaves the natural Account segment the same	Std	
	Billing Reports		
325	Produces a detailed billing register detailing all charges by Account	Std	
326	Produce a summary billing register detailing charges by service, rate, company and area	Std	
327	Produces a summary billing register detailing charges by GL number	Std	
328	Produces a billing edit report	Std	
329	Provides ability to export reports and queries to Excel	Std	
330	Provides user definable billing reports	Std	
331	Reports can be printed to PDF files for storing and inquiry	Std	

Exhibit 3 - System Requirements Spreadsheet

	Credit & Collections		
Item	**Requirement**	**Response**	**Vendor Comments**
Customer Credit			
Credit Profile			
1	Captures basic customer credit information in order to provide an internal credit profile for the customer	Std	
2	Provides ability to maintain history of delinquent payments received and NSF that can be used by user-defined collection rules to flag as "cash only" or "no more extensions", provided the user has proper permissions	Std	
3	Provides internal customer credit profile fields that are user-defined and unlimited	Std	
4	Identifies customers who may be eligible for waived deposit based on internal credit history and profile	Std	
5	Provides ability to automatically verify customer identity using Equifax integration	Std	
Credit References			
6	Generates a letter of reference to a former customer in order to establish credit with a new utility company which includes specific information about the customer's history such as the number of late payments	Std	
7	Provides ability to summarize and print the customer's credit history for the past 12 months on the closing bill for use as a credit reference with another utility based upon specified criteria	Std	
Credit Scoring Process			
8	Provides a flexible credit scoring cap where the user can vary weights associated with various credit offenses - collection points for credit scoring purposes are applicable to all types of accounts	Std	
9	Provides ability to restrict credit offenses by account type (e.g. residential only, commercial only)	Std	
10	Allows internal credit profile to be maintained at the account level or customer level	Std	
11	Allows for internal credit profiles to exist for an account and the customer, affected by the changes at the account level	Std	
12	Internal credit history follows customer record, and bad credit can be "aged off" after user-defined period of time	Std	
13	Tracks a credit score taking into consideration the number of years connected and the past credit events, applying a weighted value to the customer's good/bad credit points	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

14	Provides ability to manually adjust or override a customer's credit score	Std	
15	Provides ability to determine credit worthiness while assessing deposits	Std	
Third Party/Guarantor/Co-signer/Owner			
16	Allows the user to define if 3rd parties should be copied on late notices	Std	
17	Automatically generates past-due notices to other responsible parties for the past-due finaled accounts	Std	
Cash Only Account			
18	Provides automatic identification of a "cash only" account based on a specific credit rating or a user defined criteria where cash and certified funds are allowed	Std	
19	Provides automatic identification of a "no credit card" account based on a specific credit rating or a user defined criteria where cash is allowed and credit cards are not (credit card fraud detected)	Std	
Account Balance			
Outstanding Account Balance			
20	Provides ability to isolate a balance owing on any given date in the account history; isolated balance shall prohibit delinquency or disconnect for a specified time period	Std	
21	Provides an on-line summary or report of all amounts owed by an entity having multiple service locations, both active, closed and pending	Std	
22	Provides ability to correct misposted payments	Std	
Transfer Account Balance			
23	Provides ability to cross-reference new service requests against inactive accounts with outstanding balances or accounts disconnected for non-payment with outstanding balances transferred to the new account	Std	
24	Provides ability to transfer delinquent balances between a customer's accounts	Std	
25	Allows for adjustments to accounts which have balances due because the service was terminated after the requested date	Std	
26	Allows for transfer of charges from a customer whose account was terminated after the requested date to the customer (including apartment complexes) who actually used the service	Std	
Freezing an Account			
27	Allows for accounts transactions to be "frozen" so that no new transactions can be applied during any dispute review process	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

#	Requirement		
28	Provides ability to have freeze hold applied to account based upon security roles (e.g. supervisor)	Std	
29	Provides ability to create dispute period (e.g. 1 month; from/to dates)	Std	
30	Provides abiltity to not apply payments in payment application for disputed transactions.	Std	

Collections

Notification and Cutoff for Non-Payment

#	Requirement		
31	Allows for the setup of aging periods of current, 30, 60, 90 and 120 days	Std	
32	Provides for the automated process for creating past due notices	Std	
33	Provides unique past due notices for each aging category considering the past due terms defined for the invoice	Std	
34	Provides for the identification of usage on a vacant account	Std	
35	Provides ability to send notification to the address and or property owner of record to prompt application for service	Std	
36	Provides ability to notify the meter reader and flag the responsible party of the account when unauthorized usage of service is detected	Std	
37	Provides ability to set threshold for reconnection and transmit that amount to the field for field tech use	Std	
38	Provides ability to set different collection paths for different customer types, acccount type and service	Std	
39	Provides ability to exempt an account from collections/cutoff	Std	
40	Provides ability to exempt service types from collections/cutoff	Std	
41	Supports an automated notice and collection activity for all customers based upon specific processing date schedules by customer class	Std	
42	Provides ability to define an automated notice and collection process by service, product, dollar amount and program	Std	
43	Provides ability to define an automated notice and disconnect for non payment on the entire account balance, regardless of the service	Std	
44	Provides ability to create a disconnect for non payment order for unpaid deposits on any service	Std	
45	Provides ability to establish separate business rules for priority and key accounts, landlords, and special handling customers	Std	
46	An account can be considered delinquent and not be processed for shut off based on an overdue balance threshold	Std	
47	Provides ability to generate past-due notices with a varying degree of severity based upon customer credit history and amount due - system allows notices to be tailored to customers with better or worse credit history	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

48	Identifies a sequence of delinquent and non-pay disconnect notices - system supports any number of notices with variable contents and format	Std	
49	Provides ability to automatically send outbound calls for past-due notification to all account relationships identified for past-due notification	Std	
50	Provides ability to automatically remove cash only status after 12 consecutive good payments	Std	
51	Identifies accounts on disconnection list that have a disconnect exemption and allow the user to override the exemption	Std	
52	Provides ability for user to remove accounts from the notice and/or disconnect list	Std	
53	Identifies and produces report of non-pay disconnect customers for subsequent follow-up	Std	
54	System shall primarily base the preparation of delinquency notice on a total unpaid dollar amount or an aging threshold determined by the credit and collection staff	Std	
55	Provides ability to deploy customer notification (mailed notice, email, text) based on customers communication preference noted on account	Std	
56	Suppress or issue disconnect notices either individually, in groups, or by area	Std	
57	Provides for the printing of disconnect orders by route or meter sequence or address	Std	
58	Allows for printing of a variable expiration date for an account at the time the disconnect notice is created - for example specify a 10 day allowance for payment instead of 15 days (extensions included)	Std	
59	Allows information to be printed on the disconnect notice to be user defined	Std	
60	Provides on-line identification or reporting of accounts that have been turned off for non-pay	Std	
61	System shall not re-establish a new collection process for NSF checks/ late charge adjustments (disconnect date) - accounts are placed back into existing collection process	Std	
62	If payment on a turn-off notice is received by check and check becomes NSF then a turn-off notice shall be automatically created to lock off the service as part of the NSF process	Std	
63	Automatically issues follow up disconnect service orders for remaining active services, if account is still delinquent after defined number of days	Std	
64	Provides ability to automatically adjust account balance for NSF	Std	
65	Provide a live disconnect queue - this queue would be automatically updated based on account activity. (e.g. payments)	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

66	Notifies customer when eligible for disconnection and when manual disconnection order created	Std	

Collection Agency

68	Provides ability to assign a final account to a collection agency based upon user defined parameters (e.g. balance greater than x; final bill over due x days)	Std	
69	Provides ability to review accounts prior to release to agency	Std	
70	Provides ability to notify and recall account from collection if account is paid in full	Std	
71	Provides ability to easily configure adding a new collection agency	Std	
72	Provides ability to manage accounts assigned to multiple collection agencies	Std	
73	Provides ability to notify collection agency assigned to the account of any updated account balances due to payments and /or adjustments	Std	
74	Provides ability to identify and track all account payments and adjustments assigned to a specific collection agency	Std	

Bad Debt

75	Provide a method for automatically archiving and purging bad debt history information (time to be user defined)	Std	
73	Supports a process to automatically select invoices > x (variable) days aged to be classified as bad debt and remove open amount from AR account and placed in bad debt account	Std	
74	Allows for payments against charge-off amounts	Std	

Notes

75	Provides ability to add notes to specific credit events	Std	

Penalty

Late Payment Penalty

76	Applies a late payment penalty based on a user defined criteria (e.g. flat dollar amount or a percentage of the balance due) - The user can also define by other parameters such as customer segmentation, rates, specific charges, service type, or jurisdiction	Std	
77	Provides ability to flag an account exempt from late fees either based on user defined rules or automatically	Std	
78	Provides ability to flag services (ex. Sanitation) exempt from late fees either based on user defined rules or automatically	Std	
79	Provides ability to change the late fee percentage	Std	
80	Provides ability to charge late fees once a month regardless of bills produced	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

#	Requirement		
81	Allows cancel rebill process to not assess late fees more than once a month	Std	
82	Allows misc. adjustments to not assess late fees more than once a month	Std	
83	Automatically indicate the payment amount on the delinquency notice and reduce the balance due upon receipt of partial late payment	Std	
84	Provides ability to charge late fee based the total amount overdue on the bill	Std	
85	Allows for a late payment penalty based on a percentage or minimum, determined by the balance of the overdue amount	Std	
86	Provides for minimum $x.00 overdue amount for delinquent fee	Std	
87	Provides ability to apply late payment penalty once per bill, per service or on the total overdue amount	Std	
Returned Checks (a credit perspective)			
88	Automatically place customers with returned checks into the delinquency process where they would have been if no payment were received, where the charge is past due	Std	
89	Automatically calls, mails or delivers to the customer, notice of the returned check	Std	
90	Automatically applies a returned check fee upon entry of the reversal of the payment	Std	
91	Provides ability to override the fee without an adjustment to the account	Std	
92	Automatically creates a lock-off order if an NSF check is not cleared in "x" days from the NSF letter date (user defined)	Std	
93	Automatically removes "Cash Only" status after 12 consecutive payments	Std	
94	Automatically flags account as "Cash Only" if X (user defined) number of NSF events occur in a 12 month period	Std	
95	Provides an on-line view or report of checks that have been returned based upon user defined criteria such as date, amount, customer class	Std	
96	Places the account in the collection process when NSF checks are not satisfied within x number of days (user defined)	Std	
97	Provides ability to store payment return/cancel reason	Std	
Payment Arrangements / Payment Plans			
98	Provides ability to create two types of payment agreements: Payment Extension (extension for total amount due for "X" number of days) and Payment Plan (payment agreement overdue divided for the term of the agreement (e.g. 6 months or 12 months) plus current billing	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

99	Tracks the number of payment plans granted to an account in a running twelve month period - payment plans are made for customer accounts with user defined criteria	Std	
100	Provides ability to continue to show past due balance in addition to the current billed amount due on accounts under a payment plans	Std	
101	Tracks the number of payment plans not met and fulfilled - for each plan that is made, provides the ability to track default	Std	
	Provides ability to limit number of cancelled and reinstated payment plans per account	Std	
102	Establishes and maintains customer payment plans based upon installments - total balance owing can be divided into multiple user-defined installments	Std	
103	Establishes payment plans on the final bill of an inactive account to provide customers the ability to pay total balance with an payment plan after moving from the Utility service area	Std	
104	Generates the initial payment schedules and amounts	Std	
105	Allows the user to adjust the payment plan amount for each payment	Std	
106	Allows the user to adjust the payment plan due date for each payment	Std	
107	Provides for payment plans that are not tied back to a specific debit in the account and can be made for any amount	Std	
108	Provides for payment plan dates that are user defined	Std	
109	Provides ability to automatically generate installment payment letters, and the ability to send "reminder" notices to customers with payment installments	Std	
110	Provides ability to make deferred payment plans for customers, who can pay current bill and avoid collection on past due amounts until a future date; payment plans are made to pay over (user defined) months in the future	Std	
111	Provides an on-line view of payment plans made with a customer for an account	Std	
112	Provides ability to make deferred payment plans for customers - customer can pay current bill and avoid collection on past due amounts until a future date; arrangements are made to pay over user defined months in the future	Std	
113	Provides ability to create payment plans based on time length by selecting amounts to include and have system calculate amount of each payment	Std	
114	Provides ability to create payment plans based on desired payment amount and have system calculate length of arrangement	Std	
115	Generates on-line the initial payment schedules and amounts	Std	
116	Allows payment plans to be limited to customer accounts with user defined criteria	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

117	Provides ability to display amount of payment plans on the bill as a separate line item and be part of the total owed	Std	
118	Allows a customer to obtain a payment plans by telephone (IVR)	Std	
119	Payment plans process interfaces with the Internet to allow a customer to obtain a payment plans via the web	Std	
120	Notifies staff when promise to pay date has expired and/or payment was not received	Std	
121	Automatically updates account status upon execution/approval of payment plans	Std	
122	Issues, routes and tracks payment plans requests and agreements for review and approval	Std	
123	Provides ability to limit number of payment plans or payment extensions granted to customer based on business rules (e.g. number per year, credit history, total amount, etc)	Std	
Assistance Programs			
124	Displays banner message with assistance program eligiblity and terms when viewing account	Std	
125	Allows user to view any payments applied via utility assistance programs on account screen	Std	
126	Provides ability to support payment plans	Std	
127	Applies business rules to manage assistance program logic. Ex. Water assistance applies to water and wastewater service	Std	
128	Allows assistance program discounts to be applied easily to specific customer groups without the use of scripts (e.g. tax relief)	Std	
Bankruptcy			
129	Allows account to be automatically closed upon notification that a customer has filed for bankruptcy	Std	
130	Allows amount owed at the time of banksruptcy filing to be sequestered from future charges automatically	Std	
131	Allows account to remain open upon notification that a customer has filed for bankruptcy. System separates pre-filling debt from newly incurred debt	Std	
132	Indicates on the new account that the customer has filed for bankruptcy on an old account	Std	
133	Provides ability to stop the delinquency process for a bankruptcy customer for the amount due at the time of filing to prevent the service from receiving notices, being disconnected for non-payment or going to a collection agency for the closed account	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

134	Provides ability for pre-bankruptcy debt to become active following dismissal of bankruptcy	Std	
135	Provides ability to automatically revert debt to original AR following dismissal of bankruptcy	Std	
136	Provides ability to exclude debt under bankruptcy from open AR totals	Std	
137	Provides ability to generate a deposit letter for post bankrupt account(s) requesting for an additional deposit	Std	
138	Provides ability to easily convert delinquent balance to current past due balance where case is dismissed	Std	
139	Identifies and maintains bankruptcy information on the customer account; upon notification that a customer has filed for bankruptcy, the account is closed on a user defined date after filing	Std	
140	Provides for the on-line review of the amount owed by customers who have filed for bankruptcy	Std	
141	Tracks the type of filing and payments received	Std	
142	Provides for tracking of dismissals and discharges	Std	
143	Indicate on the new account that the customer has filed for bankruptcy on an old account	Std	
144	Provides ability to manage bankruptcy through a workflow	Std	
145	Applies payments received from the bankruptcy courts in a user prescribed allocation	Std	
Deceased/Executor			
146	Identifies a customer as deceased and assign an executor to the account	Std	
147	Provides ability to automatically remove authorized user or POA when account is flagged as deceased	Std	
Small Claims			
148	Generate a batch table or report of accounts eligible for small claims processing based on small claim criteria	Std	
149	Flag account and track notice and claim filing dates	Std	
Unauthorized Use			
150	Provides ability to establish and update misuse criteria	Std	
151	Provides ability to set "tamper" alert at location	Std	
152	Generate an unauthorized consumption batch report based on account history, billing and other misuse criteria	Std	
153	Provides ability to flag, track and monitor account for unauthorized use	Std	

Exhibit 3 - System Requirements Spreadsheet

Credit & Collections

154	Provides ability to flag, track and monitor damage to assets	Std	
155	Provides ability to generate service orders for an entire batch of accounts or partial group of accounts flagged for unauthorized use or consumption, including by meter reading route	Std	
156	Provides ability to support user defined collection rules	Std	
157	Provides ability to calculate and apply applicable fees based on information on completed service order or claim form (example: lock fees, etc.)	Std	
158	Provides ability to electronically issue, route and track damage claim forms	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor Comments
General Financial			
1	The system acts as a receivables subsidiary ledger keeping all debit and credit transactions in balance.	Std	
2	Every transaction is double recorded (debit and credit)	Std	
3	Secures real-time interface between payment processors and CIS. Interface to automatic update accounts as they pay via IVR, internet, lock box, EFT, web, credit/debit card etc.	Std	
4	Provides ability to scan and attach to journal entries	Std	
General Ledger			
5	Maintains a table of GL numbers that can be used by the system	Std	
6	Allows at least 30 alpha/numeric characters for the GL number	Std	
7	Allows a user defined account mask to be applied against the GL number	Std	
8	Automatically exports summary GL to ERP system (daily and monthly)	Std	
9	Provides reports to reconcile CIS to GL easily (daily/monthly/yearly)	Std	
Multi-Company/Jurisdiction/ Location Overrides			
10	Provides for customer type and multi-company/jurisdiction general ledger processing - each financial transaction can be assigned to a specific customer type and company/jurisdiction	Std	
11	Allows each financial transaction to be assigned to more than one specific company/fund	Std	
12	Provides for financial reporting separation by premise location or area within a company/jurisdiction - each financial transaction is assigned a location or area override	Std	
Accounts Receivable			
13	Tracks all line items that have not been paid	Std	
14	Maintains the detail components of each accounts receivable balance (e.g. water service balance, water consumption balance, sewer balance, surcharge balance, tax balance, fee balance and penalty balance)	Std	
15	Provides ability to generate/transfer Journal entries for daily/monthly revenue, cash, and deposit updates	Std	
16	Provides reports with breakdown of AR type distribution	Std	
17	Allows receivable balances to be segregated by jurisdiction, service, and customer type	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
	Cash Receipts		
18	Supports transaction codes that maintain the account distributions for defined transaction types. e.g. the code could automatically distribute cash debit and revenue credit to appropriate GL account	Std	
19	The system supports cash drawer reconciliation procedures. (batch controls, drawer balancing, etc.)	Std	
20	Provides a clearinghouse account for incoming payments that are wire transfers or direct deposits	Std	
21	Maintains information about the payment (e.g., payment type cash, check, EFT, etc., when received, payment batch, etc.)	Std	
22	Allows multiple cash accounts (GL accounts) to be maintained for different cash receipt sources. (e.g., cashiering, remittance processing, lock box, EFT, credit card)	Std	
23	Allows financial transactions to move credit balances to escrow account on closed accounts with uncollected refunds	Std	
24	Allows for payment batches to be created by payment type and all defaults (payment type, tender method, etc.) are defaulted based on payment batch type.	Std	
25	Provides ability to support check scanners	Std	
26	Provides Cash Receipt Report summarized by receipt type	Std	
	Payment Processing		
27	Receives and posts payments from an unlimited amount of payment channels/vendors including but not limited to the following:	Std	
28	>Payment processors	Std	
29	>Bank (virtual lockbox, EDI, various bank files, online bill payment from banks, third parties)	Std	
30	>Low Income Programs	Std	
31	>Collection Agencies	Std	
32	All payments (for utility bills and invoices) shall be taken through one payment screen	Std	
33	Displays all open invoices for a particular customer during cash receipts posting	Std	
34	Collects information on form of payment (cash, check, credit card, etc.)	Std	
35	Accepts payment from non-utility customers	Std	
36	Provides ability to re-allocate mis-applied payments to correct entity	Std	
37	Provides ability to receive pledges for assistance and process assistance payments to customer accounts in bulk	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
38	Accepts payment for miscellaneous items that are not associated with an account (e.g. maps, copies, etc.)	Std	
39	Allows the same payment to be applied to multiple open items	Std	
40	Processes master account payments; single check covering multiple accounts and allocate payment to each account properly	Std	
41	Payments are reflected in customer account balance immediately after the transaction is entered into the system	Std	
42	Provides ability for system to track the number of payments by type, department, and dollar amounts	Std	
43	Provides alerts for cashiering applications - vendor or third party	Std	
44	Provides ability to charge back credit fees to the customer	Std	
45	Provides ability to attach correspondence/documents submitted with payment to account as appropriate	Std	
46	Provides ability to generate/send payment receipt directly from system as needed/requested (email, text message, etc)	Std	
47	Provides ability for endorsing checks and validating a customer's utility bill or printing a receipt on paper	Std	
48	Provides ability to print unlimited, user defined information on receipt, including but not limited to transaction time, date, operator code, amount paid, amount posted, change and customer balance, as well as free text message or email	Std	
49	Provides sequential receipt numbers within a department, so users can tell at a glance if any are missing	Std	
50	Provides ability to create a daily receipt report that lists each unique receipt number once, providing the detail as a sub	Std	
51	Provides ability to print cash receipts reports by cashier and payment type	Std	
52	Supports cash drawer reconciliation procedures for unlimited number of cash drawers (batch controls, drawer balancing, etc.)	Std	
53	Provides ability to receive customer account data on wire transfer, and automatically post to CIS account when funds are received	Std	
54	Provides ability to take multiple payments of the same amount on the same account on the same day	Std	
55	Processes payments from remote payment locations (e.g. drugstores and kiosk)	Std	
56	Records the date and batch ID of the payment	Std	

Autopay

Item	Requirement	Response	Vendor
57	Allows autopay to be set up using ACH or credit card - Without the need to store the credit card	Std	
58	Allows the ability for customers to manage their autopay via web portal	Std	
59	Allows utility to manage customer's autopay enrollment directly in CIS	Std	

Exhibit 3 - System Requirements Spreadsheet

	Financial		
Item	**Requirement**	**Response**	**Vendor**
60	Allows customer to manage payment date(bill date, due date or other)	Std	
61	Requires autopay on budget billing account	Std	
62	Provides ability for customer identify cap amount. No cap is available as an option	Std	
63	Allows separate bank draft cap for residential and commercial	Std	
64	Autopay receipts shall be displayed on the bill remittance and be identified as Autopay	Std	
	ACH		
65	Provides a process to manage the setup, documentation, prenote, processing and termination of the ACH	Std	
66	Tracks bank ID information in a table for validation	Std	
67	Encrypts bank account information	Std	
68	Processes denied funds transfers and bill required late and NSF fees	Std	
69	Provides ability to automatically send electronic confirmation / receipt to customer when payment has been made	Std	
70	Provides ability to automatically cancel a pending ACH draft if a sufficient payment from another source is processed before the draft initiated	Std	
71	Adjusts ACH draft if partial payment made on account	Std	
72	Adjusts ACH draft amount for cancel/rebill	Std	
73	Allows application of fees for returned ACH payments	Std	
74	Allows automatic adjustment of drafts to account for balance forwards or credit applied	Std	
	Credit Card		
75	Supports an automated credit card interface and shall receive payments and print receipts	Std	
76	Provides ability to support credit card payments through the use of tokens	Std	
77	All credit card billing shall be PCI compliant	Std	
78	Offers digital credit card billing	Std	
79	Allows to charge credit card processing fees based on payment location (in person vs. online)	Std	
	IVR		
80	Accepts payment over the phone for credit cards	Std	
81	Accepts payment over the phone for direct bank debits	Std	
	Web		
82	Accepts payment over the web for credit cards	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
83	Accepts payment over the web for direct bank debits	Std	
84	Provides ability to support Apple Pay, Google Pay, etc.	Std	
	Payment Allocation		
85	Allows Credits to be applied to individual service, not entire bill	Std	
86	Provides ability to post payment to account by aging of receivables of all services	Std	
87	Provides a global user defined hierarchy for payment allocation (e.g. deposits, sewer, water)	Std	
88	Provides an account specific override hierarchy for payment application	Std	
89	Allows short payments to be automatically allocated against all line items on the invoice in proportion	Std	
90	Allows the user to define which line items get applied to a short payment on an invoice by invoice basis	Std	
91	Allows utility to define where to place overpayment amounts	Std	
92	Allows user to view unapplied payments	Std	
93	Provides both an automatic and manual/batch process for redistribution of credit balances	Std	
94	Allows for posting payments to several accounts from the total amount shown on one check using business rules, with capability to manually override	Std	
95	Allows payment distribution rules to be configured to prevent automatic distribution of payments to open items having bankruptcy status	Std	
96	Provides a method to reapply a payment already applied to an account	Std	
	Reconciliation		
97	Provides ability to generate an exception report or table to support review and reconciliation of payment exceptions	Std	
98	Provides ability to produce credit card receipt reports that match deposits by payment type	Std	
99	Payment processor must deposit directly to City's bank account at gross amount.	Std	
100	Provides a simple, efficient way to review and reconcile exceptions, online and in paper	Std	
101	Provides ability to automatically reconcile payments from master/group billing	Std	
102	Provides ability to generate detailed payment audit trail	Std	
103	Provides ability to investigate and resolve unposted account (e.g. payments with invalid account numbers) within CIS	Std	
	Payment Reversals		
104	Allows payments to be reserved for a specific service	Std	
105	Provides ability to record details and payment cancel reason	Std	

Exhibit 3 - System Requirements Spreadsheet

	Financial		
Item	**Requirement**	**Response**	**Vendor**
106	Provides ability to transfer funds across accounts	Std	
107	Original transaction details shall transfer with funds across accounts	Std	
108	Provides ability to attach banking documents for auditors when transferring balances	Std	
Deposits			
109	Provides ability to credit or refund deposits with calculated interest	Std	
110	Provides ability to assign deposits based on internal system credit rating	Std	
111	Provides ability to assign deposits based on an interface with an external credit rating system	Std	
112	Provides ability to assign deposits based on service, rate and/or device types	Std	
113	Provides ability to set and maintain deposit interest rates with schedule start/stop dates	Std	
114	Provides ability to calculate and credit interest accrued on deposits held when account is closed	Std	
115	Provides ability to calculate and credit interest accrued on deposits held annually on specified month	Std	
116	Provides ability to waive deposits for a builder service type (deposit shall apply to end customer when established)	Std	
117	Tracks deposits by service type that are recorded in separate GL accounts (separate company/fund)	Std	
118	Maintains default deposit amounts based on service type (Water, Sewer, etc.), Account Class (Residential, Commercial, etc.) and Meter Size	Std	
119	Provides ability to automatically calculate and apply a deposit, if autopay canceled in less than 23 month history	Std	
120	Allows deposits to be broken into payments over a series of months without the use of a payment arrangement	Std	
121	Allows monthly increments to appear in the monthly bill	Std	
122	Specifies the remittance method. (e.g. cash only, separate bill, next utility bill, etc.)	Std	
123	Allows deposit to be applied after initial account creation	Std	
124	Allows system calculated deposits to be overridden	Std	
125	Automatically places hold on-orders pending payment of deposit	Std	
126	Provides ability to spread deposit amount across all services in the account	Std	
127	Applies a deposit against an account balance or against a single service	Std	
128	Automatically applies the deposit to the account balance when closing an account based upon user criteria	Std	
129	Automatically keeps a deposit with an customer when the customer moves out and in to a different premise in utilities service area	Std	

Exhibit 3 - System Requirements Spreadsheet

	Financial		
Item	**Requirement**	**Response**	**Vendor**
130	Allows deposits to be refunded at the utilities discretion or some defined event (e.g. good payment history for 24 months)	Std	
131	Provides ability to take a deposit over the phone; following all PCI compliant regulations	Std	
132	Provides ability to hold a deposit when required and not refund based on refund criteria (bankruptcies, portables, etc.)	Std	
133	Provides ability to identify deposits that do not meet the utilities refund criteria	Std	
	Account Adjustments		
134	Accommodates miscellaneous dollar adjustments to an account	Std	
135	Allows adjustments over a user defined dollar amount to be approved by user with appropriate rights before it can be posted to account; at least three levels of approval are available	Std	
136	Accommodate usage adjustments to an account and automatically calculate the dollar amount based on all billing components including rates, surcharges and	Std	
137	Usage adjustments can be kept in usage history	Std	
138	Provides ability to create adjustments utilizing GL codes defined in system	Std	
139	Provides ability to generate journal entry report to reflect all charges, GL, by account number, type of adjustments including manual journal entries	Std	
140	Provides ability to reverse or void adjustments and system records correct GL account entries	Std	
141	Allows adjustments to be billed on a one time bill or billed during next scheduled account billing	Std	
142	Provides ability to recalculate interest when an adjustment is made (e.g. contracts)	Std	
	Predefined adjustment types including:		
143	> Billing	Std	
144	> Payment	Std	
145	> NSF	Std	
146	> NSF Chargeback	Std	
147	> User Defined	Std	
	Returned Payments		
148	Provides ability to process NSF automatically or manually that will debit the account and bill the required late charges and NSF fees	Std	
149	Provides ability to waive NSF penalty or fees	Std	
150	Allows user to select the payment from which the NSF originated and the reversal shall mimic the way the payment was originally applied	Std	
151	Allows NSF fee to be automatically applied upon establishing the NSF charge back	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
152	Allows an automatic NSF fee application to be overridden without creating a reverse entry before posting to the account	Std	
153	Creates a user defined credit score event for NSF transactions	Std	
154	Provides on-line review or report of NSF account activities	Std	
155	Allows NSF charge to be apportioned out to the appropriate funds based on user defined rules	Std	
156	Provides ability for NSF transaction to automatically generate a letter to the customer	Std	
Payment/Commission Commitments from Third Parties			
157	Provides ability to generate and track payment commitment agreements and associated payments from Third Party organizations (Red Cross, Salvation Army, etc.)	Std	
158	Provides ability to include balance and payment commitment information on customer bill	Std	
159	Automatically updates account status upon execution/approval of payment commitment	Std	
160	Automatically generates electronic notification/alert when agreement is close to expiration, or when commitment payment is not received	Std	
161	Provides ability to protect customers with commitments for payments from defined delinquency actions for x number of days beginning on the date of the commitment	Std	
162	Provides ability to automatically cancel commitment after x days and resume collection process	Std	
163	Provides ability to notify customer by letter, email or text x days prior to end of commitment period, if payment is not received	Std	
164	Provides ability to manually cancel any commitments and resume collection process	Std	
History			
165	Maintains a three-year history of bills and accounts	Std	
166	Maintains all receipts history per account until purged	Std	
Reporting			
167	Supports invoice reports by jurisdiction/department/fund code and GL account	Std	
168	Supports payment/credit reports by jurisdiction/department/fund code and GL account	Std	
169	Creates aging reports by jurisdiction/department/fund and customer	Std	
170	Tracks the number of accounts billed by service type, classification and revenue period	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
171	Tracks interest paid on deposits by cycle and revenue period	Std	
172	Provides ability to run a report and generate a file for interest paid on deposits over $10 per IRS	Std	
173	Creates Daily Cash Receipts reports by payment source (e.g., Cashiering, Remittance Processing, Lock Box, EFT, Credit Card, etc.)	Std	
174	Creates A/R balance reports by balance amount	Std	
175	Creates refund reports by time and date range	Std	
176	Creates error reports for misapplied cash payments (closed or inactive accounts, bad account number, etc.) by source. (e.g., Cashiering, Remittance Processing, Lock Box, EFT, Credit Card, etc.)	Std	
	Revenue		
	Billing Revenue		
177	Allows each discrete billing component (base charge, consumption charge, surcharge, tax, fee, etc.) to have its own revenue code or GL number	Std	
178	Allows each discrete billing component to also have a unique revenue code or GL number based on service type (e.g. Water, Sewer, etc.)	Std	
179	Allows each discrete billing component to also have a unique revenue code or GL number based on account class (Residential, Commercial, etc.)	Std	
180	Supports account overrides - account overrides allows the GL account coding to be modified without having to create a new rate; one rate can have multiple account distributions based on account overrides	Std	
	Un-Billed Revenue		
181	Calculates unbilled revenue for the period between account services last bill date and end of reporting period - fixed or flat rate charges shall be prorated based on system proration types and consumption based charges will be estimated based on system estimation types	Std	
182	Allows unbilled revenue to be calculated differently for different services	Std	
183	Calculates unbilled revenue calculations based on user-defined criteria, such as loss factors, water production factors	Std	
184	Allows unbilled revenue calculations to be exported to the Financial system	Std	
185	Allows unbilled revenue report to be run at any date in the reporting period	Std	
	Bill-in-Advance		
186	Calculates the unearned revenue adjustment for revenue billed beyond the period end date for bill-in-advance services	Std	
	Refunds Payable		
187	Provides ability to issue complex credit balance refunds across multiple accounts, can be applied by service type or account type	Std	
188	Provides ability to process refunds for credits to inactive accounts	Std	

Exhibit 3 - System Requirements Spreadsheet

Financial

Item	Requirement	Response	Vendor
189	Refunds shall automatically include interest generated	Std	
190	Allows requests for cash refunds to be automatically processed- default is refund to account	Std	
191	Automatically screens credit amounts and premise history to ensure only inactive accounts are refunded	Std	
192	Provides ability to reverse credit refund check	Std	
193	Accumulates and displays on-line or report all credit balances with account status, as of a user defined date	Std	
194	Allows credit balance refunds to be processed in batch	Std	
195	Allows user to assign a GL account to the refund payable as an override the system shall choose the GL	Std	
196	Allows user to select the accounts to move forward in the refund process	Std	
197	Allows user to adjust the credit balance amount and shall create the appropriate adjustments to the account and GL	Std	
198	Allows for the transfer of credit balances to other accounts from the same customer	Std	
199	Allows for the transfer of credit balances to other accounts to a different customer account	Std	
200	Allows users to transfer a portion of the credit balance and refund the remaining balance	Std	
201	Updates appropriate GL accounts when credit balance refunds are posted	Std	
202	Prints a journal for all credit balance refunds processed	Std	
203	Accommodates the calculation and issuance of tax refunds	Std	
204	Provides a user defined threshold for selecting credit balances for refunds processing. (e.g. all credit balances over $ x.xx)	Std	
205	Provides ability to refund credit balances on closed accounts automatically. Sending each refund to a work queue for approval.	Std	
206	Provides ability to refund credit balances on active accounts as needed	Std	

Exhibit 3 - System Requirements Spreadsheet

	Contacts		
Item	**Requirement**	**Response**	**Vendor Comments**
	Contact Types		
	All contact types listed below shall be created, received, stored, tracked and managed by system and linked to a Customer or Account:		
1	>Inbound Telephone Calls through Current Technology IP Phone System	Std	
2	>Inbound Text Message through Current Technology IP Phone System	Std	
3	>Inbound Telephone Calls through IVR	Std	
4	>Inbound Contact via email	Std	
5	>Inbound Contact via Kiosk	Std	
6	>Inbound Contact via Walk-In	Std	
7	>Inbound Contact via Chat	Std	
8	>Inbound Contact via WEB Portal	Std	
9	>Outbound WEB portal Notification/Alert auto-generated by system	Std	
10	>Outbound Call auto-generated by system	Std	
11	>Outbound Letters auto-generated by system	Std	
12	>Outbound Letters manually generated by user	Std	
13	>Outbound Text auto-generated by system	Std	
14	>Outbound Text manually generated by user	Std	
15	>Outbound email auto-generated by system	Std	
16	>Outbound email manually generated by user	Std	
	Contact Setup		
	Shall provide full featured contact system that captures and tracks all contacts from a Customer or Account including the following fields:		
17	> User Defined Contact types / reasons	Std	
18	> Contact Status	Std	
19	> Contact Create Date	Std	
20	> Contact Create Time	Std	
21	> Contact Create User	Std	
22	> Contact Description (including unlimited text) (State field size)	Std	
23	> Contact Closed Date	Std	
24	> Contact Closed Time	Std	
25	> Contact Closed User	Std	
26	> User Defined Fields (list how many in comments)	Std	
27	> Provides ability to report on contact types	Std	
28	Supports multiple call types on one call	Std	

Exhibit 3 - System Requirements Spreadsheet

Contacts

Item	Requirement	Response	Vendor
29	Supports unlimited user defined contact types	Std	
30	Contacts can be configured to auto-create predefined service orders	Std	
31	Provides ability to load contacts from Excel spreadsheet and delimited file	Std	
32	Provides ability to create contacts from anywhere in the system	Std	
Contact Management:			
33	System automatically captures date and timestamp when the contact was made	Std	
34	Call interaction can't be closed until a note is entered	Std	
35	Provides customer service back office dashboard for analyzing contacts and performance	Std	
36	Provides contact tracking and prompts users for follow up, with timing based on contact type and status	Std	
37	Contacts are automatically created for open service orders	Std	
38	Allows user to view Service Order status from Contact screen	Std	
39	Provides ability to survey customers related to contacts to monitor customer satisfaction	Std	
40	Allows user to attach notes to premise	Std	
41	Allows user to view on-line all open contacts	Std	
42	Allows contacts to be configured to create and send outbound predefined letters, faxes, emails, or text messages when closed	Std	
43	Provides hierarchy for preferred outbound contact method, (e.g. email, fax, letter, text message)	Std	
44	Selects preferred method based on fields populated, (e.g. email address available, fax number available, etc.)	Std	
45	System shall not allow Contacts to be deleted	Std	
46	Provides the ability to undo if an error is made while maintained data integrity	Std	
47	Provides ability to identify target customers for campaigning and notifications, including defining target customers by drawing a GIS-based polygon	Std	
48	Provides ability to further refine target customers identified for campaigns and notifications by GIS-based polygon method using additional attributes	Std	
49	Provides ability to prevent updating a closed customer contact after a user defined number of days	Std	
50	Provides ability to track to customers/contact and maintain contact history	Std	
51	Provides ability to mail merge letters	Std	
52	Provides ability to add notes/comments to contacts, to include spell check and pre-defined templates for various note types	Std	

Exhibit 3 - System Requirements Spreadsheet

Contacts

Item	Requirement	Response	Vendor
53	Provides ability to only allow the author of the comment to change the comment and only within a user defined number of days	Std	
Contact Inquiry			
54	Provides ability to view on-line contacts by customer	Std	
55	Provides ability to view on-line contacts by account	Std	
56	Provides ability to view on-line contacts by user	Std	
57	Provides ability to view on-line contacts by status	Std	
58	Provides ability to view on-line contacts by type	Std	
59	Provides ability to view on-line contacts by date	Std	
Outbound notifications			
60	Provides ability to create notification to customer (via IVR, text or email) notifying of major account changes such as turn on or turn off	Std	
	Contacts customers via outbound Letters/emails created by system from templates for the following types of letters:		
61	> Rate change	Std	
62	> Demand increasing	Std	
63	> Water Quality	Std	
64	> Cross Connection	Std	
65	> Leak Letters	Std	
66	> NSF letters	Std	
67	> Welcome letter (all services)	Std	
68	Provides ability to easily alter predefined template letters, and to easily create new letters without vendor assistance	Std	
69	Provides ability to easily create and generate campaigns, water advisories, and other public information notices/documents based upon customer type; account type; account status; billing cycle; meter reading routes; and services via email, letter, IVR and/or text alerts	Std	
70	Stores system generated letters, emails, and faxes with the account	Std	
71	Provides ability for system to contact customers via outbound email created by system from templates	Std	
72	System generated emails shall be stored with the account	Std	
73	Provides ability to contact customers via outbound faxes created by system from templates (e.g., lawyers with bankruptcy)	Std	
74	Provides ability to set delivery preference method (e.g. e-mail; print; text)	Std	
75	Provides ability to print letters on demand	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Self-Service Portal

Item	Requirement	Response	Vendor Comments
	WEB Portal		
1	Provides ability to access the portal via any major web browser on any computer, laptop or mobile device, or via installed mobile app on mobile devices	Std	
2	Provides ability to access and download the mobile app FREE OF CHARGE from all major App stores (e.g. the Apple and Google Play Store)	Std	
3	Provides ability for citizens to easily receive notification and allow upgrade to latest version of App when new fixes or new functionality released	Std	
4	Provides ability to add/update messages for web browser/version requirements	Std	
5	Web portal utilizes responsive web design to provide consistent and smooth customer experience regardless of screen size or orientation of the device being used to view it	Std	
6	Portal and app follow usability best practices. Users can easily identify any calls to action or instructional prompts and easily interact with system to complete tasks	Std	
7	Portal is integregated with Connect Kingsport App allowing users to go from the portal to the App and back with SSO.	Std	
8	Provides ability to view cancel-rebills. Provides ability to view summary bill or individual bills. Stores original copies.	Std	
9	Provides ability to support warnings, alerts, news flash windows and pop-ups within portal and app (ex. weather alerts, safety alerts)	Std	
10	Provides ability to configure messages and alerts to specific customers or customer groups (ex. Leak alerts)	Std	
11	Provides ability for customers to set up usage thresholds (consumption units or dollar amount) to receive alerts as needed	Std	
12	Provides ability to manage information on the Portal for customer programs and outbound programs	Std	
13	Allows customers to set up and manage water budget	Std	
14	Provides meaningful or instructional error messaging throughout solution and across all access channels when user is not adhering to requirements, or when action would violate data integrity	Std	
15	Provides ability of the portal to enable rapid deployment of new users and administration of existing users. Provides ability of customers to easily set up portal account/login, verified through linkage with CIS data	Std	
16	Provides ability for users to easily manage profile details, manage preferences, change or reset password, provide site or app feedback, etc.	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Self-Service Portal

Item	Requirement	Response	Vendor
17	Automatically sends electronic notification to designated staff when customer updates information on customer self-service portal	Std	
18	Portal is synchronous with CIS and what CSRs view, to extent possible	Std	
19	Retrieves and displays Cash Only Flag to customers marked with the flag in CIS	Std	
20	Meets federal ADA regulations. Preferred if meets Florida or California ADA standards	Enhance	Does KP have a standard? 2.1 , A, AA,
21	Provides ability to have 2 factor security log-in	Future	
22	Provides ability to view and manage portable meters/temporary accounts in portal.	Std	
23	Provides Online Chat, texting and FAQ capabilities- generates responses and questions for customer and connects to available CSR when needed	Std	
24	Supports multiple languages (English and Spanish at a minimum) for portal and chat, selected by customer	Future	
25	The portal enables real-time translation of chat communications to and from English for the multiple languages supported	Future	
26	Provides ability to email utility and receive email in contact system linked to customer or account	Std	
27	Provides web users with special status information like past due, disconnect date, meter/service on or off, etc.	Std	
28	Displays messages based on screens open (e.g. service order screens display service order messages, account screens show account based messages, etc.)	Std	
29	Provides ability for a customer to link multiple accounts with a single sign-on to view information on multiple accounts	Std	
30	Provides ability for multiple online user accounts to manage the same utility account	Std	
31	Provides ability to easily access account, payment, meter and meter usage information on the same screen	Std	
32	Provides ability to display water consumption profiles by integrating with Harmony Portal	3rd Party	
33	Provides ability to configure how many months of consumption, billing and payment history are viewable (ex. 13 months)	Std	
34	Provides ability for customer to view graphic display of usage/billing same time last year	Std	
35	Provides ability for customer to view service order history, including customer created orders	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Self-Service Portal

Item	Requirement	Response	Vendor
36	Provides ability to see average usage of customers in surrounding geographic area	Future	
37	Provides service request capability including emergency, on/off, transfer, termination, etc.	Std	
38	Provides meter and device request capability including portable/temporary meter process, reread, repair, etc.	Std	
39	Provides ability to fill out forms (e.g. request for service) and have that automatically pre-populate a form in CIS in an approval queue	Std	
40	Provides notification to customer when request is under review and complete	Std	
41	Provides ability to schedule service orders related to customers requests by allowing customer to select a date and time based on available appointment windows from an integration with Cartegraph.	Enhance	Integration with appt booking…currently not in scope…we have an appt booking integration…being used by NMG
42	Provides ability to check real-time status of service orders (linked to mobile)	Std	
43	Provides ability for personalized rate modeling	Future	
44	Provides automated letter of credit	Enhance	Mod…not in scope
45	Provides ability to easliy deploy customer surveys to portal users and analyze results	Std	
46	Provides ability to aid landlords in managing their associated rental properties through the Portal (ex. Set up revert to landlord, notification options, etc)	Std	
47	Provides integration with IVR for telephone payments, check by phone payments	Std	
48	A customer has the ability to request an add, repair, change, or removal of solid waste carts or other equipment through the Portal.	Std	
	WEB Payments		
49	Provides ability to have customers setup and update ACH information on-line	Std	
50	Provides ability to send email or text to customer to confirm ACH setup and payment	Std	
51	Provides for one time payment of bill via web using ACH/credit card	Std	
52	Provides ability to set up payment arrangements	Std	
53	Portal must have SSO with payment processor	Std	
54	Provides for one time payment of multiple bills with single ACH/credit card transaction	Std	
55	Provides ability to pay using Apple Wallet, Google Pay, Venmo	Std	
56	Provides ability for customers to enroll and manage autopay	Std	
57	Provides ability to set up recurring payments with ACH or credit card	Std	

Exhibit 3 - System Requirements Spreadsheet

Customer Self-Service Portal

Item	Requirement	Response	Vendor
58	Provides ability to stop and manage recurring payments (ex. changing payment method)	Std	
59	Provides ability to select amount and when to make a payment and recurrent payments (bill date, due date, 13th day of the month, etc.)	Std	
60	Allows customer to be excluded from penalties when on autopay until payments get cancelled for NSFor similar	Std	
61	Provides ability to setup and update budget billing based on rules in CIS	Std	
62	Allows customers to be directly invoiced via miscellaneous revenue (invoicing) functions independent of having a utility billing account and make the payments on-line or via IVR	Std	
	WEB Bills		
63	Provides presentment of bill via web	Std	
64	Bill image on web match print/mailed bill	Std	
65	Provides ability for customer to enroll and manage paperless billing	Std	
66	Provides ability to track changes to email and paperless billing setup	Std	
67	Provides ability to view miscellaneous charges listed on regular monthly bills and/or miscellaneous bills	Std	
68	Provides ability, but not restricted to automatically revert to paper bills upon past-due or delinquent status	Enhance	it's a configuration (user exit from NMG)
69	Provides ability to automatically revert to paper bills upon undeliverable email (system can process bounced emails, undeliverable, full mail, etc.)	Enhance	Business process not a change to the system…not automatic. Can autojob do it?
70	Provides automatic email or text notification to customer of latest bill	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor Comments
	General Requirements		
1	Allows for submission, tracking, assingment, and worklow of service requests from multiple departments	Std	
2	Provides ability to associate requests to none, one or multiple defined workflow paths.	Std	
3	System shall automatically assign a unique ID or tracking number for each request entered. Unique ID shall include elements configured to differentiate requests by department	Std	
4	Provides ability to apply field-based conditional logic and rules to modify or build service requests, including but not limited to Provides ability to to select correct workflow path, show or hide fields or optional responses and mark a field as required	Std	
5	Provides a robust, user friendly "form builder" to clone and modify existing request templates or build new ones	Std	
6	Provides ability to check for past due activities and provide automatic notification via system to users associated with request	Std	
7	System shall capture audit trail details related to any request or updates made to the request during processing, including but not limited to date and time, user ID, manual changes and system changes such as comments, status change, priority change, etc.	Std	
8	Provides ability to check for past due activities and provide automatic notification via system to users associated with request	Std	
9	Provides ability to clone an existing request or use a defined template to create a new request	Std	
10	Provides ability to enable or disable request templates for use	Std	
11	Provides ability to assign dual/multiple user ownership for a request type	Std	
12	Provides ability to configure hierarchical escalation for individual request types, either manually or via business rules, upon status change, priority change, etc. System identifies recipients for escalation notifications	Std	
13	Provides ability to bulk update requests based on specific attributes	Std	
14	Provides ability to configure automatic emails, notifications, alerts, etc. for requests based on specific events or triggers	Std	
15	Provides ability to configure whether system will automatically send a survey via email upon closure of a request by individual request type	Std	
16	Provides ability to identify and filter requests by location, keyword search, priority level, owners, customer, property, date, etc.	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
17	Provides ability to access request detail via hyperlinks provided in notifications, alerts, or other communications that are external to the system.	Std	
18	Provides ability to create and submit new request for service	Std	
19	Provides ability to create and submit request for service disconnection	Std	
20	Provides ability to attach photos, videos, documents, etc., to new or existing request by request type	Std	
21	Provides ability to easily discern via visual indicator if a submitted request has attached images, documents, or comments	Std	
22	Provides ability to prompt user with meaningful messaging if required field or other validation requirements not met	Std	
23	Provides ability to link multiple related requests (automatically or manual) and provide corresponding notifications, updates, etc. to all parties	Std	
24	Provides automatic notification to customer via text or email for completion of different service request types	Std	
25	Provides ability to view related requests in a single consolidated view and provide method to optionally allow updates to all related requests - or on per request basis	Std	
26	Provides ability to meet data integrity and data security requirements and prompt users with user-friendly preventive options or messaging to protect data integrity	Std	
27	Provides ability to view service request details including history, comments, status, progress, etc. real time	Std	
28	Provides ability to interact with search results, including sorting, filtering, select requests from seach results and view details and return to persisted search results	Std	
29	Provides ability to manage settings related to notifications and alerts received	Std	
30	Provides ability to close/reopen requests (as per configuration settings)	Std	
31	Provides ability to receive notification when request is assigned to me and when request assigned to me is updated or cancelled	Std	
32	Provides ability to see dashboard with details specific to my requests	Std	
33	Provides ability to see and complete service requests from in the field via mobile device	Std	
34	Provides ability to manage settings related to notifications and alerts received	Std	
35	Provides ability to access all requests submitted by single profile/identity	Std	
36	Provides ability to access all requests submitted for a specific location or within a specified radius of specific location	Std	
37	Provides ability to access all requests for a specific geo-location layer (e.g. region, district, precinct, neighborhood) and view in an inneractive map view - with zoom in/out Provides ability, etc.	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
38	Provides ability to edit requests and fields in requests tied to roles and permissions	Std	
39	Provides ability to build workflow for held service orders, with automated processing and notification of customers and users. Workflow is based on user-defined factors (e.g. "new meter shipment"). Provides ability to place the order on hold, based on selected codes (e.g. "can't access meter")	Std	
40	Provides ability to prevent closure of a request until all worker assignments / approvals have been resolved and any mandatory fields are completed	Std	
Service Order Types			
	Allow users to define service order types and shall accommodate the following major service order functions:		
41	> High priority / emergency Service Order	Std	
42	> Turn On and Off orders, including capture of closing/opening meter reads	Std	
43	> Meter/register changes to capture final meter read of old meter and log new meter read start number for new meter	Std	
44	> Meter reread orders to validate meter readings or capture missed reads	Std	
45	> Shut-off or disconnect orders to turn off, lock or remove meters	Std	
46	> Sewer plug/Elder valve	Std	
47	> Field service maintenance and designated service order types (e.g. transfer order to Field Operations)	Std	
48	> Billing (e.g. high bill) related Service Order	Std	
49	> Exception errors related Service Order	Std	
50	> Sanitation - (cart pick up/delivery)	Std	
51	> Meter/Device set orders	Std	
52	> New service tap orders (e.g. Installs, Connects, etc.)	Std	
53	> Water violation related Service Order	Std	
54	> Backflow test orders	Std	
55	> Inspect/Test Meter, including flushing meters	Std	
56	> Theft/tampering service orders	Std	
57	> User Defined	Std	
58	> Allows for grouping of service order types into user defined categories such as install date, equipment type and crew	Std	
59	System shall have flags for prioritizing service orders	Std	
Service Order Setup			
	On-line initiation of service orders capturing the following data elements:		
60	> System generated unique identifier	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
61	> User-definable service order type, status	Std	
62	> Associated parties	Std	
63	> Links (Customer, Account, Premise, Service, Meter, etc.)	Std	
64	> Service Order Task Description	Std	
65	>Tracks date and time of service order creation, scheduling, actual appointment times, and service order closing	Std	
66	Allows service orders to be generated for work where there is no account or premise	Std	
67	Service orders shall have user defined messages and/or flags that shall be displayed when appropriate	Std	
68	Provides ability to create service order forms (e.g. meter test form; backflow test form) and attach to account/service order (depending on the form)	Std	
69	Provides ability to create adhoc backflow service orders	Std	
70	Mass service order creation based on device age, route, geographic area (eg Geo Fence) or service type/rate, etc.	Std	
71	Provides ability to receive a warning when creating a service order for a location when an open service order already exists	Std	
Service Order Information:			
	Populate or link the service order with the following information:		
72	>Service Order Creator	Std	
73	> Account Information	Std	
74	> Premise Information and Location	Std	
75	> Service Information and Location	Std	
76	> Meter Information and Location	Std	
77	> Sanitation Cart Information and Location	Std	
78	> Delinquency Status	Std	
79	> User Defined	Std	
80	Provides ability to track and report information as needed by service type	Std	
81	Push notifications for changes to service orders	Std	
82	System shall not allow multiple service orders of the same type be created for the same service and meter at the same time.(e.g. duplicate turn on orders)	Std	
83	A service order for a specific type of service shall only be created if that service exists on the account/premise (e.g. water service order for water service)	Std	
84	Provides ability to create a service order for a premise, listing all services and meters at premise	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
85	Allows a service order to be created for a specific service only, listing all meters/equipment on service only	Std	
86	Allows a service order to be created for a specific piece of equipment, listing only that piece of equipment (user can select the meter, cart, etc)	Std	
87	Provides ability to see that other service orders exist at the same location	Std	
88	Emergency orders shall be color coded for visibility	Std	
89	Provides ability to automatically generate a 2nd order following the completion of a 1st order within a specified date range for certain order types	Std	
90	The service order format shall be customizable	Std	
91	Allows the service order to have attachments	Std	
92	Creates one service order for multiple tasks occurring at one premise	Std	
93	Provides ability to run report based on tasks	Std	

Service Order Processing

Account On & Offs

Accommodates the following service order processes:

94	> Turn-on which shall activate the account at the premise and collect an opening read	Std	
95	> Turn-off which shall remove account from premise, collect final read and prepare account for final billing	Std	
96	> Transfer Off/On order which shall remove account from one premise collect final read, move into new premise collect opening read and bill account for closing bill	Std	
97	Provides capability to check to see if pending off order exists and not issue separate order to collect read for turn on orders; links turn on order to turn off order for reading input	Std	
98	Includes cut-by date for disconnect service orders	Std	
99	Turn on orders cannot be scheduled until an off order is created for an active premise, and can be created same day as the turn off order	Std	
100	Shut-off orders shall be automatically created as part of delinquency process	Std	
101	Provides ability to automatically generate turn on service order when payment is received	Std	

Meter Changes

Accommodate the following service order processes:

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
101	> Meter change order shall remove meter from service, test and put back into inventory, collect final read, install new meter at service and collect opening read	Std	
102	> Meter register change shall update register (transponder ID also if AMR/AMI applicable) take final register read and opening register read	Std	
Fees & Charges			
103	Allows service orders to have charges associated to them that are billed to the account automatically when closed or created (e.g. t/on fees)	Std	
104	Provides ability to override fees associated with service orders	Std	
105	Allows charges on service orders to be established with user defined criteria including service order type, account details, premise details, service type, etc.	Std	
106	Associated charges shall be variable based on the service type	Std	
107	Allows standard charges to be overridden when order is closed	Std	
Service Order Management:			
Tracking			
108	Allow on-line tracking and maintenance of all service orders	Std	
	Track and filter service orders on-line by the following attributes:		
109	> Date Created	Std	
110	> Scheduled Date	Std	
111	> Completion Date	Std	
112	>Service Order Type	Std	
113	> Closed Date	Std	
114	> Crew or Group	Std	
115	> Creator	Std	
116	> Worker	Std	
117	> Closer	Std	
118	> Area or Work Zone	Std	
119	> Order Status (e.g. Pending, In-process, Closed, etc.)	Std	
120	Tracks orders that have been printed to avoid duplicate order printing	Std	
121	Provides ability to print duplicate service orders, if needed	Std	
122	Provides ability to generate electronic notifications regarding inquiry/service request status to customer and designated supervisors/staff as appropriate	Std	
Scheduling			
123	Provides for integration with Cartegraph to schedule service orders by technician, crew, route, area, date and/or time	Std	
124	Provides ability to schedule on and off orders for same premise together	Std	
125	Provide date and time window for scheduling an order	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
126	Provides on-line calendar showing service orders scheduled by technician, crew, area, date and time (not a report)	Std	
127	Provides ability for the user to define work calendar and work hours by crew/worker and limit scheduling to work hours	Std	
128	Provides ability to re-schedule service orders individually and en masse	Std	
129	Emergency orders are placed in the front of any queues or batches or are sent immediately to dispatch station	Std	
130	Provides rules based workload balancing of orders based on type, crew, date, workload, etc.	Std	
131	Provides ability to view and schedule appointments through mobile workforce and/or calendar application	Std	
Routing/Grouping/Printing			
132	Orders are automatically routed to the appropriate field office or dispatch workstation; user defined flexible routing and sequencing of orders based on type, area, crew, date, location and priority	Std	
133	On-line Provides ability to re-route order from one field office or dispatch workstation to another	Std	
134	Group service orders for efficient processing by technician, crew, type, area, date, priority	Std	
135	Provides ability to print service orders to different printers based on type, technician, crew and area	Std	
136	Service order print format can be user defined and customized	Std	
137	Tracks how many times an order has been reprinted and marks duplicate printed service order clearly by watermark or other means	Std	
138	Provides ability to print on a single page 8 1/2 x 11	Std	
139	Emergency orders are clearly marked as such on the order	Std	
140	Completion of service orders can create tasks for other staff to perform follow up activities based on defined workflow with notifications when tasks are completed (e.g. high bill complaints, theft/tampering)	Std	
141	Notification of completed service orders can be automated and routed to the appropriate staff	Std	
142	Allows only certain users to have permissions to override service orders	Std	
Canceling			
143	Allow orders to be cancelled, retaining the order and who and why it was cancelled	Std	
144	Non Payment Shut-off orders are automatically cancelled real-time if paid before executing, based on status of order (e.g., if 'enroute' may not be cancelled depending on customer requirements)	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
145	Non Payment Shut-off orders are automatically cancelled real-time if paid and account balancing remaining is < $x.xx (variable)	Std	
146	Provides ability to define rules and notifications to cancel non-payment Shut-off orders	Std	
147	Provides ability to create alerts when service orders are cancelled	Std	
148	Cancelling a linked service order will notify the user to take appropriate action to the other service orders	Std	
Closing			
149	Completion and closure of a service order can be two separate activities allowing for review by a supervisor to close a completed service order based on service order type	Std	
150	All orders can be closed on a single screen pane without changing tabs or views	Std	
151	Orders can be accessed and completed on screens by order number, type, date, or crew, premise number, service address, meter number and parcel number (not a report)	Std	
152	Specific fields can be designated as required to close a given service order	Std	
153	Completion of service order will automatically update status to closed based on service order type definition	Std	
154	Completion of order shall trigger a notification to the appropriate staff so they may take further action	Std	
155	Completion of an order can initiate another service order	Std	
156	Multiple service orders can be closed together in a batch process	Std	
157	Closing of backflow test service order triggers workflow that includes backflow letter and forms	Std	
158	Service order processing/completing is not stopped by billing activities	Std	
Service Order Inquiry			
	Allows on-line inquiry of service orders by:		
159	> Service order number	Std	
160	> Service order type	Std	
161	> Customer	Std	
162	> Crew	Std	
163	> Account	Std	
164	> Premise	Std	
165	> Meter or devices (Serial number, RFID, etc.)	Std	
166	> Technician	Std	
167	> Zone, area or other geographic designation	Std	
168	> CSR	Std	

Exhibit 3 - System Requirements Spreadsheet

Service Orders

Item	Requirement	Response	Vendor
169	> Date	Std	
170	Retains all service orders in system until purged by administrator	Std	
	Supports the following performance statistics:		
171	> Service orders completed by technician per day	Std	
172	> Service orders completed by crew per day	Std	
173	> Service orders completed by area per day	Std	
174	> Time to complete service orders by technician	Std	
175	> Time to complete service orders per crew	Std	
176	> Time to complete service orders by service order type	Std	
177	> Time to respond (emergency gas leaks)	Std	
178	> Other user defined criteria	Std	
179	Provides ability to view reasons why service is or is not turned on	Std	
180	Provides ability to identify duplicate service orders before transmitting to mobile system	Std	

Exhibit 3 - System Requirements Spreadsheet

Interfaces

Item	Requirement	Response	Vendor Comments
Internal City Interfaces			
General Ledger- Naviline			
1	Provides export from CIS of summary GL transactions including billed receivables and cash receipts	Std	
2	Provides report or method to verify the amounts in each batch that is transferred to the GL	Std	
3	Provides export from CIS of customer, account and credit amount to Central Square for the issuance of a credit refund	Std	
4	Provides the import to CIS of customer, account, check amount and check number to the customer account	Std	
Manual Meter Reads- ESRI			
5	Provides export from CIS that includes meter information, location, route, previous read and hi/low data to ESRI	Std	
	Provides the import to CIS of meter reading data	Std	
Meter Reads Sewer - Client files			
6	Povides import to CIS that includes usage information and problem/status codes to be billed by the CIS	Std	
Cashiering Payments-TBD			
7	Provides two-way real-time interface to City's cashiering system	Std	
8	Provides customer, account and balance information real-time from CIS to the cashiering system	Std	
9	Provides customer, account, payment amount, and payment detail information real-time from the cashiering system to CIS for payment processing in CIS	Std	
10	Provides report or method to verify payment amounts for batch, drawer, or daily reconciliation	Std	
Kiosks Payments			
11	Provides two-way interface to process payments from kiosks	Std	
Bill Print - TBD			
12	Provides export from CIS of bill print file (data file/pdf/ebill) to 3rd party for print, mailing and display on the portal	Std	
13	Ability to print OCR barcode on Bill	Std	
14	Provides ability for individual bill print images to be retrieved from the Enterprise File Server directly from within CIS	Std	

Exhibit 3 - System Requirements Spreadsheet

Interfaces

Item	Requirement	Response	Vendor
	Emails Originating from CIS- Outlook		
15	Provide export from CIS of generated emails including notification of errors or system/process failures	3rd Party	
	Authentication- Active Directory Windows Server 2022 or later		
16	Provides two-way real-time transfer of data for authentication of users against Active Directory	Std	
	GIS - ESRI 10.xx or later		
17	Provides two-way exchanges with GIS	Std	
18	Provides two-way real-time interface to perform address validation	Std	
19	Provides ability to have CIS data available as a layer in GIS	Std	
20	Provides ability to pull all addresses from GIS	Std	
21	Provides ability to pull only address changes from GIS	Std	
22	Provides ability to pull parcel numbers from GIS	Std	
23	Provides ability to display a spatial display of customer/premise information directly in CIS	Std	
24	Provides ability for CIS to assign a route to a location/premise automatically from GIS	Future	
25	Provides ability to pull Impervious Area for stormwater bill calculation from GIS into CIS	Std	
	Sanitation Routing - TBD		
26	Provides two-way interface to Routing Solution to import routing information	Std	
	Scanner - TBD		
27	Provides one-way interface to scanner module to image documents	Std	
	OCR Scanner		
28	Provides one-way interface to OCR scanner to extract information from bills.	Std	
	RFID Scanner		
29	Supports and is compatible with commonly used RFID tag types, including passive and active RFID tags operating on standard frequencies (e.g., HF, UHF)	Std	
30	Provides one-way interface to capture the unique identification information stored on a RFID tag and process it in real-time	Std	
31	**Electronic Document Management System (EDMS) - Naviline**		
32	Provides two-way interface to store and retrieve documents linked to customers, accounts, service orders, etc., in CIS	Std	

Exhibit 3 - System Requirements Spreadsheet

Interfaces

Item	Requirement	Response	Vendor
	Landfill - Scale Works		
33	Provides two-way real-time interface with customer accounts information including balance of sanitation services and weights of loads for billing	Std	
	Barcode Scanner		
34	Provides import to CIS of device idenitification to allow for update of location and status with CIS	Std	
	Water Meter Inventory Management		
35	Provides import to CIS of several manufacturers to automatically update inventory of water meters	Std	
	ERT Inventory Management		
36	Provides import to CIS of several manufacturers to automatically update inventory of ERTs	Std	
37	**Customer Self Service Portal**		
38	Provides two-way real-time exchange of customer account information	Std	
39	Provides ability of CIS to provide current data for customer's bill, billing and payment history, and account information	Std	
40	Provides ability of CIS to receive and apply changes to customer's account information	Std	
41	Provides ability of CIS to receive and apply changes to customer's payment arrangement, autopay, budget billing and other payment scheduling methods	Std	
42	Provides ability of CIS to receive and apply changes to customer's paperless billing enrollment	Std	
	IVR- Selectron		
43	Provides two-way real-time exchange of customer, account, balance, payment information for inbound calls	Std	
44	Provides export from CIS of customer data for outbound calling	Std	
45	Provides import to CIS of customer entered account numbers to enable screen pop on CSR's screen	Std	
46	Provides ability to process IVR payments	Std	
	AMI - Harmony Allegro		
47	Provides two-way real-time exchange of customer and meter updates due to meter installations, exchanges, etc. to provision devices	Std	
	MDM - Harmony Encore		

Exhibit 3 - System Requirements Spreadsheet

Interfaces

Item	Requirement	Response	Vendor
48	Provides a two-way interface to receive readings, leak indicators, problem/status codes etc and also to request on demand reading	Std	
Workforce and Asset management - OpenGov Asset Management			
49	Provides two-way real-time transfer of work orders between CIS and Cartegraph with data relevant to their completion (ex. Customer, type of work, priority, comments, etc.) and exhange of statuses until completion or final status.	Std	
50	Provides an online view of customer information through a link in Cartegraph with relevant information such as name, contact information (if available), services, meter information, usage history, billing history, payment history, etc.	Std	
51	Provides the ability to create customer contacts in CIS based on premise based orders created in Cartegraph	Std	
52	Provides installed meter information synchronization between CIS and Cartegraph	Std	
53	Provides two-way real-time exchange of meter and devices inventory	Std	
54	Provides real-time integration to access availability in Cartegraph to schedule service orders related to customers requests	Std	
Backflow - Tokay			
55	Provides two-way interface to set up a device, inspect and maintain a backflow device and associated information (e.g. name, address, phone etc.); identify and work exceptions.	Std	Hansen Inventory Test could/should replace Tokay
Lockbox			
56	Provides import to CIS of customer and account information and payment amount to process customer payments	Std	
ACH			
57	Provides two-way interface of customer ACH information for ACH prenote validation	Std	
58	Provides export from CIS of customer ACH information for ACH payment initiation	Std	
Liens - MR			
59	Provides two-way exchange of customer information regarding liens	Std	
Permits - Community Development			
60	Provides two-way interface sending permitting and fee status to CIS	Std	

External System Interfaces

Exhibit 3 - System Requirements Spreadsheet

Interfaces

Item	Requirement	Response	Vendor
	Online Payments - Payment Processor		
61	Provides a two-way real-time interface for customer, account, amount due and payment information to process payments from remote payment vendor (credit card and E-checks)	Std	
	Credit card payments - Elavon		
62	Provides a two-way real-time interface for customer, account, amount due and payment information to process payments from remote payment vendor	Std	
	Credit Checks- TBD		
63	Provides two-way real-time exchange of customer information to verify identity	Std	
	Mailing address verification- Melissa		
64	Provides two-way, real-time exchange of mailing address information for verification and conformance with USPS standards	Std	
	Credit card payments - Autopay payment processor		
65	Provides a two-way file interface to process autopay	Std	
66	Provides an import file interface to process payments	Std	
	Collection Agency		
67	A two-way interface with outside collection agencies to send customer account information and payment information for final overdue customers.	Std	
	Online Banking - Metavante		
68	Provides an import file interface to process payments	Std	

Exhibit 3 - System Requirements Spreadsheet

Business Intelligence (BI) & Reporting

Item	Requirement	Response	Vendor Comments
	General Specifications		
	Business Intelligence		
1	All BI tools share the same query optimization and generation engine	Std	
2	The BI function provides single engine for formatting and rendering reports and dashboards for consistency and efficiency and ease of training	Std	
3	The BI application provides the ability to generate, schedule output and reports by authorized users.	Std	
4	System shall incorporate and utilize existing Microsoft Power BI/SSRS capabilities	Enhance	
5	Provides an API or standard integration tool for connections to other applications including but not limited to ESRI	Std	
6	Provides mechanisms to identify and report invalid data	Std	
7	Supports object reuse and propagation	Std	
8	Provides drag and drop capabilities for IT resources to develop queries, objects, etc.	Std	
9	Provides ability for BI to import third party data (e.g. fleet)	Std	
10	Provides ability to build cubes	Std	
11	Provides user-friendly screens and a presentation layer which hides the complexity of underlying data sources	Std	
12	Provides standard data models for COTS applications such as CRM, CIS, Finance, HR, etc.	Std	
13	All BI tools shall share the same query optimization and generation engine	Std	
14	Provides ability to create letters through mail-merge	Std	
15	Provides single sign-on capabilities at the individual user level	Std	
16	Provides a mobile presentation/application layer. Please provide a list of devices/operating systems supported in the Vendor comment column	Std	Responsive design through Tibco and applicable to all modern browsers and OS
17	The mobile application shall provide the same security as the desktop application	Std	

Exhibit 3 - System Requirements Spreadsheet

Reporting

Canned Reports within CIS

18	System shall provide in-house reporting capability and pre-programmed reports made accessible within CIS dashboard or internal web page	Std
19	Provides ability to sort and filter live reports, with the ability to search by several user-defined criteria	Std
	System shall incorporate all existing reports listed below:	
20	Ability to pull consumption by, but not limited to, Location ID, Address, service, rate class, meter reading, meter reading date (by year, quarter, month or day), subdivision (general location code) and region (subcode).	Std
21	Delinquent reports including debt aging, write-offs, etc.	Std
22	Report of all comments/notes run by type and date parameter	Std
23	Devices inventory	Std
24	Customer accounts by type of accounts, meters and other user defined parameters	Std
25	Provides automatically the most current data aggregates and summary tables	Std
26	Provides ability to manage development and implementation stages including testing in test environment and promoting to production	Std
27	Allows users to modify their view of a report (ex. sort, filter, hide, move columns) without affecting the standardized view when other users access report	Std
28	Includes role based filtering where data is automatically filtered to a user's division, section, group, or individual and users can only see the data for which they are authorized	Std
29	Sales Tax report by county, account type, adjustments, tax exemptions, and other user-defined parameters	Std
30	Cash flow statement report with internal vs user payments by service	Std
31	Provides top 10 or key customers report by usage and dollar amount	Std
32	All reports and queries can be exported to excel	Std
33	Queries and reporting parameters can be saved for future use	Std
34	Provides the abitility to group and summarize reports	Std
35	Provides ability for user to modify canned reports	Std

Exhibit 3 - System Requirements Spreadsheet

Infrastructure and Technology

Item	Requirement	Response	Vendor Comments
General Specifications –			
1	It is required that system shall be cloud-based/hosted	Std	
2	Application shall not require a VPN to access. Application is mobile-friendly, support hybrid work	Std	
3	Provide application modules that are fully integrated with one another to avoid redundant data entry	Std	
4	Provides consistent look and feel across all modules	Std	
5	Provides optimal use in accordance with best practices and standard behaviors (e.g. mobile accessibility, responsive design, sortable lists, single or multi-select lists, click through functionality where appropriate, persisted search results, multi-tab support, etc.) and follows GUI industry standards	Std	
6	System shall meet Federal ADA regulations including all web sites, portals and mobile. Extra ADA capabilities to CA and FL standards preferred.	Enhance	
7	The system shall comply with W3C Web Content Accessibility Guidelines.	Std	
8	The system shall comply with Section 508 Requirements regarding accessibility.	Std	
9	The system shall comply with the State of Tennessee and City of Kingsport policies regarding accessibility.	Std	
10	Provides context sensitive online help available throughout as well as a comprehensive user guide that is updated as new or changed features and functionality are released	Std	
11	Provides ability to configure inclusion of Knowledge-base articles, FAQs and other repository documents to be included in the key-word search and returned in search results	Std	
12	Allows Help information to be augmented by the City for specific additional help information - this information is retained during upgrade	Std	
13	Provides Help feature linking to the vendor's web site for additional help	Std	
14	Provides support site containing complete and up-to-date manuals for all system modules and functionalities; the manuals shall be available for all available versions of the software	Std	
15	Provides a user-friendly, read-only data dictionary (for non-technical users) for reporting	Std	

Exhibit 3 - System Requirements Spreadsheet

16	Provides the ability to hover over fields an view data dictionary description, where applicable	Std	
17	Provides meaningful or instructional error messaging throughout solution and across all access channels when user is not adhering to requirements, or when action would violate data integrity	Std	
18	Provides detailed user-level error messages in a consistent format across all system modules. Error messages shall be customizable and maintained during subsequent upgrades	Std	
19	Provides for keyboard-only fast data entry (mouse action not required)	Std	
20	Where feasible, allows users to "undo" an action, as a usability practice.	Std	
21	Provides ability to make any field a drop down or search box with no free form entry allowed	Std	
22	Provides field level edit checks for transactions during data entry and provide immediate user feedback, including error messages and possible corrective actions (e.g. warnings when entering existing address, etc.)	Std	
23	System shall auto-populate fields whenever feasible, for ease of use such as dates, user names, notes etc.	Std	
24	Allows for user defined validations on fields	Std	
	Notes/Comments fields are available on the following levels:		
25	> Accounts	Std	
26	> Customer	Std	
27	> Premise	Std	
28	> Device	Std	
29	> Service	Std	
30	> Work Order/Service Request	Std	
	Notes/Comments get automatically updated with the following attributes:		
31	> User ID/Name of user making note/comment	Std	
32	> Date	Std	
33	> Time	Std	
	Notes/Comments can be sorted by:		
34	> User ID/Name of user making note/comment	Std	
35	> Date	Std	
36	Allows multiple comments to be created on a service, customer, etc. - notes or comments are created, stored, and retrieved as individual records, with sequence of creation preserved; users do not have to place all comments in a single record	Std	
37	Provides ability for a user to search on notes/comments	Std	
38	Provides ability for a user to print out notes/comments from the system	Enhance	
39	Provides a method for attaching electronic files to accounts, customers and premises	Std	

Exhibit 3 - System Requirements Spreadsheet

40	Allows action items or ticklers to pre-set tasks for future action	Std	
41	Provides built-in calendar allowing adjustments in processing and transaction dates for holidays, weekends, etc. Calendar shall be editable	Std	
42	Lists all records included in purge	Std	
43	Provides ability to validate the integrity of the database before and after a purge	Std	
44	Provides ability to selectively archive system data based on a user-defined number of years or other user-defined criteria - the archived data shall be accessible via another medium	Std	
45	Provides ability to search archived data	Enhance	
46	Provides comphrensive technical systems documentation and technical manuals designed for IT personnel	Std	
	Provides any required support software, including:		
47	> Application development tool kit	Std	
48	> Utilities and tools to monitor resource utilization	Std	
49	> Web development tool kit, including APIs	Std	
50	> Tool kit manuals	Std	
51	> Report generation scripts	Std	
52	> Audit and system logging	Std	
53	Provides clear documentation of batch processing jobs, dependencies and timing	Std	
54	Provides notifications and alerting for batch process run times and aborted uploads	Std	
55	Provides alerts and recovery options when any interface fails.	Std	
56	Provides alerts and recovery options when scheduler fails.	Std	
57	Provides multiple language options (English and Spanish at a minimum) for auto-generated bills, letters, notifications and notices systemwide or for specific customer/groups, based on customer preferences	Future	
58	Provides support for translation of content; either through an internal facility, or by interfacing with an open-source solution (e.g., Google Translate.)	Std	
59	Provides ability to utlize technologies such as heat mapping and analytics to help identify where usability could be improved	Std	
60	Uses industry standard formats whenever possible on all interfaces and utilizes banking industry standard file formats	Std	
61	Provides suspense log for rejected or unposted transactions. Allows users to correct transactions directly from suspense log	Std	
62	Provides ability to produce audit trail for configuration based changes (e.g. changes to requests configurations, workflows, user groups or roles and permissions, group membership, etc.)	Std	
63	Each record within the system shall contain a date/time stamp and username reflecting the last modification	Std	

Exhibit 3 - System Requirements Spreadsheet

64	Provides well defined, all inclusive upgrade processes for future software releases	Std	
65	Support all modifications made to the system during the installation process in all future software upgrades as a part of base system support	Std	
66	Software enhancements provided to other customers shall be made available to the City at no charge as part of normal upgrade process. The City shall have the option to enable or disable these new features and abilities	Std	
67	Software enhancements requested by the City of Kingsport must be included as part of the base system to be delivered in all future releases.	Enhance	
68	Development licenses for all system utilities and tools shall be provided, and shall become the property of the City upon system acceptance	Enhance	
69	The system design shall allow the system to run with little or no supervision with system administrator tools that are intuitive and easy to use; the recommended staffing for system administration must be provided in the appropriate section\ of proposal response	Std	
70	Provides e-discovery for litigation and FOIA requests.	Std	
Application Architecture (Technical)			
71	Provides user access to all screens, reports and transactions through a web interface based on assigned roles/groups	Std	
72	Application must be responsible design and capable to adapt to multiple device size	Std	
73	Allows easy deployment to desktops - either web based or provide deployment tools to push or pull software to the desktop	Std	
74	Allows easy deployment to mobile devices through a centralized online application (e.g. Apple Store, Google Play)	Std	
75	All of the system's desktop client applications shall be "thin client" applications rather than "thick or fat client" applications, meaning that no or minimal client software on the desktop will be required for their operation.	Std	
76	Provides customizable user interfaces managed by the user	Std	
77	Provides ability to share user interface customizations with other users or group of users	Std	
	Provides support for inter process communication including, but not limited to, the following:		
78	> Importing and exporting of standard desktop office application files compatible with Microsoft Office versions currently supported by Microsoft	Std	
79	> Web services	Std	
80	> Software Development Kit (SDK)	Std	
81	> Database API (stored procedures / functions)	Std	
82	Includes application and system configuration tables accessible by all modules	Std	
83	Supports mass changes to definable groupings of transactions	Std	

Exhibit 3 - System Requirements Spreadsheet

84	Supports effective dating for transactions and table updates, including both future and retroactive changes	Std	
85	Provides ability to drill down from a transaction view to the respective and supporting source record view irrespective of the module containing information	Std	
86	Provides ability to maintain a minimum of four operating environments for development, testing, training and production	Std	
87	Data in all operating environments shall be refreshed each time the production environment is refreshed	Std	
System Architecture (Technical)			
88	The system (client side) shall provide the ability to utilize smartphones or tablets as a mobile client (works with Windows, Android, and IOS Operating Systems, at a minimum, and shall be compatible with current versions and at least one version back)	Std	
89	Provides ability to utilize industry standard PC desktops and laptops; and work with a variety of portable devices - specify minimum, recommended screen configurations and graphics capabilities	Std	
90	Supports long-term data maintenance processes including robust data backup and recovery capabilities, storage and general up-keep of data	Std	
91	Provides ability to store, search, retrieve and link source document and image files from enterprise document management system	Std	
92	Provides ability to support a web version using current browser environments; proposals must describe how much functionality is provided in the web version, and indicate required browser add-ins and versions (e.g. Java / JDK / JRE, .NET, ActiveX, etc.). Note: language can not be version dependent	Std	
93	Provides ability to support all current, accepted industry web browsers; identify all browsers and versions supported in the appropriate section of proposal response (cannot be browser version dependent)	Std	
94	The system must be device brand and OS (Operating System) agnostic	Std	
Configuration			
95	Provides resources to configure all operating environments during implementation and ongoing operations	Std	
	Provides schematic and capacities for systems configuration:		
96	Provides system configuration ability, to ensure hot fail-over and continued operations should one element of hardware fail, load balancing capabilities	Std	
97	Provides the recommended configuration for network elements, including bandwidth requirements	Std	
98	Provides the recommended configuration for security (e.g. Firewall, DMZ (for mobile app, and Software)	Std	

Exhibit 3 - System Requirements Spreadsheet

99	Provides the recommended configuration for storage (e.g. configuration, redundancy) and supported technologies (e.g. SAN vs. NAS, FC vs. iSCSI connectivity, etc.)	Std	
	System Administration & Customizations (Technical)		
100	Provides ability to tailor and configure functions, workflows, screens, outputs, codes and other normal processing items without invalidating the support agreements	Std	
	Provide user-defined:		
101	> Exits	Std	
102	> Tables	Std	
103	> Fields	Std	
104	> Screens	Std	
105	> Reports	Std	
106	> Forms	Std	
107	> Hot keys	Std	
108	> Menus	Std	
109	> Business rules and workflows	Std	
	Include an administrative function to set notification and problem logging parameters and communicate those to the following:		
110	> Cell/smart phones	Std	
111	> E-mail addresses	Std	
112	The administration module shall be executable from any workstation connected to the network	Std	
	Database Management System (Technical)		
113	Offeror shall provide database performance monitoring and tuning, including but not limited to table & file maintenance, and query processing	Std	
114	Provides for simultaneous access to data by concurrent users	Std	
115	Provides ability to lock database records at a row and record level	Std	
116	Provides data modeling, data definition and data dictionary components	Std	
117	Provides standard structured query language (SQL) capabilities for database queries	Std	
118	Provides ability to set up log event triggers to automatically notify administrator when a user defined database condition or set maximum/minimums are exceeded	Std	
119	Require individuals to utilize uniquely identifiable login accounts for any interaction with the database	Std	
120	Database fields shall default to null, unless a user-defined default value is present	Std	
121	System shall utilize appropriate database rules and constraints to enforce and maintain referential integrity	Std	

Exhibit 3 - System Requirements Spreadsheet

122	Preserves data contents - if a record was ever valid, it cannot be completely deleted from the database	Std	
123	Provides ability to mark a record as obselete	Std	
124	Logs each edit transaction with date/time, account ID, old value, and new value - this shall be a permanent log, to support detailed audit of database contents; archive log and new value limited to user selected fields (excluding batch processes)	Std	
125	Provide user administration tools to support maintenance of user access and pick-list source tables without requiring specialist skills such as a DBA	Std	
126	Provides documented best practices including but not limited to optimum database configuration and client maintenance	Std	
127	*Technical database features shall include but not be limited to:*		
128	> On-line backups	Std	
129	> Transaction control to include rollback and commit functionality	Std	
130	> Restore and roll forward to point of failure functionality	Std	
131	> Row level locking	Std	
132	> Unique and non-unique indexing	Std	
133	> Automatic enforcement of referential integrity	Std	
134	> ODBC Compliance	Std	
Security (Technical)			
135	Complies with all current government standards and web-based transaction encryption standards (ex. FedRAMP)	Std	
136	HTTPS shall be used for all web based interfaces.	Std	
137	The hosting solution shall provide data encryption on transfer – this implies that data is encrypted while in transit from the City network to the cloud provider.	Std	
138	The hosting solution shall provide data encryption at rest – this implies that data is encrypted on servers using encryption technologies such as 256 bit AES.	Std	
139	Complies with Personally Identifiable Information (PII) encryption requirements according to Tennessee State Law	Std	
140	Provides ability to flag data as sensitive and inaccessible by external integrations	Std	
141	Provides ability to enable rapid deployment of new users and administration of existing users within CIS and applications	Std	
142	Allows user roles, views and permissions to be easily adjusted for reskilling positions.	Std	
143	Provides ability for users to easily manage profile details, manage preferences, change or reset password, provide site or app feedback, etc.	Std	
	Controls access by level, which applies to online activities, batch processing, report writer or retrieval software and system utilities, at the following levels:		
144	> System	Std	

Exhibit 3 - System Requirements Spreadsheet

145	> Database	Std	
146	> Module	Std	
147	> Field	Std	
148	> Menu	Std	
149	> Inquiry	Std	
150	> Record	Std	
151	> Report	Std	
152	> Approval	Std	
153	> Transaction	Std	
154	> Individual	Std	
155	> Work Unit	Std	
156	> Group	Std	
157	> Organization	Std	
158	> Department	Std	
159	> User roles (supervisor, data entry, review only) across all functional areas	Std	
160	Provides ability to mirror another user's role and permissions for the purpose of providing user support. Limited by security role	Std	
161	Allow an administrator to add and modify user security information using online screens with immediate profile update	Std	
162	Records or captures information about each unauthorized access attempt such as: user id, workstation, date, time, transaction (menu, screen, file, object), attempted type of access (read, modify, etc.)	Std	
163	Provides immediate notification to the System Administrator via email/text of identified unauthorized access attempts by login	Enhance	
164	Allows an administrator to generate online inquiry and batch reports to review access profiles and types given to the users defined to the system	Std	
165	Records and maintain past security profiles (history of security access for an employee) when changes are made to an employees security profile	Std	
166	Records who changes security profiles and when changes are made (user name, date and time stamp)	Std	
167	Provides ability to group users into classes and to assign these classes rights that will be applied to each user in the group - when the user's explicit rights are in conflict with the rights granted by group membership, the user's settings prevail	Std	
168	Provides summarized and detailed reports on user access, usage and audit logs, etc.	Std	
169	The system shall not allow user input or API input to be used to gain unauthorized access to a system	Std	
170	Shall pass industry standard penetration test. Describe penetration test methodology in Comments	Std	Penetration testing is completed annually by an external / 3rd party vendor (Triskele labs)

Exhibit 3 - System Requirements Spreadsheet

171	Identifies and corrects security flaws in operating hot fixes; patches etc. patch distribution methods and support for these ongoing updates to end user systems	Std	
172	Provides ability to periodically audit user accesses to ensure that access remains both timely and appropriate.	Std	
173	Provides ability to limit access on who can create/update templates for letters	Std	
174	Provides user role-based security handled from the application	Std	
175	Allows an administrator to suspend a user ID from further use	Std	
176	Assigns application access rights across entire suite of applications at a single point of entry	Std	
177	Provides ability to query users by security level	Std	
178	All systems of the hosting services provider shall be continually monitored for intrusion, malware, viruses, etc.	Std	

Internal Users

179	Utilizes a single user sign-on for all modules. Assigns application access rights across entire suite of applications at a single point of entry	Std	
180	Application logon shall be automated by utilizing Active Directory	Std	
181	Provides database access within application	Std	
182	The system shall provide the option to not display or print passwords during user entry	Std	
183	Allows multiple logins from the same physical device	Std	

External Users

184	Allow an administrator to reset passwords for subsequent change by the user	Std	
185	Allows for single sign-on (SSO) for specified modules as determined by administrator	Std	
186	Allows and prompts users to periodically change their password	Std	
187	The system shall time out, or suspend users after a period of time of being idle (ex. 15 min), and require the user to re-enter their password before continuing	Std	
188	System shall require the use of passwords composed of letters, numbers and special characters as defined by the system administrator	Std	

Capacity and Performance (Technical)

189	Provides the City system administrator and team with view of system performance	Std	
190	Complete an average of 90% of all online update transactions in under 1 second over any 60-minute period, during peak usage	Std	
191	Completes an average of 99% of all online update transactions in under 5 seconds over any 60-minute period, during peak usage	Std	
192	Completes 100% of simple, single-screen online inquiry transactions in under 1 second, during peak usage	Std	

Exhibit 3 - System Requirements Spreadsheet

193	Provides ability to ensure system performance is not adversely impacted or degraded as application scales and number of users and requests increase year over year	Std	
194	Tracks system uptime and transaction response times in order to demonstrate operation within acceptable levels	Std	

Backup and Restore Capabilities (Technical)

195	Provides ability to validate data integrity after database and/or transaction log recovery following system failure	Std	
196	System shall be available on a 24/7 basis except for scheduled maintenance and emergency "fixes"	Std	
197	Provides Disaster Recovery plan (e.g. hurricane business tolerance)	Std	

Reporting (Technical)

198	Includes an industry-standard suite of reporting utilities for use by general users of the system	Std	
199	Utilizes an industry-standard reporting suite, such as SSRS, Power BI, Microsoft SQL Server Reporting Services, IBM Cognos	Std	
200	Provides a set of standard "canned" reports - provide a list available out-of-the-box reports in the section most relevant to the report, in addition to BI reporting	Std	
201	Generates charts and graphs based on report data within the system	Std	
202	Provides summary-level reports with dynamic drill-down, sorting, and filtering capabilities	Std	
	Generate reports or data extracts directly to the following formats:		
203	> HTML	Std	
204	> XML	Std	
205	> PDF (Adobe Acrobat)	Std	
206	> CSV	Std	
207	> MS Office (Word, Excel)	Std	
208	Provides ability to view previously generated reports by all users or by specific users	Std	
209	Allows scheduling reports to run automatically	Std	
210	Allows for reporting by exception	Std	
211	Allows print preview of all reports before printing and have print screen functionality	Std	
	Utilizes electronic spreadsheets to:		
212	> Download information from the application	Std	
213	> Upload information into the application	Std	
	Provides for the following types of custom report writing tools that will use the application established security:		
214	> User-friendly end-user report-writer	Std	

Exhibit 3 - System Requirements Spreadsheet

215	> Graphical report-writer	Std	
216	> Reporting from multiple databases	Std	
217	Allows system generated reports to be automatically emailed to predefined recipients. Emails shall contain links to location of reports rather than file attachments	Std	
218	Allows generated letters to cause other activities such as notes, email or tickler items	Std	
219	Provides real time reporting and inquiry	Std	
220	Allows customized reports that can extract information from several subsystems and produce them on the same report	Std	
221	Provides ability to have a separate reporting database	Std	
222	Provides ability to synchronize data from transaction/reporting database	Std	
223	Provides ability for system administrator to define the number of jobs that can executed at the same time	Std	
224	Provides ability for system administrator to purge jobs	Std	
225	Provides ability to print on specialized business forms	Std	
226	Provides ability to edit specialized business forms	Std	
227	Provides ability to drill down on on-line report/queries	Std	

Workflow (Technical)

228	Provide best practice workflow templates	Std	
229	Provides multiple approval paths based on item to be routed	Std	
230	Provides automated approval notification	Std	
231	Provides workflow tools that integrate with MS Exchange and MS 365 e-mail for automated notifications	Std	
232	Provides ability for a designated user to override particular workflow steps	Std	
233	Provides ability for the approver to see only items that need their approval	Std	
234	Provides ability for the secondary approver to see items needing approval when primary approver indicates he or she is unavailable (or system administrator indicates that approver is unavailable)	Std	
235	Provides ability to create custom workflows based on rules based tools	Std	
236	Provide an internal real-time message routing capability for broadcasting information to all or a selected portion of users	Std	
237	Provides ability to track documents submitted for approval and review with a time/date stamp	Std	
238	Allows for workflow management and approval hierarchies	Std	

Other

239	Provides ability to create custom fields	Std	
240	Provides ability to schedule batch processes for daily, weekly, monthly, etc. without ongoing intervention from administrator	Std	

Exhibit 3 - System Requirements Spreadsheet

241	Provides a reliable job scheduler, with audits/exceptions/notifications if jobs do not run as scheduled	Std	
242	Allows for parallel and sub process workflows	Std	
243	Provides ability to route to department/group and individual levels	Std	
244	Provides ability to have Integrated Credit Card Swipers	Std	
245	Identifies all 3rd party software and hardware requirements	Std	
246	Provides ability for administrative personnel to toggle features like web portal and turn components on and off	Std	
247	The system shall provide role-based security controls access to specific functions and data for users.	Std	
248	The system shall provide record ownership-based security controls access to specific functions for internal users	Std	
249	All systems should be managed through the standard of least privilege (NIST 800-53)	Std	
250	All City data must be processed, stored, transmitted and disposed of onshore (within the jurisdiction of the United States)	Std	