

**Schedule “D”  
Statement of Work**

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## II. Background & Objectives

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The City of Billings has used the CitySuite (Innoprise) system for community development for many years. The system does not currently meet the needs of the City of Billings community development department. CitySuite will continue to be used for its finance functionality. The new solution should be a modern and complete Community Development solution that includes the following:

- Permitting
- Projects
- Code Enforcement
- Licensing
- All modules integrated with GIS for land records.
- Intuitive Online Citizen Access portal where citizens can easily apply, inquire, schedule, and pay for services online.
- Robust ePlan review module with preferred Bluebeam integration.
- Mobility software
- Available to outside agencies for reviews
- Integrate with the City's current Financial System and Enterprise Content Management solution

After evaluation of responses to the City's RFP, CityView was selected to provide and implement the new Community Development solution. The goals of the new community development solution are stated by the City as:

- Function as a long-term solution
- Increase efficiency of City Staff
- Increase effectiveness of City Services
- Be user friendly for customers and staff
- Be easily configurable and dynamic as needs change
- Provide a positive user experience for customers
- Partner with an organization that provides responsive customer service to solve problems

### III. Scope

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The Project scope:

1. Install CityView Property Information, Permits and Inspections, Planning, Code Enforcement, Business Licensing, and Cashiering as well as CityView Portal (licensed for Property Information, Permits & Inspections, Planning, Business Licensing, and Code Enforcement), CityView Mobile (for Permits & Inspections and Code Enforcement) and CityView Electronic Plans Review (which requires licensing Bluebeam Revu (Not included in our proposal as the assumption is the City has sufficient licenses in place)).
2. Install CityView integrated extensions including CityView Esri ArcGIS Server mapping extension, CityView Supported EDMS Extension (Questys), CityView MS Word Add-in, CityView MS Outlook Add-In, CityView MS Exchange Extension, CityView Payment Processor (Invoice Cloud) Extension, and CityView Configuration Console. See Section **VI. Technical Environment** for supported versions of MS Outlook and MS Word.
3. Collect Customer-specific data through a series of remote data collection sessions for lookup table values, fees, letters, workflow-specific values (assigned to, required dates, responsible departments, resource groups, email triggers), reviews, inspections, submittal requirements, business types and classifications, renewal periods and processes, expiration dates and processes, violations and corrections codes, and other related values for Permits & Inspections, Planning, Code Enforcement, and Business Licensing. This data will be collected, providing the CityView Project Team relevant documentation, such as fee schedules and letter templates, and by the Customer's completion of the CityView workbook for each specific CityView solution.
4. Collect Customer-specific requirements through a series of onsite (5 days) data collection sessions for a total of up to five (5) custom workflows, or equivalently effort-intensive changes to the CityView Select workflows (equal to 60 hours) across the products licensed. The five (5) custom workflows include two (2) for Permits & Inspections, one (1) for Planning, one (1) Code Enforcement, and one (1) for Business Licensing.
5. Provide a hardware and software infrastructure questionnaire for completion by the Customer. Review questionnaire response and provide Infrastructure Assessment Report on any possible deficiencies in hardware and/or software infrastructure as far as suitability for optimal running of CityView is concerned.
6. Configure CityView Property Information, Permits & Inspections, Planning, Code Enforcement, Business Licensing, Cashiering, Portal, Mobile, and Electronic Plans Review using the data collected in CityView's web-based configuration workbook as well as other digital materials provided by CityView. This will include the following:
  - a. Lookup table data.
  - b. Custom data fields for specific data capture requirements. The assumption is a maximum of 20 custom fields per area of functionality (i.e. Property Information, Permits and Inspections, Planning, Business Licensing, and Code Enforcement Enforcement). Additional fields can be added through budget validation, change order, or by the Customer once the configured system is delivered.
  - c. One-time configuration of fees specific to the permit, project, case, and license types being tracked through the system.

- d. Refinements to the CityView Select workflows, including the assigned to, required dates, email notifications, responsible departments and resource groups. This task also includes connection or disconnection of existing sub-workflows based on the Customer's requirements.
  - e. Configuration of up to five (5) custom workflows two (2) for Permits & Inspections, one (1) for Planning), one (1) for Code Enforcement, one (1) for Business Licensing or equivalently effort-intensive changes (equal to 60 hours) to CityView Select workflows.
  - f. Adjustment of the existing CityView scheduled processes for license renewals and permit expirations. These include; LC Add Delinquency Fee, LC Business Late Fee (Interest), LC Business Late Fee (Penalty), LC Business License Renewal, LC Business License Renewal - Tax Exempt Businesses, LC Merge and generate renewal notices, Permit Expiration: Set Permit Status to Expired, Permit Application Check Invalid Licenses, Permit Expiration: Add Generate Expiration Warning Notice Activity, Permit Expiration: Add Generate Expiration Notice Activity, and Permit Expiration: Add Progress Inspection Activity
  - g. Configuration of up to twenty (20) letter templates for Permits & Inspections, twenty-five (25) letter templates for Planning, fifteen (15) letter templates for Code Enforcement, five (5) for Business Licensing, five (5) for engineering, and three (3) letter templates for Cashiering (73 total letters). The itemization of these numbers may be subject to change but will not exceed 73 letters.
  - h. Additional configuration (workflows, letters, etc.) as required or desired by the Customer and mutually agreed to through written change order. The City of Billings has included 100 hours for contingency should additional data collections sessions, workflows and/or UAT reviews be required. A written change order is required to use the contingency budget.
  - i. Spatial Queries - CityView accomplishes spatial queries using its business rules engine. Most spatial queries are simple to create and can even be added by your system administrator(s) post-go live! Until we know the particulars of your maps and your business requirements, we cannot know if there are any spatial queries that will require non-standard configuration or customizations; therefore, this agreement accounts for 6 spatial queries. Estimate will be confirmed during project scoping and can be increased through mutually agreed change order.
7. Capture Customer's relevant historical, electronic data as defined in the following table and convert this into CityView. **Costs are estimates to be confirmed upon review of the data.**

Type of Electronic Information	Requested Conversion Item	Source
Licensing	All Business Licenses, charges and receipts, and classification codes.	Harris ERP CitySuite
Code Enforcement and Inspections	All cases, case actions, case violation information, generic inspection information, case cash receipts information, user setup and code files	Harris ERP CitySuite
Permitting data	All building, engineering, and utility permits	Harris ERP

	with associated information including general permit information, application names, miscellaneous information, structure setup, application tracking, permit setup, cash receipts and charges, application fees, application documents, inspections results	CitySuite
Planning and Zoning	All project information, project/location cross reference; planning action information, key date, project letter, and meeting document information; zoning, allowable use, and project receipt information and code information.	Harris ERP CitySuite

*No other data sources are assumed to be involved. The City of Billings does have legacy utility permit data in an AS400 system that they may choose to convert and import into CityView. CityView will provide an estimate as part of the project, but a change order will be required for this work as it is outside the scope of the project.*

CityView will convert the data as it is in the source database. However, if there is data that does not match the format of the field (e.g. alpha characters in a numeric field), or if there is inconsistent information, CityView either will not convert that data or the inconsistencies will be converted as is. CityView will report any data anomalies found during the conversion process.

8. Configure the interface to Billings' Electronic Document Management System (Questys) using CityView's standard EDMS Integration Framework. Once the development work is completed, CityView will configure the integration framework for integration with the Customer's EDMS, for posting electronic documents from CityView to the Customer's EDMS and dynamically retrieving them from Customer's EDMS.
9. Develop property integration with the Billings' central parcel data using CityView's property integration tool. CityView will load Parcel, Address, Owner, Structures (buildings), Parent Parcels, Roads and Road Segments, Parks and Park Elements, Trails and Trail Landmarks, and Zoning as part of the property integration, subject to the availability of the data in Billings' data source.
10. Set up the export for exporting cash receipting information to Billings' General Ledger system (Harris ERP CitySuite) from CityView Cashiering. This is an estimate and will be finalized prior to Scope sign-off, once all the export requirements have been reviewed.
11. Implement user security settings according to customer completion of organizational role spreadsheets defining the out the box organizational roles inherent in the solutions.

12. Deliver pre-configured reports for Permits and Inspections, Planning, Code Enforcement, (Business) Licensing, and Cashiering including the following reports:

Permits & Inspections	Planning	Licensing	Code Enforcement
<ul style="list-style-type: none"> <li>✓Application Review Tickler</li> <li>✓Average Daily Inspections</li> <li>✓Building &amp; Safety Revenue Report</li> <li>✓Certificate of Occupancy Listing</li> <li>✓Deposits and Bonds Summary</li> <li>✓Escrow (By Revenue Account #)</li> <li>✓Fee Paid in Full</li> <li>✓Inspection Detail</li> <li>✓Inspection Outcome</li> <li>✓Inspection Schedule</li> <li>✓Inspections To Do</li> <li>✓Inspections by Inspector</li> <li>✓Outstanding Fees</li> <li>✓Permit Inspection Trend</li> <li>✓Permit Status Summary (By Contractor)</li> <li>✓Permit Status Summary (By Status)</li> <li>✓Permit Status Summary (By Type)</li> <li>✓Permit Time Spent</li> <li>✓Permit Turn-Around Detail Report</li> <li>✓Permit Value</li> <li>✓Permitting – Punch In-Out Report</li> <li>✓Public Works Permit Status Summary</li> <li>✓Review – Decision Date</li> <li>✓Review Turnaround Time</li> <li>✓Portal Permits Entered Today</li> </ul>	<ul style="list-style-type: none"> <li>✓Deposits and Bonds Summary</li> <li>✓Escrow (By Revenue Account #)</li> <li>✓Expired Projects</li> <li>✓Monthly Project Status Report (sorted by Date Entered)</li> <li>✓Monthly Project Status Report (sorted by Project Number)</li> <li>✓Outstanding Plan Reviews</li> <li>✓Plan Review Time</li> <li>✓Planner Projects</li> <li>✓Planning Activities</li> <li>✓Planning Application Details</li> <li>✓Planning Punch In-Out Report</li> <li>✓Project Applications</li> <li>✓Project Expirations</li> <li>✓Project Fees</li> <li>✓Review Turnaround Time</li> <li>✓Scheduled Hearings</li> <li>✓Submittals Report (Sorted by Planner)</li> <li>✓Portal Projects Entered Today</li> </ul>	<ul style="list-style-type: none"> <li>✓Business Status</li> <li>✓Deposits and Bonds Summary</li> <li>✓Did Not Report Gross Earnings</li> <li>✓Emergency Contacts</li> <li>✓Escrow (By Revenue Account #)</li> <li>✓Excise Tax</li> <li>✓Fees Paid in Full</li> <li>✓Inactive Business Licenses</li> <li>✓One Day Business Licenses</li> <li>✓Outstanding Fees</li> <li>✓Past Due Licenses</li> <li>✓Tax Exempt Businesses</li> <li>✓Total Amount Billed</li> <li>✓Portal Licenses Entered Today</li> </ul>	<ul style="list-style-type: none"> <li>✓Cases Follow-up</li> <li>✓Case Status</li> <li>✓Case Summary</li> <li>✓Compliance Report</li> <li>✓Deposits and Bonds Summary</li> <li>✓Escrow (By revenue Account#)</li> <li>✓Incident History</li> <li>✓Inspection Schedule</li> <li>✓Inspection To Do</li> <li>✓Officer Activity by Case</li> <li>✓Officer Activity by Inspection</li> <li>✓Portal Cases Entered Today</li> </ul> <ul style="list-style-type: none"> <li>✓Reports created with CityView Application Builder (ActiveReports)</li> <li>✓Reports created with CityView Reporter (based on Microsoft technology)</li> <li>✓Requires MS SSRS (SQL Server Reporting Services)</li> </ul>
Cashiering	Other		
<ul style="list-style-type: none"> <li>✓Daily Cash Out (By Fee Type)</li> <li>✓Daily Cash Out (By Payment Type)</li> <li>✓Daily Cash Out (By Payment Type) With Fee Types</li> <li>✓Daily Cash Out (By Receipt)</li> <li>✓Daily Cash Out (By Revenue Account Number)</li> <li>✓Daily Cash Out for Cashier (By Payment Type)</li> <li>✓General Cashiering Report</li> <li>✓Payment Detail</li> <li>✓Reversals</li> <li>✓Portal Payments Entered Today</li> </ul>	<ul style="list-style-type: none"> <li>✓Audit Report</li> <li>✓Distribution List Report</li> <li>✓Fee Maintenance</li> <li>✓Portal Contact Email Lookup</li> </ul>		

13. Perform the installations and upgrades of the environment (production and test) through the life of the project. This includes the provision of 3 installs:

- Initial Installation
- User Acceptance testing
- Go-Live delivery

All installs are completed remotely. The assumption is that Billings has provisioned for any infrastructure changes detailed in the Infrastructure Assessment report and that the infrastructure used for the Initial Installation will be unchanged throughout the life of the project. Should there be changes, additional costs may apply where environment management efforts are increased. Should additional installs be required, these will be mutually agreed through the change order process.

Each install includes installation of a clean CityView environment, including:

- Management Server
- Application Server
- Workspace Server
- CityView Mobile, Portal and/or Integration Server as licensed

Initial Installation does not include the configuration of Microsoft SQL Server Reporting Services (SSRS) reports, connection to ArcGIS Server, configuration of the Electronic Document Management systems integration framework and Payment Processor integrations, where included under contract. These configurations are performed during the installation for User Acceptance Testing.

All installations require CityView Technical Support to have direct access (VPN or RDP) to the virtual server(s) to perform this task within the allocated budget. CityView's Project Manager will request any necessary "network access" documents at the start of the project, so that these can be signed prior to the Initial Installation. If direct access cannot or will not be provided, the access method will be discussed with the project team and managed through the change order process.

CityView is not responsible for installing or configuring any other software or components, e.g. Network Security, IIS configurations, SSL Certificates, Server communication including external traffic related to Portal. Infrastructure support requested to assist with or troubleshoot issues in these areas may attract additional costs.

14. Conduct up to three (3) remote validation and review sessions, for each of Permits and Inspections, Planning, Code Enforcement, and Licensing (Business) with the appropriate subject matter experts ("SMEs"). Each session is two to three (2-3) hours. Any additional sessions required will be mutually agreed to, and a change order will be raised. Additional corrections and modifications will be captured and corrected from each session. Additional sessions are available at \$700 each but will require a change order from the contingency hours to be approved by the City of Billings.
15. Conduct thirty-three (33) days of user training consisting of (31) days onsite and (2) days of remote training. This will include:
  - a. Twenty-two (22) days of end user training including Mobile and Portal.
  - b. Six (6) days of advanced user training (onsite and remote) to include configuration (3 days onsite), CityView Reporter (2 days onsite), and CityView System Administrator Training (1 day remote).

- c. Five (5) days of onsite Go-Live Facilitation to ensure comfort with the new system.
16. Ongoing support and maintenance of the software under the CityView Software License and Support Agreement.

Exclusions:

1. Provision of hardware, databases and third-party software.
2. Setup and support of network infrastructure supporting CityView.
3. Quantities, of the following items, that are in excess of those defined in "Scope (Inclusions)", are specifically excluded, unless addressed by a change order:
  - Letter configuration
  - Custom data fields
  - Spatial queries
  - Training
  - Customizations and interfaces
  - Custom workflows
  - Custom reports
  - Batch/scheduled processes
4. Non-standard configuration – standard configuration would be what is provided in the "Inclusions" above and what comes preconfigured in the system. Examples of non-standard configuration would include: modifying record-level security from what is pre-defined; defining organizational role security criteria other than those defined in the out of the box organizational roles (e.g. read-only access to some sheets, read-write to others); creating batch processes other than those defined in the product for permit expirations and license renewals; creating business rules defining specific outcomes that are tied to specific users of the system only (e.g. message box reminding of a process that needs to be followed but where that message box is only invoked where a specific users is logged into the system). While these are not included in the Project's scope, the configuration tools are provided for Customer to undergo such configuration itself.
5. CityView provides the integration with third-party payment processing systems to accept online payments. CityView does not provide third-party payment processing systems but the integration of CityView with such processors, is included. CityView customers are required to obtain their own payment processor license through agreement with the selected vendor. An integration to Invoice Cloud is included.
6. Customizations and interfaces other than those specified above or agreed to through change order. Should any 3<sup>rd</sup> party interfaces/integrations require licensing or services costs from the 3<sup>rd</sup> party, such costs are the responsibility of the City.

Assumptions:

- Data conversion assumes a single source of data. This estimate will be confirmed upon review of the data.

- Fee schedules were not provided prior to development of the price estimate for this project. Therefore, CityView’s assumptions of the effort to configure fees are subject to review of the complete requirements. For example, if you have Impact Fee schedules or Development Charges, we will not have assumed that and those may result in additional costs. CityView is happy to review this with Customer prior to contract signing, to give a firm estimate of the effort to configure all fees.
- The software implementation is based on CityView’s understanding of the number of “responsible departments” managing the processes within each product. Budgeted effort is allotted to various aspects of the implementation based on this number. For example, if the project to implement CityView Permits & Inspections includes scope for building permits, encroachment permits and fire permits, and each of these is managed separately by a different responsible department, then the budget estimate is based on 3 responsible departments needing independent sessions for data collection, validation & refinement and end user training. If, however, all of those permit types were managed by the same people under one Customer Service Centre, then this would be classed as 1 responsible department and the budgeted effort for data collection, validation and refinement and end user training is lower.

CityView’s understanding of the Customer’s responsible departments is as follows:

- Permits and Inspections (3 departments – Building, Engineering & Fire Prevention), Planning (1 department), Business Licensing (1 department), and Code Enforcement (1 department).

## IV. Work Approach

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The implementation will involve five phases: Project Planning, Scheduling and Data Collection; Configuration; Review and Validation; User Acceptance Testing; End User Training and Go-live Support.

City of Billings sign off is required before initiating a new phase. This provides key milestones in the Project to review progress, confirm objectives, and detail the activities and timelines for the next phase. Sign off involves acceptance that all pertinent deliverables have been made and confirmation of the budget and timeline for the next phase.

### ***Phase 1: Project Planning, Scheduling and Data Collection***

#### **Project Kickoff**

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The CityView Project Manager will review all documentation with respect to the implementation in order to prepare the materials for the Project kickoff and conduct the official project kick-off.

CityView will prepare the Project Plan which will include a draft project schedule.

#### **Remote Infrastructure Review**

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CityView will analyze the Billings' existing infrastructure to identify any potential areas that may result in sub-optimal performance. CityView's Infrastructure Review Specialist will verify remote accessibility, available bandwidth and techstack compatibility and advise the City's network specialists of the hardware and software prerequisites required to optimize the performance of the Customer's system. CityView will conduct this review remotely, off-site.

Should CityView Workspace be required at remote Customer facilities (offsite facilities, not directly connected to LAN, i.e. where performance could be an issue), CityView latency/load testing will need to be done to check performance of CityView at these remote sites.

#### **Initial Installation**

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CityView will conduct a trial installation for the purposes of testing the network infrastructure for use of CityView, to provide training for the network administrators on its installation, and to provide an environment for testing integrations dependent on the Customer's other systems. The development environment hosted by CityView, however, will still be the principal environment for configuration, validation and refinement.

#### **Product Walkthroughs/Process Mapping**

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CityView will provide the City of Billings with facilitated access to online data collection workbooks, as well as guidelines on how to complete the workbooks. This is accompanied by walkthroughs/demonstrations of the pertinent CityView products to provide the City of Billings' SMEs with an understanding of the workings of each of the products and their data requirements for configuration.

The walkthroughs ensure the City of Billings' users:

1. Learn the basics of the activity-based workflows.
2. Learn how to complete the online workbooks and/or other digital materials provided by CityView.
3. Learn how to provide the data for Billings' fees, letters, lookup tables, and scheduled processes named above.
4. Understand the data mapping process.

5. Process Mapping sessions are also conducted and designed to impart the skills Billings' SMEs require to complete their homework assignments. Users are provided with an in depth knowledge of CityView table structures and the formats required to streamline the data collection process. Each session will be from two (2) to four (4) hours, depending on the product. Sessions will be held for each of CityView Permits and Inspections (two (2) sessions), Planning (two (2) sessions), Code Enforcement, and Business Licensing.

Data collection will involve remote and onsite services. Onsite time will be devoted to five (5) days for the collection of the specifics for up to five (5) custom workflows to be created as well as six (6) days for the definition of data conversion and interface requirements. CityView has also included two (2) days for the CityView Project Manager to be onsite. A total of thirteen (13) days of onsite time is accounted for.

This stage is also used to better understand the customization requirements.

The main deliverable at the end of the Data Collection phase is the "Scope Document." The Scope Document will reference, where applicable, documentation that needs to be included in the implementation, such as RFP functional requirements, the answer sheet from the online data collection workbooks, other digital materials that were provided by CityView and completed by the City of Billings, data mapping documents, and interface/customization design documents.

### **Budget Validation**

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Once all of the data is collected from the City of Billings, the CityView Project Manager (the "CityView PM") will review requirements in accordance with this Statement of Work and the other Contractual Services Agreement documents to identify anything that is not accounted for in the scope. The CityView PM will also validate any estimates made as part of this proposal, including:

1. Data conversion requirements.
2. List of customizations and interfaces

If budget validation reveals that any estimates provided were insufficient, the CityView PM will inform the City of Billings of such and prepare appropriate change order requests. The next steps will not commence until sign off on budget validation and data collection occurs. This protects both parties against the risk of unclear expectations.

## **Phase 2: Configuration**

### **Data Conversion**

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Data conversion will commence once both parties are comfortable with the output of the data mapping exercise. CityView's specialist will create the scripts that parse, derive, and translate the source data into the ideal format for CityView. To reduce the time and effort associated with this phase CityView requires that the Customer provide data in one of the following formats: SQL Server, .mdb, .dbf, or .txt. Documentation must accompany any databases provided in .txt format so that our data conversion specialists do not have to infer the format of the file is (particularly in the case of non-delimited .txt files.) The initial data conversion will run the scripts to provide a means for verification of correctness during the validation stage of the Project. CityView will complete a final iteration (using the same scripts) immediately prior to go-live.

### **Data Conversion Assumptions**

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Data migration services are priced based on the following general assumptions:

1. Data has been cleaned according to the suggested guidelines.
2. Both parties have reviewed and signed off data mapping before proceeding to data conversion.

3. CityView will perform one complete data load prior to validation testing, one complete refresh prior to End User Training and Go-live Support, and one complete refresh at go-live. CityView will make all other fixes using targeted scripts. CityView can perform additional complete refreshes if the parties mutually agreed through a written change order.
4. The City of Billings provides data in one of the required formats: SQL Server, .mdb, .dbf or .txt. Documentation must accompany any databases provided in .txt format so that our data conversion specialists do not have to infer the format of the file is (particularly in the case of non-delimited .txt files.)
5. CityView will complete the final iteration using the same scripts. Should changes occur that affect the scripts, a change order will be required prior to any delivery.

### Configuration

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CityView will configure the CityView products based on industry best practices and with the data collected and signed off from Phase 1: Data Collection. CityView will create a single development environment and the Implementation Specialist will lead the configuration of that environment. This will involve the following components:

1. **Letter Template Development** – CityView’s Word Add-in will be used to create up to 73 letter templates according to electronic samples provided by the City of Billings with data merge tags defined. Letter samples must be provided in MS Word format. The Customer is provided the letter generation tools for its SMEs to create additional letters to meet additional or future requirements.
2. **Fees, Valuation, Work Items, Classifications** - All the fees are configured in the City of Billings’ CityView environment. Fee configuration is a one-time load. Should the fee schedule provided to CityView be changed or updated prior to go live, and additional configuration is required, a change order will be required.
3. **Activities Workflow** – All the CityView Select workflows will be configured with the City of Billings specific requirements for assigned to, required dates, email notifications, responsible departments and resource groups. In addition, existing sub-workflows may be removed, or added to the main workflow, depending on Billings’ specific processes. Should the required changes to the CityView Select workflows be significant and go beyond the refinement activities mentioned above, additional costs may apply through mutually agreed change order. CityView will configure up to five (5) custom workflows or equivalently effort-intensive changes to the CityView Select workflows.
4. **Custom data fields** - Custom data fields to meet the City of Billings’ specific data capture needs will be defined for each pertinent table where they are required and configured accordingly, along with the business rules to apply these data fields where appropriate.
5. **Lookups** – All lookup data defined during Phase 1 Data Collection, is entered into the system.
6. **Security** – Users are assigned to the roles and given permissions that are pre-defined in the products, based on information collected during data collection. Should additional user-level and record level security be required other than as defined in the solution’s organizational roles, additional costs may apply.
7. **Batch Rules and Scheduled Processes** – the named CityView Select batch rules and scheduled processes will be refined according to the requirements for permit expiry and license renewal.

### Customizations

Customizations, both those in the scope of work and any agreed to as a result of data collection and change order will be undertaken at this point.

### Interfaces

Interfaces, both those in the scope of work and any agreed to as a result of data collection and change order will be undertaken at this point.

### Quality Assurance (QA)

CityView undertakes quality assurance activities throughout each of the above phases (Data Conversion, Configuration, Customization and Interfaces). All customizations and interfaces are tested by CityView's QA Team prior to the applicable software build being released to the City of Billings. The quality of the configuration and data conversion are reviewed by a peer review committee which includes the CityView Project Team, members of CityView's research and development staff and management, and occasionally the City of Billings' SMEs.

### **Phase 3: Review and Validation**

The CityView PM will work with the City to establish the Review and Validation Plan, i.e. to determine when certain review and validation sessions will be given and who should attend. The development environment will be hosted at CityView's US data centers (OrionV in Pittsburg).

### Review and Validation

CityView will undertake a series of three (3) remote review and validation sessions with Customer's SMEs, for each of Permits and Inspections, Code Enforcement, Planning, and Business Licensing, to work through the validation of the configuration based on the data collection materials and scope document.

These sessions will be led by CityView implementation specialists. Eventually, the SME's will be expected to lead some sessions for each product. By the final session the City of Billings' SMEs will have reviewed and validated the bulk of the configured system and be able to:

- Navigate the system through Billings-specific processes and workflow.
- Generate and test fees.
- View and validate look up tables.
- Generate and test letters and documents that have been configured.
- Use scenario-based examples to test and validate automated business rules

Review and Validation will be conducted against the development environment, hosted by CityView. During the Review and Validation sessions CityView will document any changes, corrections, or deficiencies for further action. A customer feedback mechanism is provided within the environment for immediate feedback and reporting of issues to our implementation specialists and developers as it is expected the City of Billings' SMEs will conduct additional reviews without the CityView Implementation Specialist present.

### In Scope Refinements

In scope corrections from the process of Review and Validation will be conducted. If out of scope issues are raised through Validation, these will be handled through approved change orders.

### **Phase 4: User Acceptance Testing**

### User Acceptance Testing

On completion of the third Review and Validation session, the City of Billings will have a period of three (3) weeks for final User Acceptance Testing on its own completely installed test system. The CityView Implementation Specialist will monitor Billings' feedback and continue to make any in scope corrections. Provided the acceptance criteria have been met, the City of Billings is asked to formally accept the delivered solution for go-live.

### **Phase 5: End User Training and Go-live Support**

#### **Final Environment**

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After the final environment receives City of Billings sign off, CityView will perform a data conversion to establish an environment that can be used for training purposes.

#### **User Training**

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CityView conducts on-site training for all of the front line and advanced users identified in the training plan.

#### **Final Conversion Run**

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Immediately prior to go-live, CityView will conduct the final data conversion for Go-Live.

#### **Go-live**

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During go-live, CityView will be onsite for five (5) days of onsite go-live facilitation where an implementation specialist will be available to help the users with questions as they arise, easing their concerns and complementing their training. It is recommended that the City of Billings consider having an additional CityView resource onsite to support the staff on CityView software during the first weeks after go-live. Budget for this is not included here. The CityView and the Billings' project teams will discuss this to determine the City of Billings' needs prior to scope sign-off.

During go-live facilitation the CityView Project Team will work with the City to record any known issues. The CityView Project Team is responsible for the resolution of these known issues. See Project Acceptance section IX for more information about post go live process.

The Pre- and Post-Implementation Support Plan is comprised of a strategy for transitioning to Support and then the Support and Maintenance Agreement itself. During the first six (6) weeks after go-live, the CityView Project Team will begin to familiarize and transition the Project to CityView's Technical Support Group. At the end of six (6) weeks the CityView PM will arrange a formal hand-off involving the City of Billings, the CityView PM and the CityView Technical Support Team formalizing the transition of any new defects, bugs and support issues to the Technical Support Team.

### **IV1 Communication plan**

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The CityView Communication Plan includes:

- A 1 hour bi-weekly, or 30 minute weekly, status meeting with the CityView Project Manager or designate as mutually agreed, through the life of the project.
- Communication with Implementation staff (IS) as provided for in the data collection and validation sessions, and reasonable engagement beyond these sessions to clarify information collected and answer questions. Requests for dedicated time, or recurring meetings involving IS staff, may incur extra costs.

## IV2 Training plan

The training program is designed to provide your end users with the ability to use CityView for their day to day activities and your Subject Matter Experts (SMEs) with the skills to maintain your solution. The table below details the training plan.

### Training Plan

Course	Objectives		
<b>CityView End User Training (onsite)</b>	<p>This course is designed to train the City of Billings' users on the business use in order to fulfill their daily work activities. The course provides specific instruction on how to navigate and complete tasks within CityView. It will cover tasks such as completing an application, adding contacts, attaching files, tracking activities and outcomes, applying and paying fees, producing correspondence, mapping basics, and running reports. Users are able to:</p> <ol style="list-style-type: none"> <li>1. Understand the key concepts that make up the business process.</li> <li>2. Be able to navigate and complete tasks relevant to day-to-day activities.</li> <li>3. Be able to walk through a business activity-based workflow.</li> </ol>		
	<table border="1"> <tr> <td><b>Duration: 20 days*</b></td> <td><b>Users: End Users as defined below</b></td> <td><b>Maximum#: 10/session</b></td> </tr> </table>	<b>Duration: 20 days*</b>	<b>Users: End Users as defined below</b>
<b>Duration: 20 days*</b>	<b>Users: End Users as defined below</b>	<b>Maximum#: 10/session</b>	
<b>Configuration &amp; Maintenance Training (onsite)</b>	<p>This course is focused on enabling users to configure, maintain and evolve their business process within the CityView solution. Concepts that will be covered include Letter Generation, maintaining your Activity Based Workflow, Fee Maintenance, Holiday Configuration and Maintaining Lookup values. Users will be able to:</p> <ol style="list-style-type: none"> <li>1. Create and modify Letters.</li> <li>2. Create and modify Fees.</li> <li>3. Improve and evolve the Activity Workflow.</li> <li>4. Keep your system current by updating Lookup tables.</li> </ol>		
	<table border="1"> <tr> <td><b>Duration: 3 days</b></td> <td><b>Users: Advanced</b></td> <td><b>Maximum#: 6</b></td> </tr> </table>	<b>Duration: 3 days</b>	<b>Users: Advanced</b>
<b>Duration: 3 days</b>	<b>Users: Advanced</b>	<b>Maximum#: 6</b>	
<b>CityView Reporter Training</b>	<p>CityView's fully integrated ad-hoc report designer provides a quick and intuitive way for non-technical subject matter experts to create their own reports. In this course, students will learn about creating detail reports and pivot reports, as well as how to get the most out of the out of the box reports that come with the CityView system. Additional topics may include: complex report writing, views, and on-form expressions</p>		
	<table border="1"> <tr> <td><b>Duration: 2 days</b></td> <td><b>Users: Advanced</b></td> <td><b>Maximum#: 4</b></td> </tr> </table>	<b>Duration: 2 days</b>	<b>Users: Advanced</b>
<b>Duration: 2 days</b>	<b>Users: Advanced</b>	<b>Maximum#: 4</b>	
<b>CityView System Administrator Training (remote)</b>	<p>This course is designed to provide administrators responsible for managing CityView with the general knowledge of how to install and upgrade versions of CityView, change user rights and manage security. The advanced course will go into additional detail on the architecture of the CityView platform as well as how to maintain the CityView Portal.</p>		

	<p>Course participants will walk through typical system maintenance and troubleshooting examples, which will teach them the tools, techniques and terminology applicable to CityView, enabling them to not only support the business users in their organization but also to communicate more effectively with CityView’s Technical Support team. They will be exposed to our best practices approach for Security Maintenance; and, they will learn the processes for installing and upgrading the CityView environments.</p> <p>Students will be instructed in the use of the appropriate aspects of CityView CityView Configuration Console, and they will gain an understanding of the architecture behind CityView. Additional topics that may be covered include: configuration of Microsoft Exchange, Web Server settings, LDAP settings, Mapping, and Document Management settings.</p>			
	<table border="1"> <tr> <td><b>Duration: 1 day</b></td> <td><b>Users: Advanced</b></td> <td><b>Maximum#: 4</b></td> </tr> </table>	<b>Duration: 1 day</b>	<b>Users: Advanced</b>	<b>Maximum#: 4</b>
<b>Duration: 1 day</b>	<b>Users: Advanced</b>	<b>Maximum#: 4</b>		
<b>CityView Mobile End User Training (onsite)</b>	<p>This training will focus on the highly intuitive CityView Mobile.</p>			
	<table border="1"> <tr> <td><b>Duration: 1 day</b></td> <td><b>Users: TBD</b></td> <td><b>Maximum#: 10</b></td> </tr> </table>	<b>Duration: 1 day</b>	<b>Users: TBD</b>	<b>Maximum#: 10</b>
<b>Duration: 1 day</b>	<b>Users: TBD</b>	<b>Maximum#: 10</b>		
<b>CityView Portal Instructional Training (remote)</b>	<p>This training will focus on the highly intuitive CityView citizen Portal, to provide a select group of City users with the knowledge of how to navigate Portal processes so that they can answer citizen questions on the use of Portal.</p>			
	<table border="1"> <tr> <td><b>Duration: 0.75 days</b></td> <td><b>Users: TBD</b></td> <td><b>Maximum#: 10</b></td> </tr> </table>	<b>Duration: 0.75 days</b>	<b>Users: TBD</b>	<b>Maximum#: 10</b>
<b>Duration: 0.75 days</b>	<b>Users: TBD</b>	<b>Maximum#: 10</b>		
<b>Go-live Facilitation Assistance (onsite)</b>	<p>Five days of go-live facilitation where an implementation specialist will be available to help the users with questions as they arise, easing their concerns and complementing their training (as described in the Work Approach above).</p>			
	<table border="1"> <tr> <td><b>Duration: 5 days</b></td> <td><b>Users: All</b></td> <td><b>Maximum#: N/A</b></td> </tr> </table>	<b>Duration: 5 days</b>	<b>Users: All</b>	<b>Maximum#: N/A</b>
<b>Duration: 5 days</b>	<b>Users: All</b>	<b>Maximum#: N/A</b>		
<b>Premium Online Learning – advanced training (optional)</b>	<p>CityView offers an online-only option for all advanced training. This allows up to 6 students to have access to online learning content instead of “live” sessions with a trainer. The advantages are: access to more content for a full year, which can also be renewed with annual maintenance to support your ongoing learning needs, staff turnover, etc. Speak to your “CityView PM” if you are interested in swapping the “live” training, included above, for Premium Online Learning. Note: live training does not include access to recorded sessions. CityView only provides recordings of training as part of Premium Online Learning.</p>			

Training is provided on Customer-provided hardware.

\* 20 days End user training divided as follows:

CityView Basics Training 10 x ½ day sessions (5 days total)

Permits and Inspections 4 x 1 ½ day sessions (6 days total)

Planning 1 x 1 ½ day session (1 ½ days total)

Code Enforcement 2 x 1 ½ day session (3 days total)

Business Licensing 1 x 1 ½ day session (1 ½ days total)

Cashiering 1 x ½ day session (½ Day total)

Electronic Plans Review 4 x ½ day sessions (2 days total)

### ***IV3 Matrix of Responsibilities and Work Products***

The following table provides a summary of the Project. Responsibility and the lead for each step in the Project are defined and the deliverables received by Customer are presented.

<b>Step</b>	<b>Responsibility</b>	<b>Lead</b>	<b>Deliverables</b>
Project Kickoff	CityView	CityView PM	Hosted Development Environment, Project Plan
Infrastructure Review	CityView	CityView Infrastructure Review Expert	Infrastructure Review Document
Initial Installation	Share	CityView PM	Client-site installed initial Environment
Data collection, including Data Mapping and customization/interfaces analysis	Share	CityView PM	Signed-off Scope Document, including Budget Validation
Configuration	CityView	CityView PM	Configured Development Environment, ready for Validation & Refinement
Data Conversion	CityView	CityView PM	Configured Development Environment, ready for Validation & Refinement
Customizations and Interfaces	CityView	CityView PM	Implemented functionality in Hosted Development Environment, ready for Validation & Refinement
Review and Validation Sessions	Share	CityView PM	Completed Validation sessions
Refinements based on Review and Validation sessions	CityView	CityView PM	Development Environment for Final Acceptance Testing
User Acceptance Testing	Billings	Billings PM	User acceptance of the fully delivered system based on test scripts
User Training (including advanced training)	Share	CityView Trainer	Completed training
Go-live	Share	CityView PM	Live production environment

### **IV4 Documentation**

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Documentation is available through CityView Connect, CityView's on-line content management system. This is the source for the most updated CityView information at any time. The City of Billings can search for a particular topic or browse through the menu items. The Product Training Guides will step the City through a full training session for a particular topic.

CityView Connect is accessible directly and within the CityView modules. By clicking the Help button, direct access is provided to the content in CityView Connect.

Documentation is targeted to three main groups: business users, system administrators and application developers. Documentation is provided at every level of training, focused on the enabling objectives of the training in question.

CityView Connect is the main source of documentation for Billings throughout implementation of the Project and beyond. With each CityView release, detailed release notes document the changes to the release both for new features, feature changes, and bug fixes. Any exceptions or changes for installation and upgrade are also noted.

CityView offers the following documentation:

- System technical documentation
- System end user's documentation
- On-line Help Desk documentation
- System/Architecture diagrams
- Scope Documentation including – signed-off data collection materials

## V. Post Implementation Support

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Detailed in Schedule C, CityView Service Level Agreement.

## VI. Technical Environment

Information is provided for reference in the following pages regarding recommended servers, database sizing considerations, third party software, and compliancy tables. This is followed by a diagram depicting a typical installation. For all the most recent specifications please refer to CityView Connect - <https://cityviewhelp.iharriscomputer.com/CityViewCMS/index.php/supported-technologies>

### Operating Systems\*

Interface	Supported OS Versions	Editions	Minimum Requirements
CityView Configuration Console	Windows 10	32 and 64 bit, Home, Pro and Enterprise Editions	.NET Framework 4.8 required - <a href="#">download link</a>
	Windows 8, 8.1	32-bit and 64-bit editions	.NET Framework 4.8 required - <a href="#">download link</a>
CityView Mobile*	iOS (iPhone, iPad, iPod)	4 or higher (tested to iOS 14.3)	CityView Mobile is a browser-based interface, so devices will require an internet connection and a web browser. Local storage must be enabled.  <b>Important:</b> TLS certificate required.  About Windows Surface devices: these devices will run CityView Mobile, but you will not be able to directly access the camera for photos or video. This is a Windows security issue and is not controlled by CityView.  <b>Optional Hardware:</b>  For areas with poor coverage, some customers have used <a href="#">vehicle cellular signal boosters</a> to enhance connectivity.  Though we (CityView) do not claim to support or endorse any one product, this unit has been recommended by our customers: <a href="#">weboost Drive 4G-M</a>
	Android	2.3 or higher	
	Windows Phone 7 or higher	7 or higher	

\*CityView Mobile is an optional add-on service to use CityView through a customized browser application. Each module is licensed for CityView Mobile separately. CityView Mobile is optimized for use in the field on a small screen; it is a supplement to, and not a substitute for a full version of CityView Workspace.

## Server Specifications

All applications require a Management and Application Server

Servers	Supported OS Versions	Minimum Requirements
<b>CityView Management Server</b>	Windows Server 2019	<ul style="list-style-type: none"> <li>• Required for all environments</li> <li>• Windows Server with 2GHz Xeon processor recommended</li> <li>• 8 Gigabytes (GB) of RAM or higher recommended</li> <li>• 300 megabytes (MB) of available hard disk space</li> <li>• URL Rewrite for IIS is required and included in the installation package. Users need to accept the installation.</li> </ul>
	Windows Server 2016	
	Windows Server 2012 R2	
	Windows Server 2012	
<b>CityView Application Server</b>	Windows Server 2019	<ul style="list-style-type: none"> <li>• Required for all environments</li> <li>• Windows Server with 2GHz Xeon processor recommended</li> <li>• 8 Gigabytes (GB) of RAM or higher recommended</li> <li>• 500 megabytes (MB) of available hard disk space</li> <li>• 64-bit</li> </ul>
	Windows Server 2016	
	Windows Server 2012 R2	
	Windows Server 2012	

Servers	Supported OS Versions	Minimum Requirements
<b>CityView Workspace Server</b>	Windows Server 2019	<ul style="list-style-type: none"> <li>Required for customers that purchase the CityView browser-based interface</li> </ul>
	Windows Server 2016	<ul style="list-style-type: none"> <li>2GHz 8 core Xeon or Opteron processor recommended</li> </ul>
	Windows Server 2012 R2	<ul style="list-style-type: none"> <li>32 Gigabytes (GB) of RAM or higher recommended</li> <li>10 Gigabytes (GB) of available hard disk space</li> <li>Note that an SSL/TSL certificate is required to run Workspace.</li> <li>Standard edition – WebSockets enabled</li> <li>URL Rewrite for IIS is required and included in the installation package. Users need to accept the installation.</li> </ul>
	Windows Server 2012	<ul style="list-style-type: none"> <li>Workspace requires a 64-bit Application Pool in IIS.</li> </ul>
<b>CityView Portal Server</b>	Windows Server 2019	<ul style="list-style-type: none"> <li>Required for customers that purchase CityView Portal, online public interface for any module.</li> <li>A separate CityView Portal license is required for each online module</li> </ul>
	Windows Server 2016	<ul style="list-style-type: none"> <li>Windows Server with 2GHz Xeon processor recommended</li> </ul>
	Windows Server 2012 R2	<ul style="list-style-type: none"> <li>16 Gigabytes (GB) of RAM or higher recommended</li> <li>4 Gigabytes (GB) of available hard disk space</li> <li>Note that an SSL/TSL certificate is required for CityView Portal/Mobile</li> </ul>
	Windows Server 2012	<ul style="list-style-type: none"> <li>CityView Portal requires a 64-bit Application Pool in IIS.</li> </ul>
<b>CityView Mobile Server</b>	Windows Server 2019	<ul style="list-style-type: none"> <li>Required for customers that purchase CityView Mobile interface for any module.</li> <li>A separate CityView Mobile license is required for each online module</li> </ul>
	Windows Server 2016	<ul style="list-style-type: none"> <li>Windows Server with 2GHz Xeon processor recommended</li> </ul>
	Windows Server 2012 R2	<ul style="list-style-type: none"> <li>16 Gigabytes (GB) of RAM or higher recommended</li> <li>10 Gigabytes (GB) of available hard disk space</li> <li>Note that an SSL/TSL certificate is required for CityView Portal/Mobile</li> </ul>
	Windows Server 2012	<ul style="list-style-type: none"> <li>CityView Mobile requires a 64-bit Application Pool in IIS.</li> </ul>

Servers	Supported OS Versions	Minimum Requirements
CityView Integration Server	Windows Server 2019	<ul style="list-style-type: none"> <li>• Required for Gmail integration</li> <li>• Required for any environment using CityView Public API</li> <li>• Windows Server with 2GHz Xeon processor recommended</li> <li>• 8 Gigabytes (GB) of RAM or higher recommended</li> <li>• 10 megabytes (MB) of available hard disk space</li> </ul>
	Windows Server 2016	
	Windows Server 2012 R2	
	Windows Server 2012	

\*When communicating with external sites such as ArcGIS Online and payment vendors, CityView will use the default security protocol configured in the OS. This could be TLS 1.1, 1.2 or 1.3. The version of TLS supported by the CityView Web Servers depends on the OS and IIS configuration.

### Data Sizing Projections

There are several services that are typical in our deployment strategy:

1. **SQL Server** – can be scaled to include failover clusters. Typical day-to-day operation of CityView will not tax the server as most queries will pull less than 10 records per table at a time. This service works directly with Management Server, Application Server and Portal server processes. Typical permit applications require 1MB of disk space.
2. **CityView Management Server** – this is a service that runs in IIS, typically processing login requests, and configuration settings for the software. The only time where the service impacts performance on a server is when a build of the application occurs, typically during maintenance periods. All services need to be able to communicate with this server.
3. **CityView Workspace Server** – this is a service that runs in IIS and provides the server side processing for the primary Workspace browser user interface most staff will use. This service needs sufficient hardware resources to handle the load. If performance is not ideal, it is certainly possible to have multiple servers deployed to handle load balance or latency concerns.
4. **CityView Application Server** – this service handles general server side application processing not handled by more specialized servers. This includes scheduled processes, letter generation and document access.
5. **CityView Mobile Server** – Mobile Server IIS service acts as a gateway to the software for field staff users, and directly queries SQL Server during operation. There is an extremely small footprint for the service, and small memory/CPU overhead. If performance is not ideal, it is certainly possible to have multiple mobile servers deployed to handle load balance or latency concerns.

6. **CityView Portal Server** – Portal Server IIS service acts as a gateway to the software for browser and mobile users, and directly queries SQL Server during operation. There is an extremely small footprint for the service, and small memory/CPU overhead. If performance is not ideal, it is certainly possible to have multiple portal servers deployed to handle load balance or latency concerns.
7. **Document Management/Content Management Server** – often handled by third party services, e.g. SharePoint, Laserfiche, TRIM, etc. This can also be defined as a Windows file share (SMB) where we typically recommend 5MB of space per permit for file storage (PDF, DOC, JPG).

## .NET Framework

Required for all servers and machines running CityView Configuration Console or Desktop.

Supported Versions	Notes
.NET Framework 4.8	Required

## Database Technologies

[Microsoft SQL Server](#) is required for all CityView clients.

Supported Versions	Editions	Recommended Hardware
SQL Server 2019	32-bit and 64-bit editions, Express and higher	<ul style="list-style-type: none"> <li>• Processor: 2+ GHz Dual Core processor (Intel Xeon or AMD Opteron)</li> <li>• Memory: 32 GB</li> <li>• Storage: RAID-5, 4 (3 + 1 Hot Spare) x 73GB 15K RPM Ultra 320 SCSI (or substitute SSDs for better performance)</li> <li>• Network Adapter: Gigabit Ethernet Adapter</li> <li>• Power Supply: Redundant Power Supplies</li> </ul>
SQL Server 2017		
SQL Server 2016		
SQL Server 2014		
SQL Server 2012*		

\*Official support ended in 2017. SQL Server 2012 extended support will end on July 12, 2022.

## Browsers\*

For CityView customers that purchase CityView Workspace. Note that servers for all CityView web-based interfaces require TLS certification and an HTTPS address.

Workspace		
Workspace has been designed to work with desktop browsers. Staff mobile users should be using the <a href="#">CityView Mobile</a> interface, which also supports disconnected mode (security certificate required).		
Supported Browsers	Required Settings	Notes
<b>Google Chrome*</b>  <b>Microsoft Edge*</b> Windows 10 required	Required for Workspace on all browsers: <ul style="list-style-type: none"> <li>JavaScript must be enabled</li> <li>Cookies must be enabled</li> <li>Ad Blockers must be disabled</li> <li>Pop-ups must be enabled (or not blocked)</li> </ul>	CityView Workspace (internal use) <b>does not</b> currently support browsers on mobile devices. Staff mobile users should be using the <a href="#">CityView Mobile</a> interface, which also supports disconnected mode.  <b>Important - Internet Explorer No Longer Supported in Workspace</b> - Microsoft has discontinued development of Internet Explorer and recommends Edge. Microsoft Edge is not available for Windows 7 or Windows 8.1. Customers still on those operating systems should use either Firefox or Chrome for the full CityView Workspace interface experience.
<b>Mozilla Firefox</b>		

\*Recommended browsers

Portal		
Portal has been designed to work with desktop and mobile browsers		
Supported Browsers	Version	Notes
Internet Explorer (deprecated)	11	Portal servers require a TLS certificate (https) and a 64-bit IIS Application Pool  *A bug in Safari and embedded browsers on MacOS 10.14 and all browsers on iOS 12 may cause issues with certain payment gateways. This has been fixed in current versions. Invoice Cloud, Paymentus, Heartland, MSB Nexus (with Hosted PayPage) are not affected.
Microsoft Edge	40 and up Windows 10 Mobile	
Google Chrome	Desktop (tested version 73) and Mobile	
Mozilla Firefox	Desktop (tested version 66) and Mobile	
Opera	Tested version 58	
Safari	9, 13 and up* MacOS, iOS, iPad	

Mobile		
Mobile has been designed to work with mobile browsers		
Supported Browsers	Version	Notes
Safari	10 or higher	CityView Mobile is highly compatible with many mobile browsers for phones or tablets.  Firefox and Chrome update automatically. As of publication, the current version is supported.  As of Firefox version 62 and Chrome version 67, these browsers no longer allow insecure websites to access the browser Application Cache. This is where the pages for disconnected mode are stored. Mobile Disconnected Mode will no longer run when using HTTP. Your browser will give a No Internet connection error. To be able to use disconnected mode, you need to host CityView Mobile using HTTPS.
Firefox	57 or higher	
Chrome	63 or higher	
Opera		

<b>Android</b>	Note that these browsers update automatically, so trying to retain a previous version is not a practical solution.
<b>Virtual Inspections</b> Contractors using their mobile phones for inspections will need to have one of the Twilio supported browsers: <a href="https://www.twilio.com/docs/video/javascript#supported-browsers">https://www.twilio.com/docs/video/javascript#supported-browsers</a>	

## Bluebeam Revu

For customers that purchase Electronic Plans Review. Bluebeam Revu is needed for document markup. It is not required to view flattened documents with the mark-up in place.

Supported Versions	Editions	CityView Interface	Notes
Revu 2021  Revu 20.1 & 20.2  Revu 2019.1.16, 2019.1.20, & Revu 20  Revu 2019  Revu 2018*	<ul style="list-style-type: none"> <li>• <b>Core &amp; Complete</b></li> <li>• <b>Revu eXtreme</b> all document comments and markups are flattened before the document is returned to the customer for corrections</li> <li>• <b>CAD &amp; Standard</b> versions can be used by users who will be marking up documents, but not be initiating or finalizing the markup process, or for Workspace users.</li> </ul>	Workspace	Bluebeam Revu is required for CityView Electronic Plans Review (EPR) functionality.  Bluebeam Revu can also be used to view, create or manipulate PDF documents, independently of CityView. <ul style="list-style-type: none"> <li>• Bluebeam Revu licenses are required</li> </ul> *For customers upgrading to version 2018: If you have a Bluebeam Open or Enterprise License, Bluebeam will validate your license every time you launch, prepare or flatten documents. It is normal to see a "License Seat Acquisition" message.

## Google Applications

Supported	Notes
Google Calendar integration	License required
G-Suite integration	License required
Gmail utilization	No license needed – Integration Server required

## Microsoft Exchange

For CityView customers that purchase Microsoft Exchange integration

Supported Versions	Notes
Office 365 Exchange	Supported with Web Services API
Exchange 2019	
Exchange 2016	
Exchange 2013	
Exchange 2010	

## Microsoft Outlook

For CityView customers that purchase the Microsoft Outlook integration Add-In

Supported Versions	Editions	Notes (VSTO deployment)
Office 365	Installed	Office 365 online (browser-based) versions are not supported.
Outlook 2019	32-bit and 64-bit	<b>IMPORTANT:</b> CityView Integration Server is now required. Office 365 online (browser-based) versions are not supported. "Click-to-Run" versions prior to version 2019 are not supported by CityView. <b>Note:</b> Because CityView currently uses Visual Studio Tools for the Outlook (VSTO) add-in, Centralized Deployment of Office add-ins is not supported. See <a href="https://docs.microsoft.com/en-us/microsoft-365/admin/manage/centralized-deployment-of-add-ins?view=o365-worldwide">https://docs.microsoft.com/en-us/microsoft-365/admin/manage/centralized-deployment-of-add-ins?view=o365-worldwide</a>
Outlook 2016		
Outlook 2013		
Outlook 2010		

## Microsoft Word

For CityView customers that purchase the Microsoft Word integration Add-In, the requirements differ for users who will generate the base letter templates and users that just need to make edits to letters before sending, after they have been generated by the template. Most users will just need the Letter Editing requirements.

Note that Office 2019 is supported on Windows 10 but isn't supported on Windows 7 or Windows 8.1.

## Letter Editing

Once a letter is generated from a template, the content of the letter can be edited via the Word Add-In. These are the supported versions for letter editing.

For Letter Editing (manifest deployment)		
Supported Versions	Editions	Notes
Office 365	Installed and online	See Word Add-in for Workspace for configuration information.
Word 2019	32-bit and 64-bit	"Click-To-Run" version is required for Word 2016 and supported for 2019
Word 2016		

## Template Editing

Users in the Letter Configuration organization role can customize letter templates used to generate letters/correspondence. These are the supported versions for template configuration.

For Template Letter Editing (VSTO deployment)		
Supported Versions	Editions	Notes
Office 365	Installed client only	Office 365 online (browser-based) versions are not supported.
Word 2019	32-bit and 64-bit	"Click-to-Run" versions prior to version 2019 are not supported by CityView.  <b>IMPORTANT:</b> Because CityView uses Visual Studio Tools for Office (VSTO) add-ins, Centralized Deployment of Office add-ins is not supported.  See <a href="https://docs.microsoft.com/en-us/microsoft-365/admin/manage/centralized-deployment-of-add-ins?view=o365-worldwide">https://docs.microsoft.com/en-us/microsoft-365/admin/manage/centralized-deployment-of-add-ins?view=o365-worldwide</a>
Word 2016		
Word 2013		
Word 2010		

## Mapping/GIS Technologies

For CityView customers that purchase the GIS/mapping integration (Esri only)

Supported Versions	Editions	Notes
ArcGIS Online		<ul style="list-style-type: none"> <li>Supported</li> <li>Required for CityView Mobile Route Planning</li> <li>Esri requirement: TLS 1.2 certificate required</li> </ul>
ArcGIS Server v11	<ul style="list-style-type: none"> <li>32-bit and 64-bit editions, Express and higher.</li> <li>Workgroup or Enterprise Capacity Level servers (Standard, Advanced).</li> <li>Server Basic version <b>not</b> supported.</li> </ul>	<ul style="list-style-type: none"> <li>TLS certificate required.</li> <li>ArcGIS Engine v9.3 and v9.2 ArcGIS Reader v9.3 and v9.2 - legacy support; no significant enhancements will be implemented.</li> </ul> <p>* <b>Feature Service Layers</b> required for editing maps through CityView.</p>
ArcGIS Server v10.9		
ArcGIS Server v10.8.1		
ArcGIS Server v10.7.1		
ArcGIS Enterprise v10.6		
ArcGIS Enterprise v10.5		
ArcGIS Server v10.4		
ArcGIS Server v10.3.1		
ArcGIS Server v10.2.2		

## Document Management Systems

Optional integration for CityView customers who are using one of the following document management systems. Additional license required to integrate with CityView. If no other integration is configured, CityView will use its native DMS.

System	Supported Versions	Notes
Laserfiche	<b>9, 10, and 11 (including all minor versions)</b>	<a href="https://www.microsoft.com/en-ca/download/details.aspx?id=48145">https://www.microsoft.com/en-ca/download/details.aspx?id=48145</a>  The Laserfiche libraries that CityView uses and ships with will work with an instance of Laserfiche 11 Server.
Microsoft SharePoint	<b>2016, 2013, 2010, SharePoint Online</b>	
OnBase	<b>OnBase Foundation Enhancement Pack 3 (EP3)</b>	Supports CityView/OnBase API

System	Supported Versions	Notes
Questys		
PaperVision	78, 79	
ImageNow (Perceptive Content)	6.7	
Alfresco	5.2	
FileHold	15.2.0	

## Payment Processing

CityView Portal supports optional integration with numerous Payment Processing systems (Payment Gateways). You must be licensed to implement this integration. \* Preferred gateway in Canada. \*\*Preferred gateway in U.S.

**Security Note: The PCI Data Security Standard requires that merchants use TLS1.2.**

Supported Gateways	Notes
Paymentus*	Supports eCheck/ACH payment if customer account has set this option with their payment vendor. Shopping cart supported conditionally.
Invoice Cloud**	Supports eCheck/ACH payment if customer account has set this option with their payment vendor. Shopping cart supported.
Heartland	
Acculynk	
PayPal's PayFlow Pro	Payflow Pro v4.3
iTransact	
Moneris (Hosted Pay Page)	
PayGOV	
Bambora (formerly Beanstream)	Shopping cart supported.
MSB Nexus	Web API "May 2017" version, MSB Nexus "Hosted Payment" Gateway method
BIS Online	
Authorize.Net	Supports eCheck/ACH payment if customer account has set this option with their payment vendor.

## SMS/Text Messaging

CityView customers with modules that are licensed for Mobile can use the following service to send text messages.

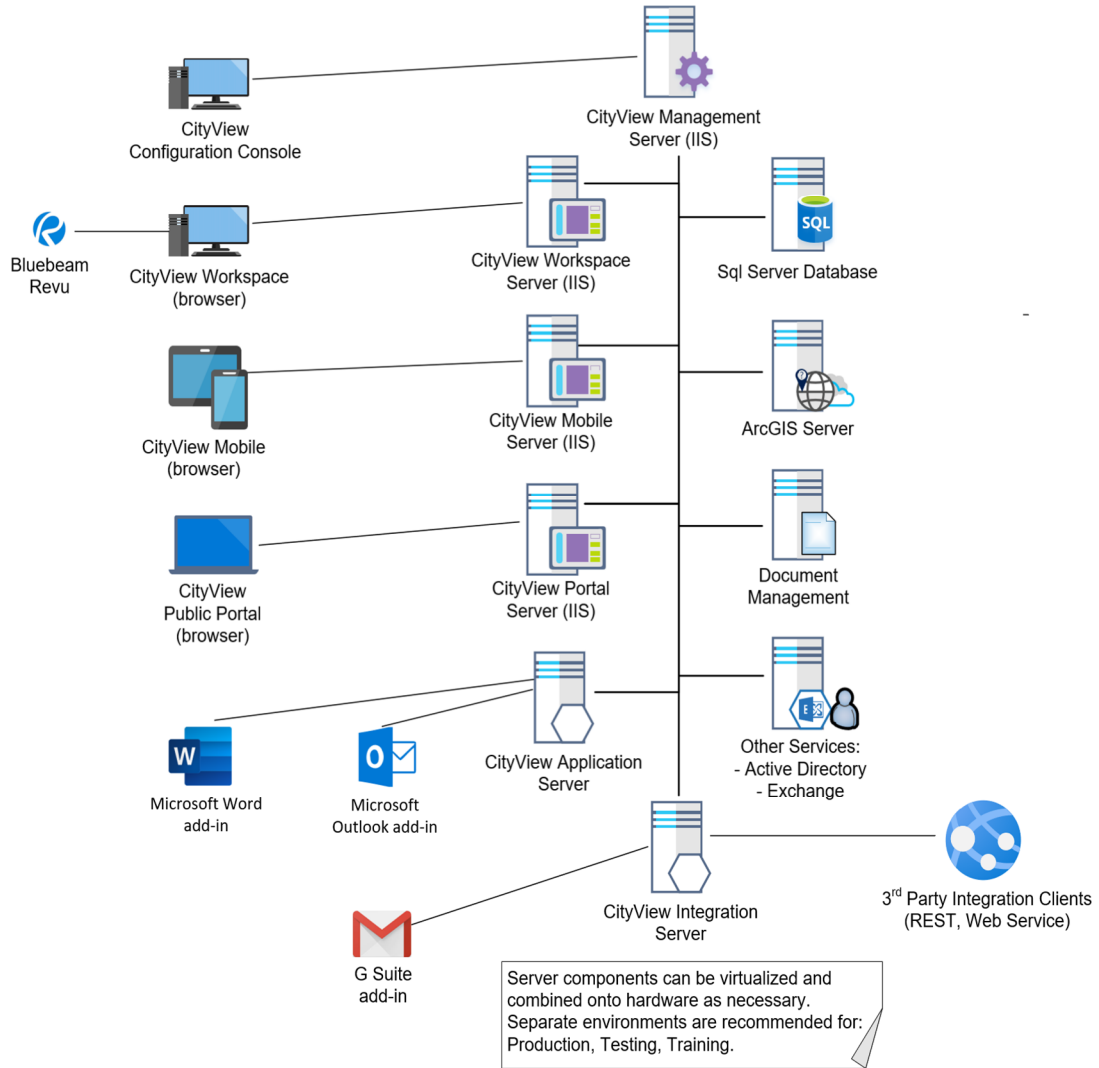
Supported Versions	Notes
Twilio	<a href="#">Configuration information.</a>

## Reporting Technologies

CityView supports optional integration with the following reporting systems.

Supported Versions	Editions	Notes
SSRS 2016	32 -bit and 64-bit editions, Express and higher	Valid TLS certificate required 1.2 or higher required on server for Workspace.
SSRS 2014	32 -bit and 64-bit editions, Express and higher	
SSRS 2012 R2	32 -bit and 64-bit editions, Express and higher	
SSRS 2012	32 -bit and 64-bit editions, Express and higher	

### CityView Conceptual Architecture



**Note:** The CityView websites (Workspace, Portal and Mobile) require TLS for security. In addition, embedded content like the City’s SSRS Report Server and the ArcGIS Map Server (where your map service is deployed) needs to be SSL enabled. As such, you will need to provide a valid TLS certificate. The two available options are to purchase a signed certificate by a verified TLS Certificate provider. This is the preferred option. Alternatively, a self-signed TLS certificate can be created. The self-signed option requires manual creation of the certificate as well as manual installation of the certification on all client devices.

## VII. Roles & Responsibilities

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Below is a description of the roles and responsibilities of each of the resources in the Project.

Your **CityView project team** is comprised of:

- **Executive Sponsor**
- **Project Manager,**
- **Implementation Specialist/Trainer,**
- **Infrastructure Analyst,**
- **Data Conversion/Interface Specialist,**
- **Application Development Team,**
- **Quality Assurance Team.**

### **Executive Sponsor**

The Executive Sponsor has the overriding responsibility for the outcome of the project in terms of project success and fiscal responsibility. The Executive Sponsor's responsibilities include:

1. Monitor the progress of the project
2. Empower the CityView Project Manager and the core project team to make decisions
3. Be the senior decision-maker for anything outside the authority of the Project Manager, as well as a senior executive and mediator for escalated issues
4. Support the Project Manager in accomplishing the implementation goals
5. Maintain an active relationship with the City of Billings.

### **Project Manager**

He/she is involved in both the facilitation of the project as well as hands-on work in each project phase to ensure that requirements are met and project deliverables are clearly defined. The responsibilities include:

1. Be the primary point of contact for the Billings' Project Manager
2. Ensure successful delivery of CityView's tasks
3. Participate, where necessary, in gathering of the business process requirements
4. In coordination with the City of Billings' Project Manager, create the project schedule and keep this schedule up-to-date throughout the project
5. Coordinate the scheduling of tasks for the implementation according to the project schedule
6. Manage the CityView project resources
7. Provide brief bi-weekly status update to the City of Billings' Project Manager
8. In coordination with the City of Billings' Project Manager, co-conduct the project Kick-off meeting
9. Review and approve CityView's data collection scope documents for Sign-off
10. Seek sign-off on all CityView deliverables and approval documents from the City of Billings' Project Manager
11. In coordination with the City of Billings' Project Manager, manage scope change control
12. Assist the Billings Project Manager in defining the training and Go-Live plans

13. Support City of Billings in the Go-Live preparation steps
14. Hold review & status meetings with Billings resources
15. Facilitate and provide timely resolutions to issues and concerns as it relates to CityView resources, project issues, etc.

### **Infrastructure Analyst & Development Environment Manager**

The CityView infrastructure analyst (IA) works with the City to review the City of Billings' hardware and software infrastructure as it pertains to the optimum functioning and performance of CityView. Typically, the IA is also our Manager of Support and as such carries responsibilities of managing the customer's hosted development environment, facilitating updates and installs and troubleshooting issues. Responsibilities include:

1. Prepare and distribute the Infrastructure Review Questionnaire to the City of Billings, for collection of appropriate information required to analyze hardware and software infrastructure
2. Handle any questions and seek clarification on any items in ensuring the information received is complete, for the purpose intended
3. Assess the suitability of the infrastructure and deliver the Infrastructure Review report
4. Provide guidance on hardware sizing, third party software, Esri map development and configuration, installation guidelines
5. Coordinate initiation of the Billings' hosted Development Environment and manage this throughout the project, including updates and merges
6. Together with the City of Billings' technical administrator, coordinate installs at the client site
7. Deliver the System Administrator Training

### **Implementation Specialist/Trainer**

The Implementation Specialist/Trainer (IS) will work closely with the City through on-site visits, follow up calls, training, and demonstrations in order to define the scope of the configuration effort. The IS configures your CityView environment and prepares the environment for the onsite activities. Typically, the IS's also deliver the end-user training and Go-live assistance. Responsibilities include:

1. Provide progress status to the CityView Project Manager
2. Perform the data collection and work with the City of Billings' Subject Matter Experts (SMEs) to understand and collect the business requirements
3. Work with the SMEs in designing the CityView Activities workflows
4. Provide best practices recommendation and solutions where applicable
5. Compile the data collection documents for the scope document
6. Configure the Software based on the scope documents
7. Unit test the configuration
8. Provide configured system to Application Developer Team Lead and QA Team lead for configuration review and testing
9. Provide validation and acceptance testing support
10. Work with the City of Billings' SMEs to log Validation feedback and correct misconfiguration items
11. Work closely with the CityView, Developers and QA Lead to answer any business-related question that might arise

Often the IS's are also the Trainers as they are qualified as such, and they have the best understanding of the City of Billings' configured environment going into the training. Trainers have the following responsibilities:

1. Provide training to the different City of Billings groups as follows:
  - i. Subject Matter Experts
  - ii. Advanced Users
  - iii. End Users
2. Provide electronic copies of training materials where applicable
3. Provide electronic copies of training sessions' agendas
4. Leverage adult learning methodology and teaching techniques while documenting and escalating any concerns to the implementation Project Managers

### **Data Conversion & Interface Specialist/s**

Responsible for analysis, design and testing of the interfaces between CityView and any 3<sup>rd</sup> party applications or databases. Responsible for the data conversion tasks of Organization's data sources. List of responsibilities include:

1. Evaluate interfaces functionality requirements
2. Provide recommendations on interfacing approaches
3. Identify Interfaces issues
4. Perform the analysis of the required interfaces
5. Evaluate a sample data structure provided by the City of Billings to which CityView must create an interface
6. Create the design documentation of the required interfaces
7. Manage interfaces design documents and revise according to the City of Billings' review and comments
8. Forward the interfaces' design documents to the CityView Project Manager for review and approval
9. Unit test the interfaces to ensure they meet the specifications outlined in the design documentation
10. Work closely with the CityView Developers to answer any technical related question that might arise
11. Provide training support to the City of Billings' Technical Experts regarding the interfaces
12. Evaluate sample data structure from which CityView will be converting electronic data
13. Provide data conversion analysis with the City of Billings' Data Conversion Expert
14. Provide recommendations on data conversion approaches
15. Provide data conversion mapping review and assistance
16. Identify conversion issues
17. Develop data conversion scripts according to the final mapping documents
18. Perform the preliminary cut data conversion
19. Unit testing the preliminary cut data conversion
20. Modify data conversion scripts based on test results if necessary
21. Perform any other agreed on intermediary cuts of data conversion
22. Setup the production ready cut and briefly unit test the production ready cut data conversion
23. Provide assistance to the City of Billings' Data Conversion Expert in loading the preliminary cut of the converted data and test it

24. Communicate directly with the City of Billings' Data Conversion Expert on any data conversion related issue / question

### **Application Development Team**

Reporting to the CityView Project Manager, the Developers will be responsible for the development of any assigned custom reports or customization requirements. Below is a list of responsibilities to be performed by the Developers:

1. Create in-scope custom reports and unit test them
2. Create in-scope customizations and unit test them
3. Create in-scope interfaces and unit test them
4. Provide customizations and interfaces to the QA Team for unit testing
5. Periodically review the ISs configuration for adherence to best practices and efficiencies and provide guidance and oversight where necessary

### **Quality Assurance Team**

Responsible for testing the quality of your CityView solution and any customizations and interfaces. They use a combination of automated and manual testing on your environment. Bug Tracker Tools, Unit Testing, and Manual Test Cases are used in a strategic test plan that results in a stable, error free application for delivery. Responsibilities include:

1. Maintain QA environments on the same version as the City of Billings' Development Environment for parallel testing and troubleshooting
2. Log test results, log issues in detail and provide issues logs to Application Development team
3. Provide unit testing as detailed within roles above
4. Provide advice on timing and readiness of version releases.

We envisage the **City of Billings' project team** is comprised of:

- **Executive Sponsor**
- **Steering Committee**
- **Project Manager,**
- **Subject Matter Experts (SMEs),**
- **Data Conversion Expert,**
- **Technical Analysts/Experts,**
- **Database Administrator,**
- **Systems and Network Administrators,**
- **Testers (often the same people as the SMEs),**
- **Application Administrators**
- **Trainers**
- **End Users**

### **City of Billings Executive Sponsor**

The Executive Sponsor provides the vision of the project in alignment with the City of Billings' corporate short term and long-term goals and objectives. The Executive Sponsor's responsibilities include:

1. Participate on the project Steering Committee
2. Promote the project throughout the City of Billings
3. Monitor the progress of the project
4. Monitor the overall City of Billings impact
5. Empower the City of Billings Project Manager and the core project team to make decisions
6. Make timely decisions
7. Maintain the authority to set priorities, approve overall scope and settle issues / priorities that significantly affect the project and the City of Billings
8. Support the Project Managers in accomplishing the project goals
9. Provide a vision of the City of Billings' goals
10. Maintain an active relationship with CityView Management

### **City of Billings Steering Committee**

Should the City of Billings wish to form a Steering Committee for the project (internal to the City of Billings), the Steering committee typically develops the vision for the project in alignment with the City of Billings' short term and long-term goals and objectives. The Steering committee is suggested to be composed of the City of Billings Project Sponsor(s), the City of Billings' Executive Sponsor and the City of Billings' Business Leads. The Steering committee has the following responsibilities:

1. Attend Steering Committee meetings
2. Set priorities
3. Approve scope and scope changes
4. Resolve escalated issues
5. Provide strategic guidance to achieve the define project goals
6. Promote the project throughout the City of Billings
7. Commit the required resources to the project and approve new ones when required
8. Monitor the project progress
9. Monitor the overall City of Billings impact
10. Approve extensions to project timeline or addition of new City of Billings resources to resolve City of Billings -side delays
11. Empower the City of Billings Project Manager and the core project team to make decisions
12. Generate timely decisions
13. Conduct periodic review of project progress
14. Make strategic decisions to manage business and project risks
15. Support both Project Managers to accomplish project goals
16. Have an active relationship with CityView management

### **City of Billings Project Manager**

The City of Billings Project Manager is responsible for the overall City of Billings deliverables and the day-to-day management of the project. This resource is the primary liaison between the CityView Team, the City of

Billings' project team and the Steering Committee. Both Project Managers will work together to meet the objectives, address issues, facilitate resolution and participate in active management of the teams. Below is a list of responsibilities to be performed by the City of Billings' Project Manager:

1. Manage all City of Billings resources for project related activities
2. Manage the project (budget, timeline, quality, risks, scope, issues, deliverables, etc.) in cooperation with CityView's Project Manager
3. Communicate project status to the Steering Committee, the Executive Sponsor and the project team leveraging updates from CityView's status updates
4. Participate in the Steering Committee meetings
5. Create, maintain, manage and refine the project schedule with all its elements in cooperation with the CityView Project Manager
6. Maintain project standards especially Scope & Status reporting
7. Prepare, organize and co-conduct with the project kick-off meetings
8. Manage the delivery and coordination of City of Billings project tasks
9. Manage all project deliverables in coordination with CityView's Project Manager
10. Manage and streamline the issue management process in conjunction with CityView Project Manager
11. Manage project deviations and take necessary corrective actions
12. Participate in gathering of the City of Billings' business process requirements when required
13. Plan, manage and execute the Acceptance Test efforts
14. Plan, manage and execute the end user training efforts
15. Provide timely reviews and potential sign-offs on all project deliverables approval documents as presented by the CityView Project Manager
16. Review and accept project milestones
17. Manage the logistical activities of the end user training
  - a. Training facilities
  - b. Students booking
  - c. Scheduling of sessions
  - d. Monitoring and logging the end user attendance
18. Capture the end user feedback
19. Responsible for internal & project communication
20. Provide guidance to project team members
21. Lead the Go-Live preparation planning
22. Participate heavily in the Go-Live preparation tests
23. Must provide Go / No Go Decision throughout the project phases
24. Must be present for Go-Live

### City of Billings Subject Matter Experts

The Business Experts own the business process within their functional areas since they perform these day-to-day business processes. These people collectively form the knowledge base of the City of Billings' business process requirements. Such resources will be involved in the Data Collection, as well as approval of the Scope Documentation and testing and acceptance of the configured system. They will further verify that the new configured system meets the City of Billings' business requirements as outlined in the Scope Documentation. They will participate in making decisions regarding the business processes and they will help both Project Managers manage the project scope and all the associated deliverables. Below is a list of responsibilities to be performed by the SMEs

1. Attend data collection & validation training sessions
2. Participate in appropriate project team meetings
3. Work with the CityView IS to provide input into the analysis of the business requirements and review the Scope Documentation
4. Work with the CityView IS to validate the configuration through validation testing
5. Develop appropriate validation test cases based on business scenarios
6. Assist the City of Billings' Data Conversion Expert in data conversion validation & acceptance
7. Assist in the development of user procedures
8. Assist the project team in defining user access levels and privileges
9. Assist the project team in the Go-Live support planning
10. Provide end user post implementation Go-Live support where applicable
11. Assist the City of Billings' Project Manager in problem resolution
12. Support End User Training and documentation preparation
13. Must be present for Go-Live

### City of Billings Data Conversion Expert

The Data Conversion Expert will be involved with the CityView Data Conversion Specialist in analyzing, mapping, loading and testing the different cuts of data conversion. This resource must possess a strong knowledge of the existing data sources that will be converted from both the user and database ends of the existing systems that need to be converted. This resource will also learn about the database structure and the integrated tables (from data mapping documents provided by CityView) as this knowledge will help them relate to their existing data sources. This resource will also review and finalize the data mapping documents and will test the data once the preliminary cut is completed by CityView. Below is a list of responsibilities to be performed by the City of Billings' Data Conversion Expert:

1. Act as the primary contact for CityView Data Conversion Specialist
2. Acquire knowledge from the CityView Data Conversion Specialist as analysis & mapping is performed
3. Understand the database structure through knowledge transfer and documentation provided by CityView
4. Provide file layouts, where available, for existing data sources
5. Provide data sources in an agreed to format
6. During the analysis, provide documentation pertaining to the current systems (existing user manuals, etc.) if available
7. Lead the analysis of the existing data sources as they relate to the database

8. Finalize and approve the data mapping documents once prepared and delivered by the CityView Data Conversion Specialist
9. Test and potentially accept the preliminary data conversion cut and any other subsequent data conversion cuts whether performed by CityView or the City of Billings' resources
10. In coordination with the Database Administrator, prepare any other database environments that might be required for data cuts
11. In coordination with the Database Administrator, prepare the production database for the final cut data load
12. Work in conjunction with CityView to identify and possibly resolve conversion issues by directly communicating them to the project team, CityView, users and management
13. Participate in the Go-Live preparation planning
14. Should be present for Go-Live

### **City of Billings Technical and Advanced (Power) Users**

These resources are involved with the CityView resources to learn the report writing tool and system configuration. They *could* assist in these two functions once knowledge transfer is accomplished. Once trained they will have access to the tools to support the end users with any future configuration enhancements to the system. These resources could also work in conjunction with CityView to lead the interfaces (third party integrations) **analysis, definition and acceptance** testing. Below is a list of responsibilities to be performed by the City of Billings' Technical Experts:

1. Attend required Advanced training sessions (Configuration, Reporter Training)
2. Acquire the necessary knowledge from the CityView resources through training sessions and documentation
3. Participate in the analysis, design and acceptance testing of all interfaces to 3rd party systems (potentially)
4. Should be present for Go-Live
5. Other responsibilities depending on the degree of participation encouraged by the City of Billings

### **City of Billings Database Administrator**

This resource will be responsible for setup and maintenance of the different databases (Testing/ Training and Production) during the initial project phase and for any subsequent requirement. Below is a list of responsibilities to be performed by the City of Billings' Database Administrator:

1. Setup the initial databases in conjunction with CityView resource(s)
2. On-going database configuration, monitoring, tuning and troubleshooting of the database environments
3. Manage production database growth
4. Provide support to the project team during the project implementation as identified in the project schedule
5. Manage the performance of the database
6. Establish and maintain database security and coordinate with application administration the application security levels
7. Include the databases in the normal backup routines and add them to the recovery management plan

8. Coordinate activities with City of Billings network and workstation administrators
9. Manage and execute database installation and upgrade patches
10. Participate in user access rights and privileges planning, definition & testing

#### **City of Billings Systems & Network Administrators**

These resources will be required to provide assistance to the project team on an as needed basis. Below is a list of responsibilities to be performed by the City of Billings' Systems & Network Administrators:

1. Prepare servers for initial software setup and configuration
2. Provide setup of servers and provide network connectivity
3. Setup required peripherals for the different environments
4. Provide setup of clients' workstations if required
5. Setup testing environments as requested by the City of Billings' Project Manager
6. Participate in Go-Live preparation tests
7. Should be present for Go-Live

#### **City of Billings Trainers**

City of Billings trainers will be used to provide the following: Trainers have the following responsibilities:

1. Provide End User training to the different City of Billings groups.
2. Provide electronic copies of training materials where applicable
3. Provide electronic copies of training sessions' agendas
4. Leverage adult learning methodology and teaching techniques while documenting and escalating any concerns to the implementation Project Managers

#### **City of Billings End Users**

These resources will be trained on the proposed products. Below is a list of responsibilities to be performed by the City of Billings' End Users:

1. Attend and actively participate in the appropriate training sessions provided by CityView
2. Understand existing business processes as well as the project scope at a reasonable level of detail
3. Have good Windows navigation skills

## VIII. Schedule

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The project plan will be defined by the Project Managers as an initial step in the project. Start date will take into account each party's current schedule of activities. Please note CityView's implementation resources are currently booked 120-150 days in advance. The City will be added to CityView's schedule after a signed agreement is received.

## IX. Project Acceptance

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After delivery of the fully configured solution, we expect the City to undertake acceptance testing using self-generated testing scenarios. Should the testing identify any defects, CityView will provide in-scope fixes at no additional charge in parallel to, or immediately subsequent to, the acceptance testing.

After all fixes deemed essential for go-live are provided and retested, the code will be frozen and deployment will commence. Provided the acceptance criteria have been met, the City will be asked to formally accept the delivered solution for Go-live. Following go-live the CityView project team will work with the City to record any known issues. The project team is responsible for the resolution of these known issues. Thirty (30) days after Go Live CityView will request the Statement of Completion that substantiates the product has been delivered and is being used successfully in a live, production environment to accept permit applications, generate fees, record fee payments and generate correspondence associated with permit processing.

During the first 4 weeks after go-live, the project team will begin to familiarize and transition the project to the Technical Support group. At the end of 6 weeks the Project Manager will arrange a formal hand-off involving the City, the CityView Project Manager and the CityView Support group formalizing the transition of any new defects, bugs and support issues to the Support team.

## X. Change Order Management

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To ensure timely and effective delivery of the project, the scope will be tightly managed. Project change control procedures will be reviewed with the team at the beginning of the project to ensure that they are clearly understood. This review helps establish a common understanding of the need for project change control and the mechanics for implementing any changes to the scope of the project. Any alterations to the project scope, budget, or schedule will be documented and authorized via the Change Control process.

A Change Control refers to any modification and/or new development deviating from the baseline established in the Statement of Work and Scope Document. It includes changes to the software, database, training, consulting services, or related processes. Each modification (or group of modifications) to the Contract, Statement of Work, or Scope Document must be documented and approved by a Change Control Form. All potential changes are compared against the project baseline in terms of functionality, schedule, cost, upgrade capability, maintainability and resources. Change Control requests can be raised by any member of the CityView or City of Billings Project Teams.

The following steps will be followed with any changes to the baseline system:

- The change control process will begin with a team member identifying a function or design alternative not already identified as part of the baseline system or a function that is part of the baseline but because of design issues may impact cost, schedule, or resources
- The person requesting the change will complete a Change Control Form and forward it to the appropriate Project Manager to determine cost, resources, and schedule impact, and the PM will forward the request on to their counter-part. Once these are determined, approval by the CityView Project Manager and City of Billings Project Manager is required.
- Once approved (or denied), the change request is entered into the change control log and is placed on the agenda of the next Joint PM meeting

Any impact to the cost, schedule and/or resources will be elevated to City of Billings Project Sponsor and CityView Project Manager for their review and approval.

**Sample Change Order Document**

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**Change Order / Quotation**

CHANGE ORDER DESCRIPTION			
<b>Request Date</b>		<b>Quote Number</b>	
<b>Client/Project</b>		<b>Valid Until</b>	
<b>Requestor</b>		<b>Created By</b>	
<b>Description of the Requested Services</b>			
<b>Impact Assessment:</b> Estimate impact to budget, work effort and schedule.			
<b>Total Cost Estimated</b> \$		<b>Planned Delivery Date</b>	
<b>Payment Terms</b>			
APPROVALS			
	PRINT NAME	SIGNATURE	DATE
<b>For Customer</b>			
<b>For CityView</b>			

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## XI. Issues & Problem Resolution

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An issue refers to any matter that requires someone to make a decision, and about which no agreement has been reached or can be routinely reached. Typically, issues impede project progress until they are resolved. Change Control items may become issues if they're not dealt with quickly, but Change Control items are specific to the process of authorizing design changes that impact scope, schedule or budget whereas issues can be related to anything about the project that needs to be decided.

The CityView Project Manager will maintain an issue log and will assign responsibility for the resolution of project issues and reports progress to City of Billings' Project Manager and the CityView Project Team. Any Project Manager or team member can submit an issue for logging and resolution. Most project issues are expected to be resolved within the overall Project Team. If the issues are not resolved to the satisfaction of the Project Team, they may need to be escalated to the Project Executive Sponsor or appropriate level.

Typical project situations requiring escalation include conflicting resource demands threatening project staffing, group dependencies not being met, scope disagreements and issues with functionality of the project's deliverables nearing release time.

Escalation Process:

CityView escalation levels in the order listed below:

1. Project Manager
2. Manager, Implementation Services
3. VP, Professional Services
4. Executive Vice President

City of Billings escalation levels in the order listed below:

1. Project Manager
2. Steering Committee
3. Executive Sponsor

## XII. Matrix of Requirements

CityView’s RFP response to the City of Billings, MT Request for Proposal (RFP) for Community Development Software – August 26, 2022 – **Scope of Work** are provided hereto and attached herein by reference

Please find below and on the following pages CityView’s response to the City’s Scope of Work.

Describe in detail the overall functionality of the Community Development software:

Requirement	Meets Requirements Yes / No	Comment
<p>Does the software package offer a complete automated solution from citizen initiation to back-office software and mobile software to a final product that the citizen is able to easily access? Describe the process.</p>	<p>Yes</p>	<p>CityView provides your constituents and contractors the convenience of working with the City 24/7 without having to leave their homes and offices. The CityView portal offers access to public facing information and interactive services to registered and non-registered users. The CityView Portal is designed for public use in a variety of ways including: ease of use, security, and general functionality. Using the CityView Portal, citizens and contractors can initiate code cases, apply for and pay for permits, check permit status, requests inspections and meetings, view public information regarding specific properties, and much more. The design is consistent with typical, intuitive web browser use and is browser-agnostic. CityView workflows automate common business processes to save you time. Our workflow tools help you manage and track assignments including defining deadlines. They automatically generate subsequent activities to create a record of your business processes and ensure accountability. CityView Mobile allows City staff to easily access key functionality from the field using devices such as iPhones, iPads, Android devices, and Windows tablets from a browser based user interface.</p>
<p>The City requires a paperless system. Describe the software’s workflow process for routing reviews and inspections. How is it configurable?</p>	<p>Yes</p>	<p>CityView’s Electronic Plans Review solution combines electronic submission, version control and workflow capabilities with the functionality of Bluebeam Revu for document review and markup.</p>
<p>GIS is an integral part of any new Community Development software for the City of Billings. Describe how the software is integrated with GIS.</p>	<p>Yes</p>	<p>CityView’s integration with Esri’s ArcGIS Server assimilates mapping and spatial analysis into your everyday business activities whether in the office, in the field and publicly. Staff can quickly locate a job location on a map; measure</p>

		<p>distance, boundaries and areas, create adjacent and buffered spatial queries for mailing lists, kick-off permit and other processes from the map and spatially analyze the surroundings of subject properties and project footprints. Maps can be utilized to:</p> <ul style="list-style-type: none"> <li>• Embed into reports, letters and forms, e.g. so that inspectors can see where their inspections for the day are located throughout the City</li> <li>• Allow users to select properties based on GIS information and then use the selection to send notices, updates or other letters to the contacts on the properties.</li> <li>• View search results on a map or search spatial attributes from the map.</li> <li>• Use Esri Feature Service layers to draw temporary locations which can then be used in CityView’s integration with Esri’s ArcGIS Server or ArcGIS Online to assimilate mapping and spatial analysis into the everyday business activities of CityView users in the office, in the field, and publicly.</li> <li>• Flag activities of interest for other users to see e.g. planned route for overloaded vehicle, street closure for maintenance etc.</li> <li>• Run spatial queries to automate the business process.</li> </ul>
Can GIS attributes merge into Community Development software? Our goal is to have one place to store common information needed by multiple departments.	Yes	Yes, typically through spatial queries.
Is the software integrated with Microsoft Office for email and calendar functions? Are these functions available online as well? Describe the Microsoft Office integration with this software. Are emails customizable?	Yes	The CityView Outlook Add-in is a browser-based integration between CityView and Microsoft Outlook. The Outlook add-in is an interactive integration between CityView and an individual user’s Outlook email and tasks. The CityView Outlook Web Add-in can be configured for use in Outlook via office.com or your installed version of Outlook. Yes, emails are customizable.
Does your software meet these requirements?		
Ability to schedule/accept/track meeting requests in Outlook.	Yes	

Ability to send emails and communicate through Outlook in program with Outlook plug-in.	Yes	
Ability to attach emails and attachment files from Outlook directly into permit file with Outlook plug-in.	Yes	
An inspection-scheduling feature to easily assign and schedule inspections between multiple inspectors and an option to be integrated with Outlook calendar.	Yes	Technically, the scheduling functionality occurs in Microsoft Exchange. Calendars are viewed through MS Outlook.
Does the software provide the ability to generate automatic emails and/or notifications to staff when plans are approved so they may instruct applicants to pay fees or whatever next steps may be?	Yes	This is managed through workflow, but emails can also be generated if so desired. The email to the applicant to request the payment of fees so the permit can be approved is generated by the system and can be edit by City staff.
Do the individual modules “talk” to each other? For example: will the permit module know whether a contractor has an active Business License and stop the contractor from getting a permit? Can we view all cases, licenses, permits, and projects in a common area so a user knows what has happened on a particular property?	Yes	Yes, including in CityView Mobile in the field.
The software needs the ability to set time limits and track time for application reviews and permit inspections. Does your program have the ability to log time spent for reviewing applications, plans and permits and completing inspections for each step in the process?	Yes	Yes, and report on it as needed. Emails can be generated to notify management when tasks are overdue.
The software needs to automatically update statuses as projects, cases, licenses, and permits work their way through the process. System should not enable work on a subsequent step until all current reviews are completed as defined by user. Describe how the software handles updating statuses.	Yes	This is primarily managed through workflow in CityView. Some “scheduled processes” such as Expired Permits scheduled process can update the status of a permit.
Applications can cross multiple parcels. Does your system allow multiple	Yes	

addresses to be entered on an application?		
Does your system utilize a common Cash Receipting function that is available for all modules?	Yes	Yes, and CityView has an option with the Invoice Cloud payment gateway for an integrated point of sale solution.
Does software include dashboard functionality for each module? Provide details on how dashboards work with your product.	Yes	Dashboards are unique to users but do have module specific functionality depending upon the user's role in the system. User dashboards are the starting point where every CityView session begins. From the dashboard, you can access your To Do List, maps, inspection scheduling, history of previous work, and reports and more. The title bar also provides access to key functions like Searching and access to CityView Connect (CityView's online documentation).
Access to data is important. What reporting capabilities does the software include and are reports customizable?	Yes	CityView provides out of the box reports for each module, as well as a user-friendly reporting tool (CityView Reporter and ad hoc queries), and the ability to link SSRS reports to the users' catalog that allows the City staff to develop any necessary reports needed. Yes, reports are customizable.

Describe in detail how the software interacts with customers through the use of a public portal:

Requirement	Meets Requirements Yes / No	Comment
Describe what technology your public portal uses. Explain how you keep the technology current and protected from security threats.		CityView Portal uses Microsoft's MVC Platform running under IIS as the technology, and we do regular 3 <sup>rd</sup> party penetration testing to keep current with security concerns.
Describe the functions that a customer can accomplish using your public facing customer portal for each module.		Customers can manage their Portal account including updating contact information, link their Portal account to a business or contractor license and more. They can manage all business interactions with the City under My Items (dashboard).
Permits	Yes	Users can apply for permits including submitting items electronically, estimate fees, request an inspection, request a meeting, search for an application, and pay fees. Users can also save application in process.
Projects	Yes	Users can apply for projects including submitting items electronically, estimate fees, request a meeting, search for an application, submit appeal or hearing comments, and pay fees. Users can also save projects in process.

Code Enforcement	Yes	Users can submit complaints including pictures of concerns, search for cases, and check on the status of a complaint.
Business Licensing	Yes	Users can apply for a business license including uploading submittals for an application, can search for a business, renew a license and pay fees.
Are property search and mapping capabilities included to make locating properties and identifying permits, projects, cases, and licenses easy for the public and our staff? Does your system use a "partial word" search and other advanced searching functions?	Yes	Yes, property search and mapping capabilities are included. As for search a user only needs to start typing what they know of a query, i.e., "main" will return results with the word main in it.
Are administrators able to customize the look and configure messages within the customer portal?	Yes	CityView uses cascading style sheets to "customize" the look and feel of the CityView Portal to match the City's website. Messages can be configured by administrators on the Portal.
Does the project/permitting application process allow for a review/acceptance phase prior to creating a project record?	Yes	Yes, it is a step in the workflow. This also allows the City to track abandoned or incomplete applications.
Does the public portal allow for large file uploads? Please elaborate on file size and type capabilities. Does it accommodate single page and multipage files? Can we specify required naming conventions? Can the customer attach multiple files at a time?	Yes	Yes, the City determines the file size and types that can be uploaded. Single and multipage files can be accommodated. The City can include recommended naming conventions on the Portal. And yes, customers can attach multiple files at one time.
Are Automatic e-mail notifications generated as projects and permits progress? If so, does the program have the ability to have multiple contacts listed and select who gets emails based on the phase of the project (application, review, permit issuance, construction)?	Yes	Emails notifications are generated as part of workflow for permits and projects.
The City of Billings currently uses Invoice Cloud as our online payment processor for Accounts Receivable and Utility Billing. We would like to continue using Invoice Cloud for these services and add Community Development payments into this same payment processor, if possible.		
Does your software currently integrate with Invoice Cloud?	Yes	CityView has an out-of-the-box integration to Invoice Cloud. In addition, CityView has an (optional) point of sale integration for counter payments with Invoice Cloud.

What do you currently use for your online payment processor?	Yes	Invoice Cloud is one of two preferred payment providers with CityView.
Once fees are paid, what is the process for the applicant to download the approved plans/documents for printing?		When fees are paid, City staff will issue the permit or project and approved plans/documents are pushed to the Portal where they can be downloaded and printed.
Does your system provide the ability to manage/integrate agendas and meetings and provide online meeting capabilities for public hearings?	Yes/No	CityView has hearing/meetings functionality included. We can integrate with a City solution also. No online meeting capabilities.
Is the customer able to provide an eSignature if required when submitting applications?	Yes	Assumption is the customer will acknowledge legal language as part of the application submittal process.

Describe how your software provides for electronic plan review by addressing the following items. Your response must touch on all items identified, but respondents are encouraged to provide additional information if applicable:

Requirement	Meets Requirements Yes / No	Comment
BlueBeam software sets the standard for plan review and collaboration and the City is committed to using BlueBeam as part of its solution. Is your permitting and workflow management solution able to fully integrate with BlueBeam? This will streamline the review process with the concurrent review capability and workflow. Please describe, in detail, how the software incorporates the use of BlueBeam.	Yes	Yes. CityView's Electronic Plans Review solution combines the exceptional submittal, approval routing, version control and workflow capabilities of CityView with the capabilities of Bluebeam Revu, so you can circulate, mark up and review documents, plans and construction drawings. CityView is a Bluebeam Alliance Partner with a fully integrated EPR solution with Bluebeam since 2013.
If your software is not integrated with BlueBeam, explain the measuring capabilities including the ability to measure curved paths and routes.	n/a	
Is an audit trail and version comparison for plan review included? We need the ability to pull the review layer from the previous and overlay or compare two plans to see changes.	Yes	
Does the plan review program have scheduling, tracking, and workflow capabilities?	Yes	Electronic Plans Review is fully integrated solution within CityView.
Does the plan review program allow for opening multiple sheets of a plan set and multiple plan sets concurrently from the program?	Yes	Yes, they open in Bluebeam Revu.

Can this software solution automatically generate letters or emails from summary of correction items and send to applicant or edit and then send?	Yes	Yes, CityView can auto-generate a summary letter and then email the letter to the applicant or other stakeholders. The Correction Notice is generated in Word where it can be edited using CityView's Microsoft Word Add-In. When the letter is printed, it is also emailed to the applicant, pushed to the Portal for retrieval later should the applicant need to and also pushed to Questys (document management solution) all by workflow.
Is an option to log time spent for reviewing and timeframe for each step in the process included?	Yes	
Does the project/permit status automatically change as the project moves through the process and review steps? Can automatic updates be sent if requested by the project contact?	Yes/Yes	
Please describe how the software, through use of an online portal easily facilitates the submission of revisions and new plan sheets to incorporate into the plan set.		CityView's electronic plans review solution manages the versioning of revisions along with the workflow associated with the process. The end-user only needs to follow the steps in the Portal to complete submission of revisions.
Does the software provide the ability to add an approval stamp to all sheets and 'flatten', or lock, image so mark-ups cannot be edited?	Yes	Technically, the stamping is a function of Bluebeam Revu but CityView manages the stamping process so that a stamp can be applied without interfering with approved plans or marked up plans.

Describe how your software incorporates mobile features designed for field use, offsite inspections, reviews, and code violations:

Requirement	Meets Requirements Yes / No	Comment
Does the mobile program give full access to our inspectors and enforcement officers in the field with a full-feature program made for mobile devices?	Yes	<p>CityView Mobile allows city field staff to easily access key CityView functionality from devices such as iPhones, iPads, Android devices, and Windows tablets. Users can:</p> <ul style="list-style-type: none"> <li>• Access their inspections to-do lists for the day and view them on a map.</li> <li>• Set inspection order and notify contractors through portal of the inspectors' route</li> <li>• Complete inspections in the field.</li> <li>• Time inspections with a start/stop clock</li> <li>• Automate SMS messages to contractors ahead of inspectors' arrival.</li> <li>• Route planning</li> </ul>

		<ul style="list-style-type: none"> <li>• Integrate with the GPS of the mobile device</li> <li>• Look up contractors to display the status of their licenses.</li> <li>• Perform permit searches to check for status and outstanding fees.</li> <li>• Perform property searches to check for valid permits, code cases etc.</li> </ul>
Is the mobile application integrated with GIS? Explain.	Yes	CityView Mobile uses GIS data in a number of different ways. (1) To view inspections on a map (2) Routing for most efficient method (3) To identify nearby permits, projects and code cases dynamically in the field.
Is a 'disconnected mode' feature provided when data service is not available?	Yes	<p>CityView uses advanced mobile device technology to run seamlessly even in situations with little or no connectivity (i.e. "disconnected mode") ensuring inspectors can continue working even when:</p> <ul style="list-style-type: none"> <li>• Conducting inspections in areas with limited or intermittent cellular or WiFi coverage</li> <li>• Losing connectivity moving between floors in a structure on a job site</li> <li>• Any situation in which transferring data between the mobile device and the CityView server will be difficult or impossible</li> </ul> <p>CityView Mobile will seamlessly move between connected and disconnected mode as the device loses and regains its connection.</p>
Does the software time inspections to track workload?	Yes	
Are inspectors able to schedule inspections in the field from the mobile application?	Yes	
Should allow for multiple sorting options on workflow such as time, address or urgency.	Yes	
Should be integrated with outlook to send notice of approval, corrections, correction lists and finals to pertinent contractors and city personnel.	Yes	Integrated to the City's mail server to facilitate these types of communications.
Does the software generate correction items list to email to contractor/owner and save a copy in the permit file for anyone to reference?	Yes	
Are there 'voice to text' capabilities?	No	This is a function of the device. CityView Mobile uses the "voice to text" capabilities of your device.
Does the software include easy photo upload or the ability to take photos	Yes	

directly from application to add to an inspection record?		
Are attachments available to be viewed through mobile for all applications?	Yes	Assumes a data connection is available.
What mobile devices are recommended and/or supported for staff using this application in the field? Include information about operating systems, screen size, touch screens, input devices, etc.		CityView Mobile is device agnostic. A modern browser is all that is required. Tablets such as iPads or Android devices are the most commonly used by CityView customers.
<b>Permits:</b>		
Permit records must be able to distinguish between multiple departments using the permit module. We currently issue Building, Planning, Engineering, and Utility permits through our Permitting system. Describe how this is accomplished in your system.		Controlled through security (user's role), workflow, and business rules.
System must be able to calculate fees based on multiple criteria. Explain how fees can be configured.		CityView's "Flex Fee" system ensures that appropriate fees are always charged by enabling the ongoing maintenance of fee schedules and valuation tables. CityView supports flat, incremental, percentage and range percentage-based calculations. Fees will be automatically calculated, and business rules will automate which fees get added to each application. If CityView Cashiering is being used, fees can be configured so that payment amounts will be distributed to appropriate general ledger accounts based on the fee definition.
The system should provide the ability to duplicate an existing permit application and all associated information to a new permit application at a different location (without manual rekeying of the data)	Yes	CityView Cloning option is used to copy an entire application one or more times, or only specific parts of the application, as appropriate.
System must have the ability to track and ensure contractors have appropriate licensing before allowing them to apply for permits. Describe how the software manages contractor information.	Yes	CityView includes contractor validation. There are two methods of automated contractor validation: General Validation - This will validate for this issuance for every Licensee every time they are added to an application, regardless of type. This setting can be used for Bond, Workers Compensation, Liability, or similar issuances that may be tracked for every contractor, regardless of trade. It should not be used to track specific issuances for specific contract types. Specific Validation - CityView can also be configured to check for specific issuances for

		specific permit types (e.g. Plumber's License for a Plumbing permit, etc.). This method is used to validate the contractor's trade permits against the type of work they are doing. This method will check when you add the contractor as a contact (assuming permits were added for the application type by default) and when you add permits to the application.
System must be integrated with an ePlan review software. Our preference is BlueBeam integration. Please describe how the permit software integrates with an ePlan review software.	Yes	CityView's Electronic Plans Review solution combines the exceptional submittal, approval routing, version control and workflow capabilities of CityView with the capabilities of Bluebeam Revu, so you can circulate, mark up and review documents, plans and construction drawings. CityView is a Bluebeam Alliance Partner with a fully integrated EPR solution with Bluebeam since 2013.
Based on classification, permits must meet criteria before permits are issued including fees being paid and reviews completed. How is your system configured to allow permits to only be issued after meeting this criteria?	Yes	Through workflow and business rules. For example, permits cannot be advanced in the workflow until fees are paid unless a supervisor with appropriate security advances the application forward. Other examples include conditions can be set as part of the planning process and a permit related to the planning application cannot be issued until the condition is satisfied.
System must allow for customized Permits. We currently issue permits from different departments based on permit classification. Describe the process to create customized permits.	Yes	Through workflow, business rules and attribute field groups. Attribute field groups (or AFGs) are logical groupings of Attribute Fields that display together. For example, a number of different data entry fields that are only pertinent to Septic Permits. There is no point in having all those fields displayed on the Permit Application screen all the time because they will be left blank for other application types. You would only want them to appear when the Permit Type is set to "Septic" and display them together with a logical heading to identify them as fields relating specifically to septic permits.
Does system allow for customized Certificate of Occupancy?	Yes	Most documents in CityView are Word templates. The CityView MS Word Add-in allows users with designated "configuration" rights to modify and create letter templates for use within the CityView business processes. This Add-in is a rich editing environment allowing users to work in a product that they are already very familiar with: Microsoft Word. CityView workflow generates these templates and the

		Certificate of Occupancy can be modified using Word.
Does your system track bonds? Can cash bonds be accepted and refunded through your system?	Yes	The system can track bonds. Cash bond payments can be accepted in the system. The refund process is also possible but additional details are needed to fully agree with the requirement.
<b>Inspections:</b>		
Is a user able to schedule inspections online and send inspection requests to specific inspectors based on zones and qualifications, and/or to an 'in box' where inspections can be assigned by staff?	Yes	Yes, users can request inspections using the CityView Portal. Inspections are assigned based upon City business rules (inspector qualifications) and spatial (zones). Inspections can also be assigned manually if so desired.
Describe how your system schedules inspections. Can inspections be re-assigned?	Yes	See above on scheduling inspections. Yes, inspections can be re-assigned either individual or in bulk.
Is there a calendar scheduling option for inspections? Can we customize it to remove available inspection times when inspectors are out of the office?	Yes	CityView has a MS Exchange Extension that allows inspectors to block times when they are not available for inspections.
Can users make and edit inspection checklists as needed?	Yes	
Are customers or users notified by text or email of inspections scheduled, accepted, completed, etc?	Yes	
Can correction notices be automatically generated and emailed to users upon inspection completion?	Yes	
Is there a route mapping option to create the best route for inspectors?	Yes	
Can inspections be automatically assigned based on zone, qualifications, etc?	Yes	See response above.
Can inspections be automatically assigned to the same inspector that was there previously? Especially for re-inspections?	Yes	
<b>Projects:</b>		
Does the system provide automated system to generate email, letter or text/SMS form notifications in mass? Example: Automatically send email to all stakeholders with results of public hearing.	Yes	
System must be integrated with an ePlan review software. Our preference is		CityView's Electronic Plans Review solution combines the exceptional submittal, approval

<p>BlueBeam integration. Please describe how the permit software integrates with an ePlan review software.</p>		<p>routing, version control and workflow capabilities of CityView with the capabilities of Bluebeam Revu, so you can circulate, mark up and review documents, plans and construction drawings. CityView is a Bluebeam Alliance Partner with a fully integrated EPR solution with Bluebeam since 2013.</p>
<p>System must be able to calculate fees based on multiple criteria. Explain how fees can be configured.</p>		<p>CityView's "Flex Fee" system ensures that appropriate fees are always charged by enabling the ongoing maintenance of fee schedules and valuation tables. CityView supports flat, incremental, percentage and range percentage-based calculations. Fees will be automatically calculated, and business rules will automate which fees get added to each application. If CityView Cashiering is being used, fees can be configured so that payment amounts will be distributed to appropriate general ledger accounts based on the fee definition.</p>
<p>Projects can go through several different review processes. Can a group of review steps be added as needed during the review process? Provide details on how the reviews are configured and applied to project types.</p>	Yes	<p>Reviews are assigned based upon application type but can also be assigned based upon spatial data, i.e., historical district. Review steps can added on the fly, too, as needed.</p>
<p>Describe the reporting options for the Projects module.</p>		<p>CityView provides out-of-the-box reports for the Project module, as well as a user-friendly reporting tools (CityView Reporter and ad hoc queries), and the ability to link SSRS reports to the users' catalog that allows the City staff to develop any necessary reports needed. Out-of-the-box reports are customizable by the City.</p>
<p><b>Licensing:</b></p>		
<p>System must be able to calculate fees based on multiple criteria. Explain how fees can be configured. Can penalties for late payments be applied?</p>		<p>CityView's "Flex Fee" system ensures that appropriate fees are always charged by enabling the ongoing maintenance of fee schedules and valuation tables. CityView supports flat, incremental, percentage and range percentage-based calculations. Fees will be automatically calculated, and business rules will automate which fees get added to each application. If CityView Cashiering is being used, fees can be configured so that payment amounts will be distributed to appropriate general ledger accounts based on the fee definition. And yes, penalties or late payment fees can be applied.</p>

System must allow for customized notices and licenses. Describe the process to create customized forms for licensing.		Customized forms based upon classification are created through attribute field groups and business rules. Notices are managed using CityView's MS Word Add-In.
Based on classification, licenses must meet criteria before licenses are issued including fees being paid and reviews completed. How is your system configured to allow licenses to only be issued after meeting this criteria?		Through workflow and business rules. Licenses cannot advance (be issued) in the workflow until reviews are completed and fees are paid.
Does renewal process create new license record based on current year license record?	Yes	
Describe the renewal process.		
Can the business opt for emailed notices instead of paper notices?	Yes	Yes, many CityView customers see close to a 100% of renewals take place online. Notices are emailed rather than printed.
Can the business complete a questionnaire online?	Yes	
Is business notified through email or online the status of the renewal?		They are emailed but the information is available online, too.
Can the business print license online once renewal is complete?	Yes	
Can the business request vehicle permits online?	Yes	
Does system keep track of bonds held by businesses? Can expiration letters be sent to businesses based on expiration date?	Yes/Yes	
Describe the reporting options for the Licensing module.		CityView provides out-of-the-box reports for the Licensing module, as well as a user-friendly reporting tools (CityView Reporter and ad hoc queries), and the ability to link SSRS reports to the users' catalog that allows the City staff to develop any necessary reports needed. Out-of-the-box reports are customizable by the City.
<b>Code Enforcement:</b>		
Does the system have the ability to accommodate user-defined document templates for City-identified case types?	Yes	The CityView MS Word Add-in allows users with designated "configuration" rights to modify and create document templates for use within the CityView business processes. This Add-in is a rich editing environment allowing users to work in a product that they are already very familiar with: Microsoft Word.
Does the system have the ability to print notice letters or violation hangers in the field listing specific code violations,	Yes	Yes, to all of the questions. Printing typically requires a Bluetooth printer in the field.

impending actions/dates, etc? Can these notices be electronically signed and printed from a mobile device? Can they be emailed?		
Describe the reporting options for the Code Enforcement module.		CityView provides out-of-the-box reports for the Licensing module, as well as a user-friendly reporting tools (CityView Reporter and ad hoc queries), and the ability to link SSRS reports to the users' catalog that allows the City staff to develop any necessary reports needed. Out-of-the-box reports are customizable by the City.

Describe the technical options available for the software platform:

Requirement	Meets Requirements Yes / No	Comment
Solution Platform: Are you proposing an in-house hosted or cloud solution? For either solution, production and test environments are required. If in-house solution, then what are the server requirements for hosting your solution? (# of servers, types of servers, performance requirements, etc)		We are proposing an in-house solution so the City can take advantage of the Software for Life program that Harris offers to current customers. An option to host in the cloud is available. See our separate Price Proposal.  For technical details please refer to Section 3.1
What Operating Systems are required/supported?		For technical details please refer to Section 3.1
What are the estimated storage requirements?		For technical details please refer to Section 3.1
What is required to support the outward facing services?		For technical details please refer to Section 3.1
<b>Cloud-Based Solution:</b>		
What are the optimal bandwidth recommendations for end-points running your solution?		For technical details please refer to Section 3.2
Where is your cloud solution hosted?		Pittsburgh, PA. Expedient is CityView's hosted provider.
Will our data remain on U.S. soil or possibly hosted in other countries?		City data will remain on U.S. soil.
How often are systems/services unavailable?		Minimal. We make best efforts to maintain uptime during Business Hours, as defined in our support and maintenance agreement.  During regularly scheduled, software and platform update cycles, it is expected that the application can be down for a few hours per month. These updates, to improve functionality,

		security and stability, will be scheduled during off hours.
Who is responsible for maintaining the upgrades to your data information system, the server operating system(s), database maintenance, server health, security settings? In other words, do you offer a full SaaS hosted solution?		With our hosted solution, CityView includes for two (2) upgrades per year. The City will not be required to download and install upgrades. Expedient maintains infrastructure including operating system, database health, server settings and security. Yes, we offer a full SaaS hosted solution.
How would city IT staff access the database(s) for reporting and query purposes?		CityView provides out of the box reports for each module, as well as a user-friendly reporting tool (CityView Reporter and ad hoc queries), and the ability to link SSRS reports to the users' catalog that allows the City staff to develop any necessary reports needed. Reports are customizable. For cloud based/hosted clients, CityView provides a read-only replication for reporting that is synchronized every 10 minutes. A full database backup is provided once a month. Additional options can be negotiated at additional costs.
Will the production data and all backups remain within the borders of the United States of America? If not, in what other countries will the cloud-hosted data and backups be stored?	Yes	Yes, all data remains in the US.
Provide information on your backup strategy, redundancies, and disaster/recovery		For our hosted solution, Expedient does all the backups and restores of the data for CityView and we then apply it to the City's environment. (nightly full backups of the City's environment are taken) Backups are not provided to the City except in accordance with the terms of the subscription agreement.  CityView knows the importance of a Business Continuity Plan and has experience returning customers to normal operations after a severe incident. Priority goes to the Production environments, restoring essential services such as phone, email, etc. Communication is crucial.
What security measures and precautions are in place to protect our cloud-hosted data from a Cybersecurity attack such as ransomware?		All CityView endpoints have malware, antivirus, and security policies in place to limit CityView users network and file access internally, limited to authorized devices. All data is encrypted. A comprehensive patch process ensures endpoint machines acquire necessary security updates. Our IT teams ensure endpoint machines can be

		readily quarantined and isolated if necessary. Please see section 3.2.21 for additional details regarding CityView hosting by Expedient.
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Please describe system requirements:

Requirement	Meets Requirements Yes / No	Comment
Does your software work in a Windows 10 environment?	Yes	
Is the system browser based or do endpoints require a client for your solution?		Browser based using HTML5 technology.
Describe your software licensing model. Is your software licensed per workstation, per user, concurrent licensing, no separate licensing required, etc.?		Per concurrent user and modular (functionality based) for premise. We have included a hosting option should the City desire to move the system to the cloud.
The City of Billings is requiring that software uses Microsoft SQL Server for its database. Does your software meet this requirement?	Yes	
How is the data on your system secured?		<p>CityView Security is threaded throughout the application stack and technologies. Security is predominantly role-based and can be inherited as well as controlled at the user-level. Security can be applied to application objects such as Data Entry Forms, Reports, Searches, Filters, etc., as well as data through the use of Database Connections. Record security can also be applied and overridden, e.g. by a supervisor user.</p> <p>CityView has been integrated with Active Directory/LDAP since 2003, providing single sign-on. It is very straightforward to enable LDAP authentication in CityView. Users in Security will have the exact same login ID as their Active Directory login name; and, in turn, that same ID will be used when configuring the list of "employees" on the Employee Maintenance This allows you to store additional information about the employee but still have it tie back to the login credentials, so that you can do things like determine the department, supervisor, or hourly rate of the currently logged in user.</p> <p>Virtually every feature in CityView can be secured. The out-of-the-box organization roles</p>

		<p>define appropriate access based on the user's role(s). Custom organization roles can also be defined that inherit rights from the out-of-the-box roles but provide better mapping onto your Active Directory "groups".</p> <p>CityView also has the concept of Record Security, whereby it is not so much the user or the type of data that is being secured but rather the data is being secured once it is in a particular state. For example, you would normally want Code Enforcement officers to be able to modify the details of a case, but perhaps once that case is "Closed", you want it to be secured from any further edits. Similarly, maybe you want to make sure that only certain people can see the name of the Complainant on a case, but anyone is allowed to see any other Contacts listed on that case.</p>
Does your system collect and/or store any Personally Identifiable Information (PII)? If yes, what security measures are in place to protect this data?	No	No, CityView does not store credit card or SSN information. For credit card payments we integrate to PCI compliant processors.
What versions of Microsoft Office suites do you recommend and/or support? MS Office 2016, MS Office 2019, O365 G1, O365 G3, other?		CityView Word Add-In and Outlook Add-In work with all of the version listed.

Describe how your software interfaces:

Requirement	Meets Requirements Yes / No	Comment
The City of Billings currently uses CitySuite by Harris for its financial system. It is required that a Community Development software must interface all financial transactions to it including all payment, charge, and refund transactions. Describe how this process is identified and accomplished.		CityView will use a batch export or an API integration. We are sister company to CitySuite by Harris and will work closely with Harris ERP staff to ensure the best integration possible.
Do you have built interfaces to other customers using CitySuite Financials, Accounts Payable for refunds, and CIS for Accounts Receivable?	No	
The City of Billings currently uses Questys as the enterprise content management system. Attachments that are stored in software need to		CityView has a current integration to Questys. It is an out-of-the-box integration using our DMS framework. We have included in our proposal.

<p>automatically be stored in our document imaging solution as well. In addition, we need to be able to access these documents from the Permitting module. Describe how your software would integrate to it.</p>		
<p>The City of Billings is fully invested in GIS and expects a fully integrated GIS solution. If GIS is not directly integrated with Community Development software, explain how addressing, ownership, and parcel information from our existing ESRI addressing/parcel information would update/synchronize to the software.</p>		<p>CityView has an API integration to Esri ArcGIS. We treat mapping/GIS data as first-class data in the system.</p>
<p>Provide costs for developing and maintaining needed interfaces to CitySuite and Questys.</p>		<p>Estimated cost for an integration to CitySuite is \$10,900. Questys is an out-of-the-box integration and is maintained as an integration in our document management framework.</p>

Please describe product implementation:

Requirement	Meets Requirements Yes / No	Comment
<p>Project Management – Describe the implementation methodology including analysis, requirements definition, key milestone, system testing, system launch and the estimated duration of the project.</p>		<p>Please refer to Section 4 for CityView's Implementation methodology including project management.</p>
<p>Key Project Team members should be listed in the proposal narrative and with accompanying resumes.</p>		<p>Please refer to Section 1.2 and Appendix A.</p>
<p>Occasionally, people do not work well together when expectations or methodology are not aligned for various reason. What is the escalation path if the City requests different team members for the project management or implementation team?</p>		<p>A clear escalation procedure and path is defined and agreed to by both parties. CityView escalation levels are presented in the order listed below:                      1. Project Manager                      2. VP, Professional Services                      3. Senior VP, Customer Success                      4. Executive Vice President</p> <p>Suggested City escalation levels are as follows, in order:                      1. Project Manager                      2. Steering Committee</p>

		3. Executive Sponsor
City Roles and Responsibilities – Describe the resources needed from the City during installation, configuration, and testing.		Please refer to Section 4.2.2 and 4.2.2.1
Training - Describe the training needed including the training format (online, classroom, instructor led, train the trainer) and time requirements for each type of training.		Please refer to Section 4.4
Integration to other software systems - How does your company go about defining the interfaces required to meet our needs and providing a scope that includes initial and on-going costs for these interfaces?		<p>The CityView Implementation approach focuses on refining a comprehensive, fully featured product designed from industry best practices, to align with your business. This is an efficient process with the configuration tools that have become the hallmark of CityView's offering for 40 years.</p> <p>During implementation, Step 1 - Process Mapping, interface requirements will be defined. The main deliverable at the end of the Process Mapping step is the Scope Document. The Scope Document will reference, where applicable, documentation that needs to be included in the implementation, such as RFP functional requirements, responses to CityView Administrator that were provided by CityView and completed by the City, data mapping documents, and interface design documents.</p>
A test environment is required. Describe how your test environment functions and how frequently the test database is refreshed with production data.		A test/training environment is installed at the customer site during the implementation, primarily for purposes of testing the hardware infrastructure but also to provide a sandbox database for customer use if desired and as training for the customer administrators. This test database is overridden with the production-ready environment prior to go-live. As part of the go-live efforts our support team ensures the customer has at least a test environment and a production environment installed and configured. No additional costs are incurred based on the above environments.
What is your anticipated timeline for implementation?		Approximately 18 months. Specifically, our project manager works with your project staff to develop an overall project plan, including time schedules, application implementation priorities, and any key issues identified that may affect the project schedule or progress.

Conversion of current data into new solution:

Requirement	Meets Requirements Yes / No	Comment
Describe the process your company would go through to import our existing data into your proposed solution.		Please refer to Section 4.3
Please let us know if your company has any experience in converting data from our existing Community Development Software from Harris into your proposed solution.		<p>As a sister company to Harris ERP, we will have relational access for converting data that no other vendor will be able to duplicate.</p> <p>CityView has 40 years' experience implementing solutions for municipalities throughout the US and Canada and virtually every one of them has included a conversion of legacy data into the CityView system from a large variety of legacy formats. During this time we have experienced probably every permutation and combination of legacy data retention possible.</p>

Maintenance and Support

Requirement	Meets Requirements Yes / No	Comment
Describe the support provided after the installation is complete for both an on premise and cloud-hosted solution		Please refer to Section 5
What types of Customer Service are available (help desk/online submission of service request)		Both help desk/online submission of service requests are available. Please refer to Section 5
Tell us about the Service Level Agreements/Response Times		Please refer to Section 5
What options do we have for Problem Escalation?		Please refer to Section 5
What are your Support Hours?		6:00 a.m. and 6:30 p.m. MDT on regular business days
How frequently does the software get updated?		One release every six to ten weeks; approximately 10 new versions of CityView per year. New releases of CityView are developed using our internal Research and Development department. Each new release of CityView contains all the features included in previous releases. All releases are supplied as part of your mandatory Annual Software Maintenance agreement (ASM).

Are there release notes describing functional updates when a new release is provided?	Yes	Yes through CityView Connect. Please refer to Section 4.5 for sample documentation.
If custom interfaces are built to other software systems,		
Does the Service Level Agreements/Response Times cover the custom interfaces?	Yes	
Is there a charge for reviewing, testing, and possibly updating the interface when your solution is updated? Explain the process.		This is covered under your Annual Software Maintenance agreement.
Is there a charge for reviewing, testing, and possibly updating the interface when the other solution is updated? Explain the process.		Additional costs may apply.
What sets you apart from other Vendors?		Please refer to Section 5.1