ATTACHMENT A

Corona Police Department CAD / MDC / RMS Replacement Project

Scope of Services and Deliverables

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SCOPE OF SERVICES AND DELIVERABLES

1.1 Background Information

1.1.1 The Community

The City of Corona, originally named South Riverside, was founded at the height of the Southern California citrus boom in 1886, and is advantageously situated at the upper end of the Santa Ana River Canyon, a significant pass through the Santa Ana Mountains. The town of Corona was once the "Lemon Capital of the World." A museum there presents the lemon's former role in the local economy. The City derived its name (and its nickname, *The Circle City*) from the curious layout of its streets, with a standard grid enclosed by the circular Grand Boulevard, 2.75 miles in circumference. The City currently supports a population of over 161,000 residents, and is approximately 38 square miles.

The City's Public Safety Communications Center located at Police Headquarters (730 Public Safety Way, Corona, CA 92880) provides a central service point for responding to both emergency and non-emergency calls, with emergency calls taking preference. The Center consists of 21 full-time Public Safety Dispatchers, 2 part-time Public Safety Dispatchers, and 4 Public Safety Supervisors each of who are committed to providing exceptional service to the public.

The City's Public Safety Communications Center received 295,000 phone calls, including 120,000 calls for service involving the dispatch of Police and Fire Department personnel. The Communications Center is equipped with an enhanced 911 emergency phone system, a Computer Aided Dispatch (CAD) system, and Radio consoles to assist with its daily operations.

1.1.2 Sizing Information Summary

The following information is being provided with the sole purpose of assisting the Consultants in sizing the correct solution within their proposals.

Public Safety Employees	Police	Fire
Sworn Employees	162	97
Volunteer Employees	49	8
Auxiliary Officers	0	0
Civilian Employees	F/T– 69/P/T-36	10
Total Employee Count	316	115
CAD Access Equipment	Police	Fire
Dispatch and Call Taking	10	
Mobile Computers	75	21
Desktop Computers w CAD Access	53	0
Desktop Computers w PD RMS Access	249	0
Public Safety Stats (Estimated)	Police	Fire
Calls for Service	125,500	
Dispatched Responses, Police & Fire	89,725	12,825

1.1.3 Current CAD & Police RMS System

The City current CAD, RMS and Mobile is a West Covina system that has been in place since 1989. The CAD system includes a mobile client installed on both Police and Fire Mobile Data

Computers (MDC). The MDC's are equipped with internal modems providing GPS data to the West Covina system.

Although the City intends to evaluate the Consultant's total solution for CAD, RMS and Mobile, existing subsystems may require integration, in the event the Consultants' solution does not meet the functionality requirements. These subsystems include: a separate property and evidence application called EvidenceOnQ by FileOnQ, and a citation and accident reporting application called Crossroads.

1.2 Project Goals

With a new CAD and RMS, the City's ability to prevent, respond to, manage, and analyze situations threatening the safety and property of citizens, and provide other critical emergency services resources will be significantly enhanced. An integrated Police and Fire CAD and PD RMS System will lay the foundation for intelligence led policing; enhanced criminal justice; informed fire suppression and emergency medical services and overall strategic public safety resource deployment.

The system must advance the overall mission, goals, and objectives of the City by making public safety personnel more effective in preventing, combating, and responding to public safety matters through strategic resource deployment.

The City is aware of current industry technologies and is seeking a balance between mainstream and state-of-the-art technology. The City wants to employ solutions that will prolong the life of the new system and postpone the need for replacement. With this in mind, the City envisions that the system will be based upon current, proven technology that is derived from current industry and City standards.

1.2.1 CAD, RMS and Mobile Systems Objectives

The system must be able to perform so that an operator will not have to wait for critical information and will rarely have to wait for routine information.

The system must utilize an easily understandable user interface, tailored to each specific agency (Police and Fire) that optimizes efficiency and the viewing of critical data in real time. Users must be able to filter information per their preferences utilizing the mouse, hot keys and/or command line functionality. All critical functions must be accessible via the keyboard, as mousing between entries is discouraged.

The system must be easily configurable and permit the System Administrator to create, update, and manage the key records and tables, dialog boxes, status monitors, and masks, as well as create, modify, and, print reports.

The proposed solution must adhere to City's technology standards. The standards are consistent with those being adopted by public safety entities throughout the country, as well as with the interoperability standards adopted by the US Federal government.

The system must be in compliance with Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §792).

The City is increasingly adopting the .Net platform for new development and interfaces utilizing XML-based web services. Thin client applications are preferred. This consideration is critical for new and upgraded applications in the public safety arena where appropriate.

The underlying IT Infrastructure (Network, Computer, Storage) must be built on the WINTEL Platform (current version minus one), the database must be Microsoft SQL Server, and capable of virtualization with VMware's ESX hypervisor platform. The underlying storage tied to the hypervisor will be a SAN. The option to utilize cloud based storage should be on the roadmap if not currently supported.

1.3 Services

1.3.1 Project Management Services

Major City information technology projects, including the CAD, RMS and Mobile Replacement project, are managed by Consultant specific subject matter experts (SME) and project managers (PM) reporting to the City Project Manager as the primary lead in this project. Project sponsorship is through business units and City resources for the project are staffed and managed through a matrix management project structure. A project steering committee will oversee the CAD, RMS and Mobile project. The City expects significant project management activities to include, but not be limited to, Project Scheduling, Risk Management, Cost Management, Change Control Management, Communications Management and on-site meetings as (and when) required.

Prior to contract signing, the Consultant will prepare and submit to the City Project Manager for approval a Statement of Work to include;

1) Draft proposed schedule,
2) All features of Consultants base system that are available in the base system price, but not included in the City's functional and technical specifications and
3) Final Implementation Plan.

1.3.2 Project Schedule

Consultant must provide draft project schedule in Microsoft Project format utilizing a Work Breakdown Structure ("WBS") format including resources and milestones. The intent of the City is to develop and maintain a shared project schedule that includes all Consultant and City tasks and activities. Implementation schedule should incorporate the major subproject implementation phases such as CAD, RMS, Mobile, etc.

1.3.3 Consultant Project Staffing Plan

Given the high-profile nature of this project, the City expects best in class project management services from the Consultant. The City expects the Consultant will work closely in conjunction with City's Project Manager. The City will only accept Consultant personnel who have significant and relevant experience with the Consultant's CAD, RMS and Mobile system and can show a successful track record at locations of similar size and complexity as the City.

Consultant shall:

1) Identity proposed staffing resources and level of effort for each major task. Consultant must also include an organization chart for proposed project personnel, including proposed sub-contractors.

2) Describe expectation of City staffing resources and Level of Effort for each major phase, including expected skill set needed to successfully complete each task.
3) List key personnel that will be assigned to the project.
4) Provide resumes of all key staff that provides sufficient information to allow the City to evaluate their capability and qualifications to perform proposed tasks.
5) Describe roles and tasks for all key personnel for each major phase of the project,
6) Identify whether this is their major assignment, and a projection of other assignments they may be working on during the implementation period.
7) Describe for all key personnel what percentage of time will be on project.
8) Provide information regarding who will be on site for each major phase of the project, and who will be remote.
9) Provide an organizational chart of all personnel proposed for the project.
10) Provide the Consultants Communications Plan that will be used for this project.
11) Provide the Consultant's escalation process of issues.
12) Describe facilities and equipment that the City is required to provide on-site staff.
13) Submit all Consultant personnel assigned to work on-site on the CAD, RMS and Mobile project to undergo a criminal history check. Off-site personnel may also be subject to a criminal history check. Please note that arrangements for required criminal history checks should be made in advance with appropriate City personnel. The City reserves the right to reject any personnel proposed by the Consultant for any reason. All key personnel will be required to sign a confidentiality agreement for access to sensitive data.
14) Ensure that support personnel proposed have the necessary level of training and experience with the application suite to ensure that the City is receiving expert-level support. The Consultant may be requested to provide the City with a listing of all certificates, training courses and other relevant evidence to document the level of expertise of proposed support personnel.
15) Understand that the Consultant's Project Manager is expected to coordinate and participate in all activities related to Consultant demonstrations, if shortlisted.

1.3.4 Project Reporting

The Consultant shall participate, at a minimum, in a bi-weekly Project Meeting to report progress toward contract deliverables, update status from the previous reporting period, and advise current objectives, problems or delay issues, proposed corrections and other relevant information.

1.3.5 Project Status Reports

The Consultant's Project Manager will provide, at a minimum, bi-weekly project status reports detailing relevant information to the City's Project Manager.

1.3.6 Implementation Management Plan

The City uses the Project Management Book of Knowledge ("PMBOK") as a guide for implementation of all projects. Please provide how the Consultant's implementation planning activities incorporate all the major PMBOK phases: Initiation, Planning Execution, Monitoring & Control, and Closing. For each phase, Consultant shall:

1) Provide the Consultant's process to complete each major phase (i.e. CAD, RMS, Mobile, AFR, etc.);

2) Provide the Consultant's methodology to prepare servers (i.e., completed on-site or at the Consultant's location);
3) Provide the Consultant's Deployment plan of all phases and why this methodology is being proposed;
4) Provide the Consultant's Risk Management plan that will be used to ensure successful implementation of all phases;
5) Provide the Consultant's Quality Management plan that will be used to ensure successful implementation of all phases; and
6) Provide any Change Management solutions provided by the Consultant that are a component of the proposal.

1.3.7 Acceptance Test Plan & System Migration Plan

The Consultant shall provide the City with draft test plans that include, but is not necessarily limited to the following:

1) Drafting a test plan for Corona staff;
2) User acceptance testing;
3) Product performance testing;
4) Interfaces testing;
5) Security testing;
6) Data conversion testing;
7) Hardware and network capacity testing;
8) Integration testing;
9) Load testing; and
10) Fail-over testing.

The City shall be responsible for conducting a final unit, subsystem, and system acceptance test that will include, but is not necessarily limited to, the following:

1) Testing all software components in accordance with published functions and features;
2) Testing all software components;
3) Testing all system software based on business scenarios;
4) Testing all system software based on user friendliness;
5) Testing of all contracted interfaces based on design and business scenario;
6) Parallel testing prior to cutover (if parallel processing is appropriate);
7) Security testing;
8) Data Conversion testing;
9) Testing based on business scenarios;
10) Hardware and network capacity testing;
11) Integration testing;
12) Load testing; and
13) Fail-over testing.

The Consultant shall review the City's additions to the test plans for accuracy and completeness. The City reserves the right to revise the test plans if reasonable notice is given to the Consultant. The City maintains sole authority to certify the successful completion of all tests performed by the Consultant on the proposed system.

1.3.7.1 Acceptance Test Process

The acceptance test process shall include three phases: The Acceptance Test Period, the Reliability Test Period, and the Final System Acceptance. If at any time during the acceptance-testing period, the system reveals any major defects or several minor defects, the process shall be terminated and the Consultant shall resolve the outstanding issues. Once all the issues have been addressed, the Consultant will recommence the Reliability Test Period. The Consultant shall describe its trouble reporting, priority, and severity plan for this process. The Consultant shall describe responses to failed user acceptance tests, including when the testing must be held in abeyance, and recommenced in its entirety from the beginning as may be required by the City.

1.3.7.2 Acceptance Test Period

The Consultant's software will be delivered to the City accompanied with written documentation stating the system is ready for testing and a draft acceptance test plan ("ATP") for the City to use in its acceptance testing process. The City will review the written draft of the testing plan and schedule the installation of the software within the City test environment. The acceptance test period will begin when the City, along with the assistance of the Consultant, first performs all tests in accordance with the ATP and successfully completes the tests. If major defects or numerous minor defects are found during the acceptance testing, the tests shall be terminated and the Consultant shall resolve outstanding issues.

Once all issues have been addressed, the Consultant will recommence the ATP process, in its entirety, from the beginning as may be required by the City.

1.3.7.3 Reliability Test Period

After the successful completion of the cutover period, there shall be a minimum of thirty (30) day reliability testing during which the newly installed system will be in production and its performance monitored. During this period, the system must perform fully without degradation of any kind for the Reliability Test to be satisfied. If any major defects or numerous minor defects are discovered, the Reliability Test period shall be terminated and the Consultant shall resolve all issues. Once all issues have been addressed, the Consultant will recommence the Reliability Test process, in its entirety, from the beginning as may be required by the City.

The severity levels pertaining to the system are defined as:

Severity Level 1 (S1) – Critical system errors, which are defined as: Loss of Data, Corruption of Data, or Loss of Productive Use of the System. In the event this type of error occurs, the City will immediately notify Consultant and the ninety (90) day Reliability period will be cancelled. Consultant personnel shall promptly resolve the problem at no additional cost and a new ninety (90) day Reliability period will begin. Once the system operates for 90 consecutive days without a Severity Level 1, the ninety (90) day Reliability test will be completed.

Severity Level 2 (S2) – Critical errors exist when the primary purpose of the Consultant's CAD/Mobile software is compromised and productive use of the system is significantly impacted. A procedural workaround is either not immediately or readily available or has

been proposed and has been found to be unacceptable by the City. In the event this type of error occurs, the City will immediately notify the Consultant and the thirty (90) day Reliability period will be suspended. The Consultant's personnel shall promptly resolve the problem at no additional cost to the City, and the ninety (90) day Reliability period will re-commence at the point where it was suspended.

Severity Level 3 (S3) – Non-critical errors which are defined as incomplete operation of system where a procedural workaround is readily and immediately available, and productive use of the system is not significantly impacted on software or operations. In the event this type of error occurs, the City will immediately notify the Consultant, but the ninety (90) day Reliability period will continue. If possible, the Consultant shall resolve the problem during the ninety (90) day Reliability period, but if necessary, resolve in a future bug fixes release of the product.

Severity Level 4 (S4) – Cosmetic errors which are defined as configuration issues that can be corrected by the City, data integrity issues that must be addressed by the City, Help File documentation errors, or enhancements that can be made in the future to the presently installed system. Severity level 4 defects will be remedied within a future software fixes release.

If, during the thirty (30) day Reliability period, the system is deemed non-operational because of S1 or S2 errors, the Warranty Period will cease. The City may choose to stop use or use whatever operational portion may be available. The Warranty Period will restart upon the resolution of the S1 or S2 error.

Any cost for the Reliability Testing phase shall be broken out separately on the Price Workbook.

1.3.7.4 Final System Acceptance

At the successful completion of the Reliability Test period, the City shall issue a conditional acceptance certificate. At the end of the successful completion of both the Reliability Test period and the data conversion, the City shall issue the final acceptance certificate.

The Consultant shall demonstrate through an acceptance process performance (stress) test that the system performs as required in the City's technical environment and that the system meets or exceeds the City's functional specifications. The stress test should include all LAN connected applications. The final ATP should use the City's approved data and include report generation.

The final acceptance test shall exercise all functionality and components successfully.

The Consultant shall test backup and recovery features successfully.

The failure of any specific portion of a test may require that the entire test be rerun, not just the failed portion of the test.

1.3.7.5 Operational Migration Plan

The migration from one CAD, RMS and Mobile system to a new one can present significant threats to the health and safety of the public and first responders if problems arise. The City CAD cutover will take place in its existing Communications Center and will require an extraordinary level of coordination and staging to avoid impacting existing operations.

Cut-over activities shall be approved in advance by the City. A cut-over working group composed of City, CAD, RMS and Mobile Consultant and other relevant personnel will be formed to develop a detailed migration plan and the actual execution of the CAD, RMS and Mobile system cut-over.

1.4 General Software Requirements

1.4.1 GIS Requirements

The City uses an ArcInfo GIS database. Consultants must interface with this database to develop the geo-file required for the proposed systems. The interface should be designed to load an initial file from the City's GIS and to also periodically enable updates of CAD, RMS and Mobile system's geo-file from the City's GIS database. The Consultant must provide the tools necessary for City GIS staff to perform the geo-file creation and upload process.

1.4.2 Browser Based Functionality

The proposed solution must include browser based functionality. This functionality allows authorized staff to access the system from non-dispatch or call taking terminals. The browser based functionality must include:

1) The ability to see all CAD activity in real time;
2) The ability to see the CAD GIS map, including available units, units on calls, calls holding, active calls, etc.;
3) The ability to send and receive messages within the system, including individuals, units, dispatch positions, call taking positions, etc.; and
4) The ability to access information within the system, including all call information, all unit information, all timestamps, all AVL/GPS data and routing information to any location.

1.4.3 Data Purging

The system must have a purge facility that will off-load data from the servers for archival storage and access. Purging must be administrator-configurable by multiple parameters. All purges must be subject to strict audit tracking and reporting and must occur while the system is fully operational, without degradation of performance.

1.4.4 Back-up and Recovery

The servers must have an appropriate automated back-up capability for system and application back-up and transactional level recovery. Back-up media shall be in a format suitable for convenient off-site storage. The system must provide differential back-up schedules for various system components and be configurable by the system administrator. Incremental and full back-up capabilities must be provided. All back-up and recovery processes must be subject to auditing and reporting. System back-ups must be accomplished without taking the application out of service and without degradation of performance or disruption to operations.

The City desires to utilize its existing backup system to perform all necessary backups providing for full-restore should an event occur that requires it. A full restore means that all primary and ancillary systems that are being backed up are restored and fully functional. If specific backup parameters are required by the Consultant, please describe those requirements in detail. If the proposal includes backup alternatives, it is required to specify the system, cost, and methodologies that will be used to accomplish the back-up and recovery of the system. The City will be utilizing secure cloud storage for backup where appropriate.

The City's current Back-Up and Recovery Software and process is more fully described in the "City Technology Standards" being provided as Attachment "D" within this RFP.

1.4.5 CAD Stand-Alone Mode

The CAD workstations must be ability to operate in a stand-alone, off-line mode in the event the CAD servers become unavailable. At a minimum, the system must provide the ability to track basic unit availability and status information in a standalone mode.

1.4.6 Automatic Update of Workstations/MDCs

All software updates to both desktop CAD and RMS workstations and MDC computer terminals must be accomplished through an automated network facility and not require a technician to perform a manual procedure on each workstation/MDC. This update utility must be configurable by multiple parameters, e.g., workstation type, and able to support the scheduling of update activities in batch and non-batch modes. A summary report is required, documenting the results of the update activity.

1.4.7 Data Integrity

The system must ensure the integrity of the data which it maintains. Interruptions in processing due to incidents such as aborted transactions, hardware failures, or network unavailability must not result in inaccurate or inconsistent data in the system. If data transfers occur, the system must provide a method of audit validation to ensure that all data sent was received in the target application.

1.4.8 Coding

The system shall be developed utilizing a current programming language such as .NET Framework, ASP.NET MVC, or other language acceptable to the City. The City requires Consultants to actively advance development technologies as provided by industry standards and not maintain any portion of the proposed solution with technology that is outdated, end of life, end of support, etc. The Consultant must disclose the programming language used in the proposed solution.

1.4.9 Scalability

Future requirements for regional cooperation and interoperability will only increase. Since this may result in the system being subjected to a greater than normal amount of traffic, the system must be able to scale up to handle the additional load without any performance impact, specifically on the CAD operations. Increased loads of up to 50 percent may be the result of temporary surges based on a major event. Also, the need may arise to permanently increase the standard capabilities of the system. The former will be handled by building in excess capacity over historical trends, the latter by seamlessly adding hardware and software

components to adapt to the new workload. Adding or upgrading hardware components must be accomplished without bringing the system down or negatively affecting its performance.

1.4.10 Flexibility

The system shall be able to retain its performance levels when adding additional users, functions and data. The solution functionality and associated business rules must be able to be configured with the use of applications or functions that do not require "code" modifications. The screens shall be highly configurable, providing ability to reposition and rename field labels, remove or "turn-off" unused fields, maintain data, and allow the addition of user-defined fields. The system shall provide the ability to create and/or modify business rules.

1.4.11 System Reliability/Availability and Access

The public safety mission requires consistent operations, at a minimum 99.999% up time. Routine maintenance or administrative procedures must not require system "down-time" or a re-start to take effect.

1.4.12 System Administration

The proposed solution must provide a suite of system administration tools to support the effective ongoing operation of the systems. The full suite of system administration tools shall be available to appropriate City personnel. System administration capabilities, at a minimum, must include the ability to:

1) Create and maintain user and group accounts;
2) Manage security (as described below);
3) Manage back-up and recovery processes;
4) Monitor and tune system performance;
5) Install and configure hardware;
6) Install and configure software/updates;
7) Interface with ESRI Web Services for updating CAD geo data;
8) Monitor and maintain interfaces;
9) Schedule procedures (staff, assignments);
10) Manage disaster recovery procedures;
11) Configure alerts;
12) Organize and maintain system documentation; and
13) Perform remote management.

The systems must allow the System Administrator to configure by jurisdiction, agency, or user group the display of all available information, including maps, status screens, event forms, call entry screen, dispatch screens, and pull down menus. Changes to one agency/jurisdiction/user-group configuration must not affect any other agency/jurisdiction/user-group configurations.

The System Administrator must be able to modify the layout and data elements displayed on all Consultant supplied forms and screen masks, and the ability to create macros or shortcuts for common user functions.

The System Administrator or other authorized user must also be able to add a report, macro, or function to the application menu and add new data elements to forms or report formats.

All system administration procedures must be supported by a detailed logging, auditing and reporting capability.

1.4.13 Database Administration

The full suite of database administration tools and capabilities for the system must be available to the City. These include, but are not limited to, the ability to:

1) Alter on-screen field attributes, i.e., positioning, labels, drop-down lists;
2) Specify edit and validation checks on fields;
3) Modify content of drop down lists; radio button lists, etc.;
4) Perform system diagnostics;
5) Monitor and tune database performance;
6) Perform database back-up and recovery;
7) Execute queries;
8) Download data directly into Microsoft Excel, Microsoft Access, and SQL Server format;
9) Support integration via web services;
10) Configure alerts; and
11) Log and archive all database activity.

Database imports and exports must be accomplished with minimal impact on system performance and must maintain the integrity of all relational linkages. Import/export tools must support both automated and ad hoc operations.

All database administration procedures must be supported by a detailed logging, auditing and reporting capability. Changes to one agency/jurisdiction/user-group configuration must not affect any other agency/jurisdiction/user-group configurations.

1.4.14 Security

A mission-critical application affecting the safety of the public, as well as the City's first responders, the system must be supported by robust security controls. Security considerations to be addressed minimally include: hardware and networks; application security; user identification and authentication; and multi-jurisdictional considerations.

Multiple firewalls, encryption, anti-virus software, intrusion detection, advanced authentication for remote users and LDAP authentication are all utilized within the existing City's systems. Software must support the City's virus scanning software.

All hardware implemented within the City networks must go through a security review and be certified by the City Information Technology Director for compliance with the City standards.

1.4.15 Security Requirements

The system/security administrator must have, at a minimum, the ability to assign different user profiles based on individual and group classifications and sub-classifications and assign differential access privileges. To protect Health Insurance Portability and Accountability Act data **("**HIPAA"), Criminal Justice Information ("CJI") and other restricted data, the System Administrator must have the ability to define security profiles down to the individual data field level. Profiles must support read-only access and selective read/write privileges. Security profiles must also be able to be assigned to individual devices such as workstations and printers.

State and Federal Security Standards: The proposed solution must meet or exceed security standards as required by the California Law Enforcement Telecommunication Services ("CLETS") and the Federal Bureau of Investigations ("FBI") Criminal Justice Information Service ("CJIS") Security Policy.

Secure Platform: Application and the Consultant must support deployment of host server and database security patches and service pack updates within one month of patch release (e.g., application running on Windows server Operating System ("OS") should not limit installation security patches on host operating system). Application and Consultant must support new operating system versions within one year of release. Application security vulnerabilities shall be remediated with the development, testing and timely release of security patches by the application Consultant within three calendar months of the vulnerability being identified.

User Authentication: The City standard for a single point of user authentication is Microsoft Active Directory ("AD"), using the Lightweight Directory Access Protocol ("LDAP"). The City standard for authentication is to allow properly authorized users to login just once on their computer and be able to access all approved applications during that active session.

Secure Authentication: All authentication activity occurring over the network should be encrypted using FIPS to ensure that logins and passwords are not transmitted in clear text. This includes using FIPS 140-2 (at a minimum) and administrator authentication activity.

Sensitive Data: Applications containing or hosting sensitive data, as defined by State of California or US Federal law or regulation, shall encrypt data at rest, using (at a minimum) FIPS 140-2, data in motion over the network and all authentication activity. Encryption algorithm used to encrypt data and authorization activity shall be industry standard.

Auditing and Logging: Application must log all security-related events including logon, logoff, data modification, data deletion, change in rights or permission levels, and the addition of data/information to the application. Logs must include the computer ID and user ID generating the activity, time of the activity, and details regarding the type of activity (e.g., logon, logoff or data details). System should support interoperability with centralized logging and Security Information and Event Management ("SIEM") technologies.

Compliance with Organization's Security Policy, Standards and Procedures - Application Consultants working directly on City-owned applications or from City facilities are subject to all City policies, standards and guidelines.

1.4.16 Application Security Coding Requirements

1) Parameter Manipulation: Applications shall be designed to ensure that parameter manipulation does not provide access to data or application functionality that the user is not authorized to see or use.
2) Input Validation: Sanitize all user input fields to ensure that cross-site scripting, SQL injection and other input related vulnerabilities are closed through secure application coding. Input validation should be performed on the server/application and not on the client devices.
3) Hidden Fields: System should not use "hidden fields" for Security.

4) Cookies: System should not rely on cookies to define security settings. Cookies must not contain or be used to obtain sensitive information.
5) Session Identifiers: If system uses session identifiers, they should be generated with unpredictable numbers and should contain enough key space to prevent unauthorized use or guessing of the session ID's.
6) Error Messages: System should handle system errors in an appropriate manner. Failed login attempts to the system should not generate detailed information about the failed login attempt (e.g., incorrect password or unknown user account). Other security related errors (e.g., file not found or permission denied) should generate generic error responses. Detailed error information should be written to secure logs so that developers and system administrators have access to error details required to address the error.

1.4.17 National Public Safety Standards

The US Federal government has taken the lead recently in developing standards for facilitating information sharing among local, state and federal first responders and emergency operations managers. The proposed CAD, RMS and Mobile applications must be in compliance and maintained to these standards at no further costs then that identified in an industry standard maintenance and support agreement.

Deviations from the architecture and standards may represent a barrier to the implementation of the City's public safety integration and interoperability goals and may be reviewed with prejudice. All Consultants must specifically disclose all aspects of the proposed solution which deviate from the documented standards and desired architectures, and provide approaches for consideration about the manner in which non-standard components may be integrated.

The US Federal government and other parties such as APCO occasionally update and improve the referenced standards or develop new ones. In that the City may adopt such future standards, it is mandatory that the CAD Consultant monitor these developments and upgrade their offerings as necessary to comply.

The time between purchase of a CAD system and its implementation may be significant; therefore, it is possible that updated standards may have been released in the interim. The City will not accept products that will be outdated by the time they are implemented. It shall be the Consultants responsibility to verify and validate all new standards as they are implemented. The City shall not be responsible for determining when new standards are required.

Consultants are encouraged to review the standards and comply at minimum to the standards associated which each of the following:

NIEM - National Information Exchange Mode

NIEM is a product developed by the Office of Justice Programs in the US Department of Justice and adopted by the US Department of Homeland Security. NIEM describes XML schema for a variety of attributes associated with incidents and events including NCIC and NIBRS. The schemas allow for the easy sharing of data among disparate agencies and are becoming the de-facto incident-based integration and interoperability standard. Having CAD NIEM-compatible XML schemas available in a depository is required to improve the City's ability to quickly

respond to current and future data-sharing requirements. The Consultant's solution must specifically meet Global Justice Extensible Markup Language Data Model ("GJXDM").
http://www.niem.gov/
http://it.ojp.gov/jxdm/

LEITSC - Law Enforcement Information Technology Standards Council
The LEITSC was established by the Office of Justice Programs in the US Department of Justice to foster integrated justice systems through the definition and implementation of standards of CAD and RMS systems.
https://it.ojp.gov/documents/leitsc_law_enforcement_rms_systems.pdf
https://it.ojp.gov/documents/leitsc_law_enforcement_cad_systems.pdf

NENA – National Emergency Number Association
NENA provides 9-1-1 policy, technology, operations and education standards for public safety communication centers. The City has adopted the standards for ALI Data Exchange, ALI Response and GIS Mapping as a minimum standard. As the technology advances, the City requires compliance for NG 9-1-1 standards as adapted by NENA.
https://www.nena.org/

Next-Gen 9-1-1
Consultant must be prepared to meet all existing and proposed Next-Gen 9-1-1 functionality, including VOIP, Voice to Text, Video Submission and T.D.D. requirements.
http://www.its.dot.gov/ng911/

HIPAA - Health Insurance Portability and Accountability Act of 1996
HIPAA requires, among other things, that the privacy and security of protected health information be assured. This includes such information as may be transmitted and/or stored by electronic systems, including via wireless telecommunications. The CAD, RMS and Mobile systems must comply with the requirements of the law and the proposal must identify the steps taken to test and certify compliance with the standard prior to implementation.
http://www.hhs.gov/ocr/privacy/

CJIS Security Policy – Criminal Justice Information Services Security Policy
The CJIS Security Policy provides Criminal Justice Agencies ("CJA") and Noncriminal Justice Agencies ("NCJA") with a minimum set of security requirements for access to Federal Bureau of Investigation ("FBI") Criminal Justice Information Services ("CJIS") Division systems and information and to protect and safeguard Criminal Justice Information ("CJI"). The CAD, RMS and Mobile systems must comply with the policy and the proposal must identify the steps taken to certify compliance with the standards prior to implementation.
http://www.fbi.gov/about-us/cjis/cjis-security-policy-resource-center/view

CLETS - California Law Enforcement Telecommunications System
California Law Enforcement Telecommunications System ("CLETS") is an efficient law enforcement communications network available to all public agencies of law enforcement within the state. The CLETS provides all law enforcement and criminal justice user agencies with the capability of obtaining information directly from federal and state computerized information files. The CAD, RMS and Mobile systems must adhere to the statutes established in the CLETS Policies, Practices and Procedures publication.

http://oag.ca.gov/

NFPA - National Fire Protection Association
The NFPA is an international nonprofit organization established to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education. Specifically, NFPA Standard 1221 has been developed for the installation, maintenance and use of emergency services communication systems and NFPA Standard 1710 specifies requirements for effective and efficient organization and deployment of fire suppression operations, emergency medical operations. The CAD, RMS and Mobile systems must comply with these standards and the proposal must identify the steps taken to certify compliance with the standards prior to implementation.
http://www.nfpa.org/

UICDS - Unified Incident Command and Decision Support
UICDS is a national "middleware foundation" designed to support information sharing for the National Response Framework ("NRF") and the National Incident Management System, including the Incident Command System. UICDS middleware is transparent to emergency management system users during operation and requires no special training. It shares data across applications on a wide variety of emergency response hardware, as it is built around data standards and the National Information Exchange Mode ("NIEM"). It enables information sharing between incident command systems and multi-agency coordination that provide common situational awareness and decision support during all types of incidents. UICDS enables multiple responding organizations (using their own equipment) to jointly manage personnel, direct equipment, and seamlessly communicate, gather, store, redistribute, and secure any mission-critical information needed by incident commanders and emergency responders during an emergency situation. The CAD, RMS and Mobile systems must meet all UICDS standards including, but not limited to, CAD to CAD functionality.
http://www.ucids.us

NFIRS - National Fire Incident Reporting System
The National Fire Incident Reporting System ("NFIRS") is a reporting standard that fire departments use to uniformly report on the full range of their activities, from fire to emergency medical services ("EMS") to equipment involved in the response. The CAD system must comply with these standards and the proposal must identify the steps taken to certify compliance with the standards.
http://www.usfa.fema.gov/data/nfirs/index.html

NEMSIS - National EMS Information Systems
NEMSIS is a national standard of data and the national repository for EMS data.
http://nemsis.org/

APCO - The Association of Public-Safety Communications Officials
APCO is an international leader committed to providing complete public safety communications expertise, professional development, technical assistance, advocacy and outreach to benefit and the public. APCO is an American National Standards Institute ("ANSI")-Accredited Standards Developer ("ASD") that develops standards for public safety communications. The CAD system must comply with these standards and the proposal must identify the steps taken to certify compliance with the standards.

https://www.apcointl.org/

1.5 CAD Software Requirements

The City requires the proposed CAD solution to be fully integrated with RMS and Mobile, with neither of these systems provided by a third party. The CAD solution must meet the same general requirements as depicted in "Section 1.4, General Software Requirements".

The Police Department will replace its West Covina CAD system version 7.2.0.15085 with the selected Consultant's Multi-Agency: Police and Fire CAD solution.

The proposed Multi-Agency (Police and Fire) CAD system shall facilitate incident response and communication with operations in the field. The system allows operations and communications to be augmented, assisted, or partially controlled by atomization that includes the ability for computer-controlled resource dispatching, resource status management, incident reporting and analytical information. The system must be optimized for rapid response time and system reliability. Because time is of the essence, the system must accurately provide a date and time-stamp for every activity. The system must be capable of interfacing with more than one RMS system and support the exchange of data between other agency CAD systems.

The system shall also support functionality to assist in effective use of public safety resources, including: a roster/scheduling system, Be on the Lookout ("BOLO") files, and the ability to stack or schedule a call for service for a future date. The system shall server as the first point of entry for a Call for Service ("CFS") and include functions for: Police, Fire and EMS dispatching; medical priority dispatching ("MPDS"); resource management; location verification; dispatching of resources; resource statuses; incident disposition; interactive mapping and interface with mobile data computers ("MDC"); and interface with external local, state and federal information systems.

The CAD solution must be designed to conform to the national standard for computer aided dispatch functional specifications, Unified Computer-Aided Dispatch Functional Requirements ("UCADFR"), developed by the LEITSC and the Law Enforcement Information Sharing Program ("LEISP") technical standards of the U.S. Department of Justice's ("US DOJ") Global Justice Extensible Markup Language ("XML") Data Model (Global "JXDM").

For all exchanges generated by RMS, conformance with US DOJ's Global JXDM is required.

The CAD application must support complex, agency-defined resource recommendation algorithms that meet the needs of the public safety users. Resource recommendations must be based on either AVL locations, Patrol Beat, Fire Districts or Station Response Districts, depending on the event type. The CAD application must maintain and track public safety resources by status and location provided by real-time AVL.

The CAD application must support complex event distribution based on event location, service agency, service type, and/or jurisdiction. Certain event types must automatically create "linked" events for multiple agencies/services and distribute each to the appropriate dispatch position.

The systems must meet the following performance specifications as measured by maximum response time. Response time is measured as the time between a user-initiated command via any

mode and the return of the requested data or action from the system. The system must (at a minimum) provide 99.999% uptime performance.

Transaction	Maximum Response Time
Locally attached CAD workstations, no external data access	1 second
Locally attached CAD workstations, geo-file validation required	2 second
Locally attached CAD workstations, non-CAD data access required	3 second
Locally attached Report Server, simple query	2 second
Locally attached Report Server, complex query	3 second
Standalone MDC computer, single record access	1 second

NOTE: For each transaction listed, 95% of the occurrences must complete within the specified Maximum Response Time.

A workstation shall be deemed to be locally attached when it is in the same premise and on the same physical network as the application server. All CAD workstations located in the PSAP will be locally attached on a 1GB network backbone with 100MB to the desktop.

The maximum response time for CAD queries that necessitate access to data sources outside the City's computing environment, such as a mutual aid request or CLETS lookup, shall be measured as the response time provided by the external source plus three (3) seconds.

Response times for MDC computers shall be measured in standalone mode to discount any wireless network latency.

1.6 MDC Software Requirements

The City requires the proposed Mobile solution to be fully integrated with CAD and RMS, with neither of these systems provided by a third party. It is expected that the Mobile application will be an extension of CAD and RMS, providing the necessary functionality of a public safety user to receive and manage an incident and to further initiate and complete the reporting of an incident into the RMS system. The Mobile solution must meet the same general requirements as depicted in "Section 1.4, General Software Requirements".

The proposed Multi-Agency (Police and Fire) Mobile system shall facilitate communication between operations in the field and the communication center, specifically for the atomization of notification of a Call for Service from the CAD to the MDC. The CAD application's Mobile component must provide the public safety user with real-time, incident-specific information. Information must be accessible with minimal effort by the operator. Routine queries and status functions must be form-driven or single function key/screen press, minimizing the need to type commands.

The Mobile environment must support multiple applications, such as mapping and field-based reporting (Police only), while maintaining CAD status, messaging, and dispatch functionality as the primary operation. Third party software applications such as the City Fire Department's ZOLL Software® and Electronic Patient Care Reporting application must be able to co-exist on the same mobile hardware without impacting the performance of the Mobile solution.

The City's MDC's are configured with software to provide advanced authentication as required by the CLETS and the FBI CJIS Security Policy.

The proposed solution must be fully capable of being deployed on a device utilizing these systems to access the City's secured network.

The proposed solution must be fully capable of being deployed on the City's existing hardware and operating system, currently Windows 10. The City utilizes Panasonic model CF31 ruggedized mobile computers for both Police and Fire vehicles. Each MDC are equipped with a SiRFstarIVTM GPS chipset and accesses the City's secured network by Verizon Wireless as their public wireless carrier.

1.7 RMS Software Requirements

The City requires the proposed RMS solution to be fully integrated with CAD and Mobile and be developed as a native solution and not provided by a third party. The RMS solution must meet the same general requirements as depicted in "Section 1.4, General Software Requirements".

The Police Department will replace its West Covina RMS system version 16.11.1with the selected Consultant's Law Enforcement RMS solution. The Fire Department will not be replacing their existing ZOLL Software® and will therefore require an interface between the proposed CAD and their RMS.

The proposed Law Enforcement RMS solution shall provide for the storage, retrieval, retention, manipulation, archiving, and viewing of information, records, documents, or files pertaining to law enforcement operations and cover the entire life span of records development, from the initial generation of the case file to its completion. The RMS solution, at minimum, shall provide for the following business functions: calls for service, incident reporting, investigative case management, property and evidence management, arrests, warrants, traffic accident reporting, citations, field interviews/contacts, registrants, pawns, civil process orders and restraints, permits and licenses, equipment and asset management, fleet management, personnel, internal affairs, and analytical support (crime analysis).

The RMS solution must be designed to conform to technical standards by the US DOJ Global Justice Extensible Markup Language ("XML") Data Model ("Global JXDM").

The RMS shall provide, at a minimum, the following general requirements: single entry (i.e., no duplicate data entry); automatic submission of data to external sources; maximization of the utilization of code tables; provide the ability to enter and query narrative(s)/text fields; spell check and formatting capability on narrative(s)/ text fields; provide the ability to access multiple systems from a single RMS workstation; utilization of a single database (virtual or physical); validation on data entry (i.e., logical edits, edit checks for all fields); and provide the ability for operators to generate inquiries to internal (i.e., CAD and RMS) and external data sources (i.e., CLETS, NCIC, DMV, LInX) from within each module where such inquiries make sense.

The proposed RMS solution must provide the operator with, at a minimum, the ability to reuse and/or import data returned from external sources to eliminate redundant data entry. RMS must provide the capability to electronically forward RMS data to external data sources, either automatically or upon the user's request (i.e., based on agency rules embedded within RMS). The above capabilities should be based on existing and emerging criminal justice standards, including DOJ's Global JXDM; the NIEM; and the National Institute of Science and Technology ("NIST"),

including the Electronic Fingerprint Transmission Specification ("EFTS") and Facial Recognition Collection standards.

The proposed RMS solution must have basic master indices that correlate and aggregate information in the following areas: people, locations, property, conveyances (e.g., vehicles), and organizations (including businesses and gangs). Master indices eliminate redundant data entry by allowing the reuse of previously stored information and the automatic update of the master indices upon the entry of report information. Master indices information should be captured in a variety of ways to include, at a minimum during the input of, information from an incident, traffic accident, vehicle reports, citation, booking, arrest, juvenile, fingerprint, and mug shot subsystems. Prior to accepting an entry, RMS should automatically give the user the option of determining whether there is a match based on existing data. The system should support the validation and linking of addresses, commonplace names, and street intersections. Linkages among any information contained in the master indices (e.g., people to places or person to person) must be included in RMS.

The proposed RMS solution must be compatible with third party reporting tools such as Crystal Reports. The City requires the solution to provide standard reports for Federal and State Statistical Reporting, including Uniform Crime Reporting ("UCR"), National Incident Based Reporting System ("NIBRS") and Electronic Crime and Arrest Reporting System ("ECARS"). Reporting tools must provide ability to seal or expunge records as well as purging of records with entry into an audit log of the activity.

1.8 Field Based Reporting Software Requirements

The City intends the Consultant to propose a solution for Field Based Reporting ("FBR"). All FBR data collected shall be integrated with the RMS. The FBR software shall be installed on each MDC device and on workstations at various locations throughout the City, providing both wired and wireless access. The FBR application shall have the ability to collect demographic information, including gender, race, reason for stop, and location. The completed FBR shall become the official report of record on the RMS host. The FBR software shall facilitate data entry by the report writer.

Navigational buttons, scrolling lists, "write-in" text boxes, validated lists, and pop-up windows shall be available to assist the report writer. The mobile client application shall support the ability to work on different report types at the same time. A simple one-step mechanism shall be available to switch from one report type to another (e.g., from an Offense Incident Report to a Booking / Arrest Report) without loss of data in any report.

1.9 Interface Software Requirements

The CAD must be designed to operate as a component of a tightly integrated, comprehensive, multi-jurisdictional, multi-agency, multi-user, incident based public safety system. Therefore, the proposed solution must interface with a number of the City's ancillary systems. For each interface, all functionality will be fully described within a Functional Specification Document ("FSD") that will be developed by the Consultant and approved by the City. The FSD will be developed and approved after the Consultant is selected but before any work begins on the interface. In the event a standard interface exists, the Consultant shall provide, in response to this RFP, the capabilities and functionality of each interface.

1.9.1 General Interfaces

1.9.1.1 ANI/ALI Interface

An interface with the City's PSAP software, VESTA 9-1-1 is required. The interface must enable incoming E9-1-1 ANI/ALI data to be automatically mapped to corresponding address and phone data fields based on the Master Street Address Guide ("MSAG") standard in the Calls for Service ("CFS") event entry form and geo-locate the location of the caller on the CAD map display. The interface must support all E9-1-1 ANI/ALI formats including wire-line, Wireless Phase I and Wireless Phase II, Voice over IP, and Multi-Line Telephone Systems. The interface must enable the insertion of additional fields captured in the CFS event, including ESN, call type (landline, wireless), and ANI/ALI tracking ID (if available).

If the Consultant has an integrated PSAP software application as part of the CFS process, the integration shall be included as standard functionality and not be delivered nor implemented as a secondary option.

Next Generation 9-1-1 (NG-9-1-1)

The Consultant shall be responsible for progressive research and development of new technologies as they relate to NG-9-1-1 to be capable of receiving cellular calls, instant messaging, legacy 9-1-1 calls (wireline), telematics (automatic crash notification) data directly from the vehicle, VoIP calls, and live video feeds. The Consultant shall include this functionality as standard functionality and not be delivered nor implemented as a secondary option.

The Consultant shall describe their vision, both immediate and long-term, for CAD-integrated Next Generation 9-1-1 services. This should include a description of NG9-1-1-associated data management (receipt, case integration, storage and retention), as well as access for both CAD and mobile users. The Consultant shall describe any NG9-1-1-related capabilities, functionality and features of the proposed CAD system, including any integration of NG9-1-1 data into the CAD call workflow.

To the extent that the functional elements of NG9-1-1 are defined, The Consultant is required to describe the proposed solution's ability to meet NENA i3 (08-002/08-003) and associated standards. The City recognizes that current NENA standards do not specifically address core CAD functionality; however, it is clear that there are points of interaction with standardized i3 functional elements. Consultant shall describe how the proposed CAD solution will be updated as new and revised standards, functionalities and features are developed, as well as how data elements from NG9-1-1 and CAD are managed to ensure data received from NG9-1-1 is usable without extensive reformatting by the CAD solution.

References:
http://www.its.dot.gov/ng911/
http://www.nena.org/?page=FuncIntrface_NG911

1.9.1.2 Global Positioning System / Automatic Vehicle Location Interface

The City requires that the CAD and Mobile applications utilize the most current, real-time to near real-time location of each fire apparatus, police vehicle and/or personnel. Latitude and Longitude information needs to be converted to address data and appropriately displayed

on the integrated CAD and Mobile maps. The CAD and Mobile applications must be able to manually poll any GPS-equipped vehicle or person by assigned radio and/or MDC. The CAD and Mobile applications must be configurable to control the automatic polling update rate based on location, status, time and/or distance, or any combination thereof. GPS data is accessible by two resources as follows:

Mobile Data Computers: The City utilizes a Panasonic CF31 Toughbook equipped with a built in SiRFstarIVTM GPS chipset in both Police and Fire vehicles. The MDC will be the primary method of receiving GPS data.

Radio System: The Police Department has deployed the Harris Unity® XG-100M (fixed mount) and XG-100P (portable) radios equipped with an internal GPS receiver. The XG-100 devices will be the secondary method of receiving GPS data. The system should be capable of being configured to track the location of the portable radio if the portable radio assigned to an officer is not within a defined perimeter of the vehicle they are assigned to.

The proposed solution must use a combination of GPS data provided by the MDCs and Radios.

1.9.1.3 Kronos® Workforce TeleStaff™

The City Fire Department utilize Kronos® Workforce TeleStaff™ to maintain a daily schedule of personnel assigned to each apparatus for the Fire department. The proposed solution must provide the ability to interface with Kronos® Workforce TeleStaff™ for the purpose of maintaining synchronization of daily schedules near real time in the CAD's roster or schedule functionality.

1.9.2 Law Enforcement Services Interfaces

1.9.2.1 Records Check System

The City's Police Department requires an interface be implemented to provide the ability to access and complete either; queries, locating, entering, modifying, clearing, cancelling, and or commenting on records on multiple systems either individually, or a combination thereof.

The Records Check system must be capable of accessing; Agency Local Databases such as CAD and RMS, State Databases such as the CLETS and DMV, National Databases such as NCIC, and Local Databases such as the Riverside County Sheriff's Office RMS and JMS systems, Riverside County Court, Riverside County Probation, Riverside County Wants and Warrants and the regional LInX Database.

In addition, the Consultants must provide their experience in completing each of the following interfaces and where applicable, provide the experience in working with specific applications that are depicted below.

1.9.2.1.1 CAL DOJ/CLETS Interface

The City requires an interface to the CLETS system for the purpose of accessing files of the CJIS, the Department of Motor Vehicles ("DMV"), the National Crime Information Center ("NCIC"), and the National Law Enforcement

Telecommunications System ("NLETS") over the California Department of Justice ("CA DOJ") secure telecommunication backbone.

Utilizing the CA DOJ standard access method, TCP/IP, the interface shall be designed to handle all CLETS traffic; transmitting and receiving responses to inquiries, entries and updates, and the processing of administrative messages such as All Point Bulletins on a statewide or nationwide basis.

The CLETS interface must provide for all data forms currently available for the CLETS system to complete queries, locating, entering, modifying, clearing, cancelling, and or commenting on records. The interface must be able to nest queries (example, when a registered owner's information is returned from a vehicle tag query, the system automatically runs the registered owners information, etc.).

The interface will present the returned CLETS information in a formatted display with capability to add specific returned information as a supplement to the CAD incident or RMS record, or be forwarded to an MDC. The proposed solution will also provide for the display of images (mug shots, driver's license or ID photos, etc.) on the CAD or MDC display.

The interface shall provide the ability to "spawn" additional queries based on the information returned from a previous query to any other interfaced database. The ability to generate spawned queries shall be configurable by a system administrator (example, when a return from CLETS is received and the info contains the name of an individual, the system shall spawn an additional query to the regional LInX database).

The proposed solution should provide the ability to perform multiple simultaneous searches from a single entry screen form (i.e. with a single entry of identifying information in a query) and automatically search CLETS, NCIC, DMV, local Riverside County Warrants databases, and the resident CAD, RMS and BOLO files, etc.

1.9.2.1.2 Law Enforcement Information Exchange ("LInX") Interface

The City Police Department is a participating member of the So Cal LInX Region. LInX is a national cooperative law enforcement data share consisting of participating members of municipal, county, state and federal law enforcement agencies broken down into 12 regions, primarily in jurisdictions with military bases nearby. The LInX database consists of Incident Data, Investigative Reports, Narratives and Supplemental Reports, Field Interviews ("FI's"), Arrests, Warrants, Mugshots, and CAD data such as traffic stops, etc.

The data provided by the City's Police Department to LInX is accomplished by sending data through the Riverside Sheriff's Office, "Data Warehouse" (Interface description below). The City intends to have a direct interface with LInX for performing queries of the LInX database similar to queries of the CLETS system. LInX has established a web service interface using NIEM-based LEXS S/R standards.

The proposed solution must provide for the simultaneous query of both CLETS and LInX.

1.9.2.1.3 Riverside County Sheriff – Records Message Switch (Data Warehouse)

The Riverside County Sheriff's Office ("RSO") has developed a new message switch to enable outside agencies the ability for accessing data on the RSO's current Tiburon RMS system. The message switch is designed to utilize CAL DOJ CLETS messaging formats to complete inquires. The proposed solution must provide an option to simultaneously query the RSO RMS system.

1.9.2.1.4 Riverside County Probation

The Riverside County Probation Department provides the capability to interface their technology with CAD to for automated queries. The proposed solution must provide the ability to interface with Vigilant Solutions Mobile LPR solution.

1.9.2.1.5 Riverside Superior Court – Case Management System (Optional)

The Riverside Superior Court utilizes a Case Management System by Journal Technologies, Inc. ("JTI"). JTI provides an Application Programming Interface ("API") to enable third party providers a web-service based interface to query the Case Management System. The proposed solution must provide an option to simultaneously query the Case Management System.
http://newdawn.com/solutions/adaptive-case-management/web-services-based-api/

1.9.2.1.6 DataWorks Plus - Digital PhotoManager

DataWorks Plus provides an investigative mugshot management system, Digital PhotoManager, which houses a regional data share of mugshots throughout Riverside and San Bernardino Counties. DataWorks Plus has developed an interface to be utilized for completing an active server query. The intent of an interface with Digital PhotoManger is to provide the agencies dispatchers with an automated process for searching for mugshots, or related photo's simultaneously while completing a CLETS search. The proposed solution must provide for the simultaneous query of Digital Photo Manager based on criteria to be decided upon completion of an FSD.

1.9.2.2 Riverside District Attorney's Office – Case Filing System

The Riverside District Attorney's Office utilizes Law Enforcement Agency Filing System ("LEAFS") by Agiline to interface the local RMS system with the District Attorney's office Case Management System.

Agiline provides an Application Programming Interface ("API") to enable third party providers a web-service based interface for two-way communication with the Case Management System. The proposed solution must provide an option to simultaneously query the Case Management System.
http://agiline.com/products/LEAFS

1.9.2.3 Crossroads Software – Citation and Report Writing

The City Police Department utilizes Crossroads Software for citations, collision reports and DUI arrest. The software provides for analytics and report writing functions. Crossroads provides a desktop application as well as a mobile application on a handheld device with Microsoft Windows Mobile Operating System. Data from these devices is synchronized with a centralized server which is interfaced with the Riverside County Court. The proposed solution must provide the ability to interface with Crossroad for synchronizing CFS information and synchronizing data in the proposed RMS.

If the Consultant's system includes a Citation module as part of the solution, the Consultant should provide details of the functionality and whether or not the module can be ran on a hand held device utilized in the field by the agency's traffic units. An interface with Riverside County Courts will be required.

1.9.2.4 FileOnQ™ – EvidenceOnQ™

The City Police Department utilizes EvidenceOnQ™ to manage, maintain and track property and evidence from crime scene to courtroom. The proposed solution must provide the ability to interface with EvidenceOnQ™ for synchronizing property and evidence in the proposed RMS.

If the Consultant's system includes a Property and Evidence module as part of the solution, the Consultant should provide details of the functionality.

1.9.2.5 License Plate Reader – Vigilant Solutions

The City Police Department utilizes a License Plate Reader ("LPR") system by Vigilant Solutions. Vigilant Solutions provides the capability to interface their technology with CAD to assist in automating alerts within CAD and/or the MDC's for matches against various hotlists. The proposed solution must provide the ability to interface with Vigilant Solutions Mobile LPR solution.

1.9.3 Fire Services Interfaces

1.9.3.1 Fire RMS

The City Fire Department utilizes ZOLL Software® for NFIRS 5.0 Incident and Investigation Reporting. The proposed solution must provide the ability to interface with ZOLL® RMS.

1.9.3.2 Priority Dispatch® PROQA® Paramount MPDS

Currently the City's Public Safety Dispatchers utilize a Medical Priority Dispatch System® ("MPDS"). The proposed solution must be a certified interface for seamless integration with ProQA® Paramount. The proposed Consultant must be a ProQA® Paramount CAD Platinum Certified Partner with Priority Dispatch Corporation™.

1.9.3.3 Electronic Patient Care Reporting

The City Fire Department utilizes an ImageTrend Electronic Patient Care Reporting ("ePCR") system for the purpose of electronic EMS documentation and reporting. The proposed interface with the ePCR application must provide a one-way data transfer of Call for Service and Emergency Medical Dispatch data elements that meet the requirements of NEMSIS v3 CAD Dataset.

1.9.3.4 Fire Station Alerting

The City Fire Department is implementing a Phoenix G2 Fire Station Alerting system by US Digital Designs. The proposed solution must be capable of interfacing with the Phoenix G2 to automatically initiate station alerting functions.

1.9.4 CAD-to-CAD Interfaces

The purpose of the CAD-to-CAD interface is to connect disparate CAD systems for the exchanging of data to assist in the transfer or receipt of a call for service of neighboring police, fire and/or EMS agencies and to allow the transfer of each agencies resources location and status information.

The proposed interface functionality, whether a single instance for multiple CAD system or a single instance for each CAD connection, must be capable of, but not limited to, the following: establishing a heartbeat to monitor the connectivity of the two systems; sending and receiving incident data; establishing a link between the incidents on either end for updates; acknowledgment of receipt of an incident; assigned resource identification and corresponding status changes of each assigned resource; resource position (GPS) or location sharing; incident cancellation processing; request for shared resources; and messaging between the two CAD systems. The interface shall provide an audit trail of the exchanged information to enable research by way of querying the data.

Ideally, the CAD-to-CAD interface in its basic function is a single data exchange switch facilitating the exchange of data between each of the disparate CAD systems to enable a dispatcher on either end of the interface to visually monitor the current location and status of neighboring agencies resources and to enable the CAD system to make resource response recommendations based on the known real-time location and proximity of the resources, regardless of which agency the resource belongs to. Initiation of the request for resource response shall be automated by sending incident information and the requested resources to the neighboring agency's CAD system. Upon receipt, the receiving dispatcher shall manually accept or deny the request and manage the dispatching functions resident to their CAD system.

The City requires an interface for each of the following agencies:

1.9.4.1 CAD-to-CAD Riverside Sheriff's Office

The City Police Department requires a CAD-to-CAD interface with the Riverside Sheriff's Office ("RSO"), operating an in-house developed CAD System for the purpose of a bi-directional transfer of specific information between the two CAD systems. The requirements for interfacing to RSO's CAD will be defined during the development of an FSD during the implementation phase of the project.

1.9.4.2 CAD-to-CAD CAL FIRE

The City Fire Department requires a CAD-to-CAD interface with the California Department of Forestry and Fire Protection ("CAL Fire") for the purpose of a bi-directional transfer of specific information between the two CAD systems. The interface to CAL Fire is established by connectivity through the agency's central CAD Interface Server ("CIS"). The CIS communicates with external CAD systems by consuming a web service to receive and deliver messages. The requirements for interfacing to the CAL Fire's Northrup-Grumman CAD are

defined in the agency's "CAD Interface Developer's Guide" to be provided during the initiation phase of the project.

1.9.4.3 CAD-to-CAD AMR

The City Fire Department requires a CAD-to-CAD interface with American Medical Response ("AMR"), operating a TriTech CAD System for the purpose of a bi-directional transfer of specific information between the two CAD systems. The interface to AMR is established by connectivity through a TCP/IP communication protocol. The requirements for interfacing to AMR's TriTech CAD are defined in the TriTech "Standard Basic CAD-to-CAD Interface IRD, and the "CAD-to-CAD Developers Guide" to be provided during the initiation phase of the project.

1.10 Training Requirements

The Consultant shall develop a training work plan and curriculum to be approved by the City project manager in conjunction with City personnel. The work plan should also include periodic follow-up and update training when a new release or version of any application is installed. The Consultant must develop a training plan and curriculum that specifies the required training and technical staff supporting the application. The Consultant's City-approved training schedule must be closely coordinated with City staff to coincide with the installation of the software and hardware. Upon acceptance by the City Project Manager, the Consultant shall implement said approved plan.

The City requires a hybrid training approach that utilizes both Consultant-supplied trainers, as well as a train-the-trainer capability. All initial CAD, RMS and Mobile training shall be performed by Consultant training City personnel as trainers. Thereafter, the Consultant will shadow a training session conducted by the City trainers, who will become responsible for completing the rest of the training sessions. The shadow period is expected to run for one (1) class for each training type (dispatchers, field personnel and administrators).

The City requires an optional provision to have each of the dispatchers trained by the Consultant, as opposed to a train-the-trainer approach. This option will be determined at the time training is to commence and will be based on the comfort level of the project team.

The City will work with and assist the Consultant in the scheduling of the initial shadow training programs.

The City shall provide space sufficient for conducting the training and housing and securing the training equipment.

Given the shift assignments of public safety personnel, training courses will often need to be scheduled outside of normal working hours, including weekends and evenings. In order to keep the training relevant to the ultimate system look-and-feel, as well as fresh as possible and still accommodate the necessary number of sessions, it is expected that training will not begin until after preliminary system acceptance and before cut-over, but in no case will begin longer than 30 days prior to the scheduled "Go-live" date.

If the CAD Go-live date is significantly delayed due to the Consultant's actions or faults, any repeat training sessions as determined by the City must be performed at no cost to the City.

With some exceptions (e.g. System Administration training), classes will contain no more than 4 trainees for CAD training and no more than 12 trainees for RMS and Mobile systems and will not last longer than six hours.

The Consultant shall be responsible for providing sufficient training materials and take-away documents such as user manuals and user guides/"cheat sheets" to adequately perform the initial training and provide follow-up reference material for the trainees.

The Consultant must provide a comprehensive training program minimally covering:

1) PSAP personnel user training;
2) Police & Fire field personnel;
3) Agency-Based supervisory personnel;
4) Standard and ad hoc reporting;
5) CAD system administration (including Consultant supplied Interfaces);
6) CAD technical Operations; and
7) GIS Functions and Operation.

1.11 Data Conversion Study

It is the City's desire to have historical data from the West Covina system accessible, resident or not, within the new CAD, RMS and Mobile solution. It is imperative that all historical data is either archived or maintained in a manner that allows querying of the data from the new proposed system, or is converted and added to the new proposed system.

Consultants are encouraged to use their expertise in this area to provide the City applicable options in the form of a Data Conversion Study. The City understands there may be many methodologies available to manage legacy data in a cost-effective and user friendly manner. The City will convert a specific amount of data into the new system while maintaining all other legacy data on a separate system that can still be accessed by personnel.

The City is seeking to migrate the following data from the legacy systems:

1) Incidents,
2) Case Reports,
3) Case Narratives,
4) Case Persons,
5) Case Property,
6) Case Vehicles,
7) Field Interviews,
8) Master Name Index (Persons),
9) Master Property Index,
10) Master Locations Index,
11) Citations, and
12) Pawns.

The Consultant shall include a description of all Consultant and City processes and activities required to successfully migrate legacy data from the legacy systems into the Consultant's proposed solution. The study should include the following:

1) The Consultant's proposed data conversion process;

2) Specific functionality and features of the proposed solutions(s). For example, precise information how City personnel would access the historical data;
3) Specific roles and responsibilities for proposed City resources, as well as recommended skills of personnel required to perform City tasks;
4) Specific roles and responsibilities for proposed Consultant resources, as well as recommended skills of personnel required to perform City tasks;
5) Qualification, experience and resumes of Consultant staff proposed for the Data Conversion Task;
6) A description of the Consultant's proposed automated data conversion tools;
7) Recommended solutions for end-users to access non-migrated legacy data via integrated system or separate queries;
8) Recommended storage location for non-migrated legacy data;
9) Any prior data conversion experience with the City's legacy systems. Please list the relevant projects, the versions involved, and provide contact information for the clients. We are particularly interested in projects that involved the proposed Data Conversion personnel; and
10) The Consultant shall include a description of its process for implementing data conversion and archiving legacy data.

1.12 Hardware Requirements

All hardware must be new equipment delivered in the manufacturers' original packaging and carrying the manufacturers' full warranty. The warranty period begins after system acceptance and certification by the City that the equipment is in production use. All equipment must be installed according to manufacturers' requirements.

All hardware components must be sized appropriately to ensure that the performance requirements of the Consultant's application will be met. Equipment specifications provided by the City within this RFP shall be considered as minimal requirements. All servers provided by the Consultant will, at a minimum, meet the City's IS Technology Standards.

Consultant must provide servers and workstations that meet the following minimum requirements:

1.12.1 CAD Servers:

The Consultant shall furnish and install the necessary Servers to support the CAD and all Interfaces and Report Server(s). All server architecture must comply with the City's IS Technology Standards, and leverage VMware's virtualization technology and Industry Standard 3rd Party Automated Tools to facilitate high-availability and immediate failover from a network, computer, and storage layer.

The Consultant will recommend the quantity and provide such servers as to meet or exceed the minimum requirements of their software and the required performance standards delineated within this RFP.

The operating system kernel may not be modified. All support for hardware redundancy must be provided by Consultant-supplied middleware and firmware that can be upgraded as required.

The solution must provide the guaranteed availability of 99.999% uptime (at a minimum), utilizing fully redundant hardware i.e., functionally critical hardware within the single server

must be duplexed. Interface and Report Servers are not required to be fault tolerant. For the primary CAD servers, the following components must be fully redundant, at minimum:

Motherboard, including CPU chipsets and Memory DIMMs
The motherboards must be completely encased for safety, and designed to allow insertion and removal, for repair, without shutting down the operating system, or the applications.

Disk Drives
All disk drives in the proposed solution must use RAID 1 mirroring (*at a minimum*). This data protection must be provided with redundant SAS controllers that perform all Input/Output ("I/O") operations across a redundant bus. The mirror technique must be implemented in a fashion that has no performance penalty. All disk drives must be completely encased for safety, and designed to allow insertion and removal, for repair, without shutting down the operating system, or the applications.

Power Cords
Two external, twist-locking power cords are required for the proposed solution. The server must have onboard dual power supplies with dual power cords connected to two separate and distinct Uninterruptible Power Supplies connected to two separate power circuits.

For security reasons, all encased components must be designed so that City personnel and/or operational staff can be trained in the replacement of failed parts. Replacement parts must be shipped to the City utilizing a priority overnight carrier with guaranteed delivery.

The proposed server solution must contain self-diagnosing logic that will determine, based on error thresholds, if a component is failing. Once that determination is made, and without human intervention, the server must be capable of contacting the supplying Consultant and requesting replacement components.

The Consultant will maintain a support infrastructure that is fully operational 24 hours per day, and seven days per week. This infrastructure must be global in nature, and also accept calls from City personnel as they have questions or issues pertaining to the proposed solution.

1.12.2 Workstations

The Consultant shall furnish and install ten (10) workstations to support the Operations, Training, and Testing environments. The Consultant will provide such workstations as to meet or exceed the minimum requirements of their software and the required performance standards delineated within this RFP. All workstation architecture must comply with the City's IS Technology Standards.

1.12.3 Position Requirements

1) Ten (10) – Combination Dispatch and Call Taking Positions
2) Site License – Mobile Computers
3) Site License – Browser Based Functionality

4) Site License – Police Records Management System
5) Site License – Records Check System

1.12.4 CAD Printers

The Consultant shall provide two (2) laser printers to support the printing of reports. The printer must have a network interface controller ("NIC") installed. All printers, at a minimum, must comply with the City's IS Technology Standards.

1.13 Licenses

Consultants shall provide a copy of all end user software license agreements ("EULA") that the City will be requested to execute.

1.14 Maintenance, Support and Updates

The Consultant shall make available to the City all updates to the software, as they are released, at no additional charge, so long as the City is currently under the Consultant's software maintenance agreement. To ensure that documentation is consistent with the operating environment, updated documentation must be delivered concurrently with the software update.

1.15 Warranties

CONSULTANT shall include in its proposal a list and description of warranties that it will provide, which list shall include, but not be limited to, warranties at least as broad as the following:

1) Performance Warranty – CONSULTANT shall warrant its performance of all services provided pursuant to this RFP for at least one (1) year following Beneficial Use.

2) Intellectual Property Warranty - CONSULTANT shall warrant that it and its sub-consultants have the right to license any and all products, or pass through the license of third party products, provided for the System.

3) Software Warranty - CONSULTANT shall warrant, for at least one (1) year following Beneficial Use, any and all software provided for the System against Security Level 1, Security Level 2, Security Level 3 and Security Level 4 errors, including, but not limited to, those caused by viruses.

4) Warranty Against Deliberate Viruses – CONSULTANT shall warrant against deliberate time bombs – encrypted key technology to disable the System or otherwise hinder System functionality.

5) System Warranty – CONSULTANT shall warrant that the System provided and installed includes all components necessary to perform as required by this RFP. CONSULTANT shall also warrant that the System shall be substantially free from programming errors and shall perform in accordance with the specifications and requirements of this RFP in all material respects for at least five (5) years following Beneficial Use.

1.16 Quality Control

This RFP requires the establishment of a quality control system by the Consultant to ensure that hardware and software supplies and/or services meet the quality standards explicitly and implicitly

specified in this RFP. The quality control system, including procedures, is subject to surveillance by the City.

The quality control system and procedures shall be designed by the Consultant. The Consultant's procedures used to implement the requirements of this sub-specification shall be subject to the approval of the City. In the event of disapproval, the Consultant is solely responsible for devising new procedures that meet with the explicit approval of the City.

The quality control system shall ensure that adequate control of quality is maintained throughout all areas of contract performance, including, as applicable, the receipt, identification, stocking, and issuance of material; the entire physical process of manufacture, packaging, shipping, storage, installation, and maintenance; and processes of software development including design structure, coding, testing, integration, and implementation.

All equipment, supplies, and services under the contract, whether manufactured or performed at the Consultant's facility or at any other source, shall be subject to control at such points as necessary to ensure conformity with the specifications and contractual requirements. The proposed solution shall provide for the prevention and ready detection of discrepancies and for timely and positive corrective action. The Consultant must make objective evidence of quality performance readily available to the City.

1.17 Definitions

In addition to any other terms defined herein, the following definitions and meanings shall apply to CONSULTANT's responsibilities pursuant to this Scope of Services and Deliverables:

1.17.1 "AFR" means Automated Field Reporting and refers to the part of the CONSULTANT's solution that is used for entering data from the field as part of the Records Management System.

1.17.2 "Beneficial Use" means the CONSULTANT's proposed solution is being used, without error, in the CITY's live dispatch environment

1.17.3 "CAD" means Computer Aided Dispatch System and refers to the part of the CONSULTANT's solution that is used to take 9-1-1 calls and dispatch resources accordingly.

1.17.4 "Equipment" means the equipment CITY has purchased from CONSULTANT pursuant to the Agreement that is part of the System described herein and in Exhibit "A" of the Professional Services Agreement.

1.17.5 "MDC" means Mobile Data Computer and refers to the part of the CONSULTANT's solution that is used by responders to receive call information and provide dispatch with call response updates.

1.17.6 "Software" means any CONSULTANT computer software, object code copy, and all of the contents of the files, disks, CD-ROMS, flash drives, or other media, including any templates, printed materials, and online or electronic documentation, all copies, and any modified versions, fixes, patches, and updates.

1.17.7 “Subsystem” means a CONSULTANT software and hardware solution that is designed to provide a specific capability independent of the procurement of any other Sub-system. CONSULTANT’s CAD, RMS, AFR, and MPS are examples of a Sub-system.

1.17.8 “Subsystem Acceptance” means the acceptance of one (or more) of the Consultant’s total solution. CONSULTANT’s CAD, RMS, AFR, and MDC are examples of Sub-systems.

1.17.9 “Subsystem Cutover” shall mean the date on which a completely functional Sub-system is first utilized in a live, production environment.

1.17.10 “System” means the Equipment, Software, and incidental hardware and materials that are combined together, configured, and implemented under the Agreement.