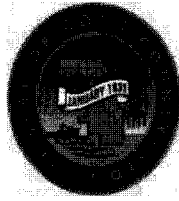


PROFESSIONAL SERVICES AGREEMENT

**SOFTWARE AND SYSTEM INTEGRATION SERVICES AND MANAGED
SERVICES FOR ORACLE EBS ERP SOFTWARE**

BETWEEN



COOK COUNTY GOVERNMENT

THE ERP CENTER OF EXCELLENCE

AND

IBM CORPORATION

CONTRACT NO. 1418-14268

**APPROVED BY BOARD OF
COOK COUNTY COMMISSIONERS**

SEP 09 2015

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MASTER SERVICES AGREEMENT
BETWEEN
COOK COUNTY GOVERNMENT
AND
IBM CORPORATION

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- H Key Provider Personnel
- I Approved Subcontractors

TERMS AND CONDITIONS

This Master Services Agreement (the "Agreement"), made as of September 15, 2015 (the "Effective Date"), is entered into by and between the County of Cook, a public body corporate of the State of Illinois, on behalf of the Office of the Chief Procurement Officer (the "County"), and IBM Corporation, a New York corporation ("Provider") pursuant to authorization by the Cook County Board of Commissioners on the 9th day of September, 2015 as evidenced by the Board Authorization Letter attached hereto. As used in this Agreement, "Party" means either the County or Provider, as appropriate, and "Parties" means the County and Provider.

1. INTRODUCTION

1.1. Background. This Agreement is being made and entered into with reference to the following:

1.1.1. The County provides general government services to its Using Agencies, including services performed by the Cook County Health and Hospitals System and the Forest Preserves District of Cook County;

1.1.2. Provider is a leading provider of technology services, including the Services (as defined in Section 3.1 below); and

1.1.3. After the County's request for proposal and Provider's response to such request, and the County's evaluation of Provider's response in accordance with the evaluation criteria published in the request for proposal, the County and Provider have agreed, as of the Effective Date, to enter into this Agreement.

1.2. Objectives. The Parties' objectives for this Agreement are as follows:

1.2.1. Provide a scalable and flexible services arrangement that will change as the County's requirements change (provided that such changes are germane to the Agreement).

1.2.2. Provide the Services for highly-competitive charges.

1.2.3. Provide the Services for charges determined by reference to a pricing methodology that:

(a) utilizes fixed, function-based pricing to the extent possible;

(b) results in the County's costs being predictable with factors affecting such charges remaining within the County's control; and

(c) gives Provider incentives to: (i) use resources efficiently; (ii) continuously improve internal processes; (iii) continuously train personnel; and (iv) periodically implement new technology.

1.2.4. Provide improved cost driver and operational transparency to support enhanced decision-making by the County's management and continuous improvement with respect to the performance of the Services.

1.2.5. Monitor developments in, and provide advice and recommendations on, technology, operations and processes that provide measurable value for the County.

1.2.6. Provide the County with terms and conditions that are consistent with, and provide the County protections and benefits that are consistent with, those obtained by other large customers (including similar government entities) in competitive procurements in the marketplace, and that, among other things, are designed to support the County's present and future service needs.

1.3. Guiding Principles. The principles identified below ("Guiding Principles") include principles that the Parties have determined to be important for the success of their relationship.

1.3.1. Enhance the County's Capabilities and Effectiveness. Services will be provided in a manner that enhances the County's ability to deliver high-quality, cost-effective services, both internally within the County and externally to the County's Using Agencies, with minimal interruptions in, and adverse impacts on, the County's delivery of services to its Using Agencies. The managed services environment will provide the County with industry-leading levels of performance.

1.3.2. Focus on Core Competencies. By engaging Provider to perform the Services and leveraging Provider's core competencies, the County will be able to focus more of its internal resources on providing services to its Using Agencies, including improved levels of service.

1.3.3. Improve Operational Processes. The County will learn a group of tasks from Provider that optimize the efficiency or effectiveness of the discipline or process to which they contribute and that are generally adaptable and replicable across similar organizations or enterprises, and sometimes across different functions, which will allow the County to improve its operational processes, including improving the efficiency of delivering services to its Using Agencies.

1.4. Interpretation and Construction.

1.4.1. The background, objectives and Guiding Principles set forth in Sections 1.1 through 1.3 shall function as guiding statements regarding the Parties' overall intentions for this Agreement. If any term or condition of this Agreement is ambiguous, unclear, or if the Parties did not anticipate a particular issue, the Parties shall refer to and apply the provisions of Sections 1.1 through 1.3 to resolve and/or address the ambiguous, unclear and/or unanticipated issue and this Agreement will be interpreted so as to give meaning to such provisions. Such provisions are not intended to expand the scope of the Parties' obligations under this Agreement or to alter the plain meaning of the terms and conditions of this Agreement.

1.4.2. As used in this Agreement, “day” or “days” shall refer to calendar days, and “month” or “months” shall refer to calendar months except as otherwise specified.

1.4.3. As used in this Agreement, “include” and its derivatives shall mean “including, but not limited to,” whether or not capitalized.

1.5. Structure of Agreement. In accordance with the terms of this Agreement:

1.5.1. Capitalized terms not otherwise defined in the main body of these terms and conditions (the “Terms and Conditions”) or any of the other Schedules, Attachments, Appendices or Exhibits included in this Agreement shall have the meanings ascribed to them in Attachment A (Definitions);

1.5.2. The Parties will comply with the governance, change management and other provisions relating to the management of this Agreement set forth in Schedule 1 (Relationship Management);

1.5.3. Provider will perform the Services (including the Services set forth in Attachment B (Transition Services)) and the other Services set forth in each Statement of Work attached hereto or entered into by the Parties from time-to-time in accordance with the requirements of this Agreement including all Schedules, Attachments, Appendices and Exhibits hereto or thereto, and with the Performance Standards and the County Policies;

1.5.4. In consideration of such performance and Provider’s performance of its other obligations under this Agreement, the County will pay Provider the Fees in accordance with Schedule 3 (Fees);

1.5.5. Provider’s Fees will be reduced in accordance with Schedule 4 (Service Level Agreements and Fee Reductions) in the event that Provider fails to meet certain Service Level Agreements;

1.5.6. The County will be responsible for performing the County Responsibilities; and,

1.5.7. Provider will perform the Exit Assistance Services set forth in Attachment E (Exit Assistance) during any Exit Assistance Period(s).

1.6. Conflicts. In the event of any conflict or inconsistency between provisions within the Terms and Conditions, or between this Agreement and any Schedules (or their Appendices), or the Attachments (or their Exhibits) to these Terms and Conditions, such conflict or inconsistency will be resolved by giving precedence first to the Terms and Conditions, and then to the Schedules (including their Appendices), and then to the Attachments (including their Exhibits).

2. TERM

2.1. Term. The term of this Agreement (the "Term") shall commence as of the Effective Date, September 15, 2015, and, unless earlier terminated pursuant to Section 15 of these Terms and Conditions or extended pursuant to Section 2.2 of these Terms and Conditions, shall expire on September 14, 2020.

2.2. Renewal Notice and Process. The County shall have the sole right, upon ninety (90) days' prior notice to Provider before the then-current Termination Date, to extend the Term for one (1) additional five (5) year term under the then-current terms and conditions of this Agreement and at the Fees set forth in Appendix 3-4 (Fees - Pricing Tables).

3. SERVICES

3.1. Services Generally.

3.1.1. The "Services" will include the following:

(a) all of the functions, responsibilities, services, and tasks described in this Agreement, including the Exit Assistance Services, and the services described in each Statement of Work hereunder;

(b) all of the functions, responsibilities, services, and tasks reasonably required for or that are an inherent part of, or a necessary sub-part of the proper performance of the functions, responsibilities, services, and tasks described herein in accordance with the Performance Standards, unless set forth in this Agreement as the County Responsibilities.

3.1.2. Provider will perform the Services in compliance with Section 2.6 (County Policies, Procedures and Guidelines) of Schedule 1 (Relationship Management).

3.1.3. Without limiting the generality of Section 3.1.1, Provider will perform the Managed Services in accordance with the Standards and Procedures Manual.

3.1.4. All Services will be performed in accordance with the terms and conditions of this Agreement, including all Schedules, Attachments, Exhibits and Appendices hereto.

3.2. Service Recipients. At the County's election Provider will make the Services, including New Services, available to the County's existing and future Using Agencies at the pricing and Performance Standards set forth in this Agreement. The work required in order to implement the Services with respect to a new Using Agency may constitute a Project.

3.3. New Services. If the County is interested in having Provider perform New Services, unless a different process is required under the Procurement Code, the County will provide Provider with a written request containing sufficient detail to enable Provider to provide the County with a proposal to provide such New Services. Provider will provide to the County, within ten (10) Business Days, or other time period as mutually agreed, after receiving the

County's written request for New Services, a reasonably detailed proposal therefor reflecting reasonable terms and conditions for such New Services, including a statement regarding Provider's fees for performing such New Services, the County Responsibilities (if any) reasonably required for Provider to perform the New Services, and additions or modifications to the SLAs, and KPIs to the extent necessary to appropriately measure the functions, responsibilities, services and tasks to be performed as part of the New Services. If the County elects to have Provider perform New Services, the Parties must enter into a written schedule to this Agreement and New Services under any such schedule thereafter will be deemed to be Services subject to the terms and conditions of this Agreement.

3.4. Evolution of Services. Provider will provide the Services as they may evolve during the Term changes in enterprise architecture and technology standards, advancements in process or technology improvements in the methods of delivering services, changes in legislation or regulation applicable to the Services, and changes in the market for the provision of the Services.

3.5. Reduction in Scope.

3.5.1. The County reserves the right to remove from the scope of this Agreement, and to perform itself, have one or more Third Party Providers perform, or delete altogether, any of the Services. In such event, Provider's Fees shall be adjusted in accordance with the SOW Change Control process set forth in Schedule 1 - Relationship Management or, if such adjustment is not reasonably available, will be equitably reduced to reflect the reduction in the resources and costs required for it to provide the Services. In the event of any reduction in scope pursuant to this Section 3.5, the County shall have no liability for any Termination for Convenience Fees pursuant to Section 15.4 for scope that is removed from the Services that the County will perform for itself.

3.5.2. As reasonably requested by the County Director of ERP, for a period of up to six (6) months after the County informs Provider of its decision to reduce scope, Provider will timely and reasonably cooperate with the County and assist the County with the transition of any Service to the County or a Third Party Provider designated by the County; provided, that Provider shall be compensated at the Personnel Rates for any such cooperation or assistance for which the Chief Procurement Officer provides advance, written approval to the extent such work otherwise exceeds the scope of the Services. Such cooperation and assistance specified in this section shall include the following:

(a) providing the Services until completion of the transition to the County or the Third Party Provider and cooperating with the County and its Third Party Providers to facilitate the transition of such Services from Provider to the County or the Third Party Provider, as the case may be, in as smooth a manner as is reasonably possible;

(b) providing access to the Provider Facilities as reasonably necessary for the County or a Third Party Provider to perform its work;

(c) providing access to the Equipment and Software as reasonably necessary for the County or a Third Party Provider to perform its work, but only to the extent permitted under Provider's underlying agreements with Third Parties;

(d) providing all data and any other information as the County and the Third Party Provider may reasonably request (including County Data);

(e) converting files and data to the format reasonably required by the County;

(f) with respect to the County-specific knowledge, providing technical support reasonably required by the County including knowledge transfer and access to knowledge management systems and knowledge repositories maintained by Provider as part of the Services;

(g) providing operational data (e.g., documentation, run books, schedules, and service levels provided), as well as performance data regarding the Equipment and Software, reasonably required by the County; and

(h) providing such other services set forth in Attachment E (Exit Assistance), but only with respect to the Services to be transitioned to the County or a Third Party Provider under this Section 3.5.

3.6. Excused Performance. Provider will be relieved from performing its obligations pursuant to this Agreement only if, and only to the extent that: (a) Provider's non-performance results directly from the County's failure to perform the County Responsibilities or from the County's acts that affirmatively interfere with Provider's performance of its obligations, and (b) Provider provides the County with reasonable written notice of such non-performance of a County Responsibility, and (c) Provider uses Commercially Reasonable Efforts to perform notwithstanding the County's failure to perform the County Responsibilities.

4. ASSETS

4.1. Generally.

4.1.1. Other than as otherwise expressly set forth in this Agreement, Provider will provide all facilities, hardware, software, tools, personnel and other resources required for it to provide the Services in accordance with the terms and conditions of this Agreement, including the Performance Standards, at whatever volumes are required by the County.

4.1.2. Without limiting the generality of Section 4.1.1, Provider will upgrade and replace the Provider-Provided Software so that (a) there is no Provider-Provided Software with respect to which there have been more than one (1) subsequent Major Release, and (b) there is no unsupported Provider-Provided Software used to perform the Services, and Provider will work with the County to determine the best time to make such upgrades and replacements. Provider will otherwise upgrade, replace, and otherwise

refresh the and Provider-Provided Software as required in order to perform the Services in accordance with this Agreement.

4.2. Provider Owned or Leased Facilities.

4.2.1. Provider will perform the Managed Services only from Approved Facilities; provided, however, that that individual Provider Personnel who are routinely work remotely (e.g., mobile employees or employees working from home) may also be utilized to provide the Services hereunder from remote locations. During the Term, Provider may not migrate the Services from the Approved Facilities without the County's approval. The County may grant or withhold approvals under this Section 4.2.1 in its sole discretion.

4.2.2. Provider will maintain the Approved Facilities in reasonable and appropriate condition and sufficient in all respects for the performance of the Services. Without limiting the generality of the foregoing, Provider will maintain such Approved Facilities in at least as current and robust a condition as at the Effective Date, and otherwise as required to meet the Performance Standards.

4.2.3. If Provider desires during the Term to migrate all or part of the Services to a location other than one of those approved by the County as of the Effective Date, then Provider will:

(a) obtain the County's preliminary, conditional approval to such migration before taking any other steps;

(b) if the County provides its preliminary tentative approval of the migration, deliver the Migration Plan;

(c) include in the Migration Plan detailed back-out and contingency plans to be executed in the event of any failure during the migration;

(d) be responsible for any increase in its fees associated with the migration unless and to the extent such migration has been required by the County. Provider will reimburse (through direct payment and/or reduced Fees) the County for any increase in the County's costs (including retained costs) arising from or in connection with the migration unless and to the extent such migration has been required by the County;

(e) in consultation with the County, and subject to the County's review and approval, develop plans for comprehensive migration testing. Such plans will, among other things, require that Provider perform all necessary tests. Provider will not migrate any work prior to successful testing of the location to which the Services are to be migrated;

(f) if the County approves the Migration Plan, complete the migration in accordance with the time schedule specified in the Migration Plan, and

continue to perform the Services without degradation of the Services or Performance Standards; and

(g) without limiting the generality of Section 4.2.3(f), monitor the migration, document and promptly report to the County any problems encountered, and promptly resolve such problems.

4.3. Compliance with Terms. To the extent that the County provides Provider with access to or use of leased Equipment, licensed Software for which the County retains legal responsibility, Provider shall comply with all obligations of which Provider has been informed under leases for such Equipment, Software licenses. Any such Equipment and Software, as well as any other Equipment owned by the County or its Third Party vendor and made available for Provider's use in performing the Services, is made available to Provider by the County or an "as is, where is" basis, without representations or warranties of any kind, except that County-provided software shall be provided with its licensed warranties. Provider shall not use any of the Equipment or Software referred to in this Section 4.3 except for the purpose of performing the Services.

5. COMPLIANCE WITH LAWS

5.1. Compliance. Subject to Sections 5.2, 5.3, and 5.4, (a) the County will be responsible for compliance with all Laws applicable to the County and its operations and activities ("County Laws"), and (b) Provider will be responsible for compliance with all Provider Laws, which specifically includes Laws applicable to the manner in which the Services are performed and privacy and security Laws to which any processor of County Data is subject. Each Party will perform its obligations under this Agreement in accordance with all applicable Laws, as they may change from time to time.

5.2. Licenses, Authorizations and Permits; Export Controls.

5.2.1. Provider will be responsible for obtaining all licenses, authorizations, permits and the like required by Provider Laws which Provider is required to have in order to perform the Services. Provider will be responsible for any fees, costs or expenses arising out of its compliance with this Section 5.2.1.

5.2.2. Subject to Section 5.2.3, each Party will comply with the U.S. export control and economic sanction Laws that are applicable to its performance or receipt of the Services.

5.2.3. To the extent that its activities hereunder are subject to U.S. export control and economic sanction Laws, Provider will be responsible for obtaining all necessary export authorizations and licenses for export of technical information or data, including, as applicable, the County Data, Software and/or Applications (a) between or among Provider's Affiliates, (b) from Provider or its Affiliates to Subcontractors, and (c) from Subcontractors to the Provider or its Affiliates, in each case as specified in or contemplated by this Agreement.

5.2.4. The Parties will jointly develop a process to identify any information needed for obtaining all necessary export authorizations and licenses for the export of County Data, as addressed in Section 5.2.3, including all relevant export authorizations, export and import data, and the Export Classifications Control Number (“ECCN”) and subheadings.

5.3. Fines and Penalties. Provider will be solely responsible for any fines and penalties imposed on Provider and/or the County to the extent resulting from Provider’s failure to comply with the provisions of this Section 5 or any Provider Laws.

5.4. Changes to Law. Provider shall monitor, and promptly notify the County if it becomes aware of, changes in Provider Laws that would require changes to the Services or to Equipment, Software, or processes used by Provider to provide the Services. With the County’s prior approval, Provider shall promptly implement such changes, which shall not be treated as New Services and therefore shall not result in any increase to the Fees. Changes to the Services attributable to Changes in Law that apply to the operations and activities of Illinois county governments shall be subject to the SOW Change Control Process set forth in Schedule 1 – Relationship Management; provided, however, that any such change shall be subject to additional Fees only to the extent Provider can demonstrate it will incur new and additional labor, software or equipment costs.

5.5. Non-Compliance. If either Party is charged with non-compliance of any Laws which non-compliance will or reasonably could (a) affect the ability of such Party to perform its obligations hereunder, or (b) expose the other Party to legal liability as a result of such non-compliance, the Party charged with such non-compliance shall promptly notify the other Party of such charges in writing.

6. COUNTY RESPONSIBILITIES

6.1. County Responsibilities. The County will be responsible for performing the County Responsibilities as defined in the Statements of Work.

6.2. No Other Obligations. Except for the County Responsibilities, the County has no other obligations upon which Provider is dependent with respect to Provider’s performance of the Services or this Agreement. For purposes of clarity, this Section 6.2 shall not limit the County’s other responsibilities under this Agreement (e.g., obligations of confidentiality) which are not required for Provider to perform the Services.

7. REQUIRED CONSENTS

7.1. Required Consents for Assets in Use and Third Party Contracts as of the Effective Date. Provider and the County will work together to obtain any consents required to secure any rights of use of or access to any of the County’s Assets (including Equipment leased to the County, and Software licensed to the County) and Third Party Contracts required by Provider to provide the Services (“Required Consents”).

7.2. Alternatives. If the Parties are unable to obtain a Required Consent, the Parties shall work together to implement alternative approaches as necessary to provide the Services in accordance with the Statements of Work without such Required Consents.

8. PROPRIETARY RIGHTS

8.1. County Intellectual Property. The County retains all right, title and interest in and to all County Intellectual Property and County IP Materials. To the extent the County may grant such license, Provider is granted a worldwide, fully paid-up, nonexclusive license during the Term to use, copy, maintain, modify, enhance and create derivative works of the County Intellectual Property and related County IP Materials that are necessary for providing the Services for the sole purpose of providing the Services pursuant to this Agreement. Provider shall not be permitted to use any of the County Intellectual Property or County IP Materials for the benefit of any entities other than the County. Provider shall cease all use of the County Intellectual Property and County IP Materials upon expiration or termination of this Agreement. Upon expiration or termination of this Agreement or relevant Services under this Agreement, Provider shall return to the County all the County Intellectual Property, County IP Materials and copies thereof possessed by Provider.

8.2. Developed Intellectual Property. As between the Parties, the County shall have all right, title and interest in all Intellectual Property as well as any IP Materials conceived, developed, authored or reduced to practice in the course of or in connection with the provision of the Services, including, but not limited to: (a) modifications to, or enhancements (derivative works) of, the County Intellectual Property or the County IP Materials; (b) newly developed software, documentation, training materials, or other IP Materials that do not modify or enhance then existing County IP Materials; and (c) modifications to or enhancements (derivative works) of Third Party Software or related IP Materials to the extent not owned by the licensor of the Third Party Software under the terms of the applicable license (the "Developed Intellectual Property"). Provider hereby irrevocably and unconditionally assigns, transfers and conveys to the County without further consideration all of its right, title and interest in such Developed Intellectual Property, including all rights of patent, copyright, trade secret or other proprietary rights in such materials, which assignment shall be effective as of the creation of such works without need for any further documentation or action on the part of the Parties. Provider agrees to execute any documents or take any other actions as may reasonably be necessary, or as the County may reasonably request, to perfect the County's ownership of any such Developed Intellectual Property. Provider shall secure compliance with this Section 8.2 by any Provider Personnel involved directly or indirectly in the provision of Services under this Agreement.

8.3. Provider Intellectual Property. Provider retains all right, title and interest in and to Intellectual Property and IP Materials (collectively, the "Provider Materials") that Provider developed before or independently of this Agreement. Provider hereby grants the County the Post-Termination Rights as described in Attachment E (Exit Assistance) to the Provider Materials used by it in connection with the performance of the Services. Any Provider or Third Party standard commercial hardware or software products shall be provided in accordance with their standard commercial terms including applicable license agreements.

8.4. Third Party Intellectual Property. Provider shall not introduce into the County's environment any Third Party Intellectual Property or otherwise use such Third Party Intellectual Property to provide the Services without first obtaining for the County the Post-Termination Rights, or in the absence thereof, obtaining the prior written consent from the County Director of ERP, which the County may give or withhold in its sole discretion. A decision by the County to withhold its consent shall not relieve Provider of any obligation to provide the Services.

8.5. Residual Knowledge. Nothing contained in this Agreement shall restrict either Party from the use of any ideas, concepts, know-how, methodologies, processes, technologies, algorithms or techniques relating to the Services which either Party, individually or jointly, develops or discloses under this Agreement, provided that in doing so such Party does not breach its obligations under Section 9 or infringe the Intellectual Property rights of the other Party or Third Parties who have licensed or provided materials to the other Party. Except for the license rights contained in this Section 8, neither this Agreement nor any disclosure made hereunder grants any license to either Party under any Intellectual Property rights of the other Party.

9. CONFIDENTIALITY

9.1. Confidentiality.

9.1.1. Acknowledgment of Importance of Confidential Information. Each Party acknowledges that, in connection with this Agreement, it may receive ("Receiving Party") Confidential Information of the other Party ("Disclosing Party") and, where applicable, Third Party proprietors of such information party. Receiving Party acknowledges the importance of the Confidential Information to the Disclosing Party, and recognizes that the a Disclosing Party may suffer irreparable harm or loss in the event of such information being disclosed or used otherwise than in accordance with this Agreement.

9.1.2. Non-Disclosure. Receiving Party agrees:

(a) except as permitted by this Agreement, not to disclose or publish any Confidential Information of the Disclosing Party in any manner, for any reason or purpose whatsoever other than as required for the provision and receipt of the Services without the prior written consent of the Disclosing Party;

(b) notwithstanding the foregoing, Disclosing Party may disclose such information to one or more Third Parties and/or their advisors, including their subcontractors, attorneys, accountants and auditors, to the extent required hereunder where:

(i) such Third Party is performing services related to and in accordance with this Agreement;

(ii) such disclosure is reasonably necessary or otherwise naturally occurs in that Third Party's scope of responsibility; and

(iii) the Third Party agrees to assume confidentiality obligations at least as restrictive as the obligations described in this Section 9; and

(iv) Provider obtains an executed copy of the County's standard form of confidentiality agreement from any Subcontractors prior to their performance of any Services under this Agreement.

(c) except as permitted by this Agreement, not to utilize, employ, exploit or in any other manner whatsoever use the Disclosing Party Confidential Information for any purpose whatsoever other than as required for the provision and receipt of the Services without the prior written consent of the Disclosing Party; *provided, however*, in the event that the Disclosing Party Confidential Information is also proprietary to a Third Party and the Disclosing Party advises the Receiving Party of that fact, it shall also be incumbent on Receiving Party to obtain the consent of such Third Party;

(d) to restrict the dissemination of the Disclosing Party Confidential Information only to those of its personnel who are actively involved in activities for which use of such Confidential Information is authorized, and then only on a 'need to know' basis;

(e) to maintain and monitor internal security procedures and monitor their application; and

(f) to take reasonable steps, both before and after disclosure, to impress upon its personnel who are given access to Disclosing Party Confidential Information the secret and confidential nature thereof.

9.1.3. Exceptions. Disclosing Party Confidential Information shall not include any information: (a) already in the possession of Receiving Party without obligation of confidentiality, (b) developed independently by Receiving Party without use of or reference to any Disclosing Party Confidential Information, (c) obtained by Receiving Party from a source other than the Disclosing Party without obligation of confidentiality, or (d) publicly available when received by Receiving Party, or that subsequently becomes publicly available through no fault of Receiving Party or third party wrongdoing.

9.1.4. Further Acknowledgments. Receiving Party acknowledges that all Disclosing Party Confidential Information is proprietary to the Disclosing Party or, where applicable, the relevant Third Party proprietor. Receiving Party also acknowledges that nothing in this Agreement confers any rights or license to Disclosing Party Confidential Information on Receiving Party except as expressly provided herein to perform or receive the Services.

9.1.5. Standard of Care. Receiving Party shall protect the Disclosing Party Confidential Information with at least the same degree of care that it employs to prevent unauthorized disclosure of its own confidential information of a similar nature. In no event shall Provider use less than Commercially Reasonable Efforts to protect the confidentiality of County Confidential Information.

9.1.6. Return of County Confidential Information. The Disclosing Party may at any time require that the Receiving Party promptly return to the Disclosing Party, or destroy, any Disclosing Party Confidential Information in Receiving Party's possession. In addition, the Disclosing Party may at any time require that Receiving Party furnish a written statement to the effect that upon such return it has not retained in its possession or under its control, either directly or indirectly, any such Confidential Information or material (other than an archival copy but only to the extent required by applicable Law). Provider shall be relieved from its obligation to perform any Service to the extent the return of any County Confidential Information at the County's request under this Section 9.1.6 materially impacts Provider's ability to perform such Service; provided, that Provider gives the County notice of the impact of the return and continues to use Commercially Reasonable Efforts to perform.

9.1.7. Disclosure Required by Law, Regulation or Court Order. In the event that Receiving Party is required to disclose Disclosing Party Confidential Information in accordance with a requirement or request by operation of Law, regulation or court order, shall:

- (a) advise the Disclosing Party thereof prior to disclosure, if possible;
- (b) take such steps to limit the extent of the disclosure to the extent lawful and reasonably practical;
- (c) afford the Disclosing Party a reasonable opportunity, if possible, to intervene in the proceedings; and
- (d) to the extent permitted and feasible, comply with the Disclosing Party's requests as to the manner and terms of any such disclosure.

9.1.8. Loss of Disclosing Party's Confidential Information. In the event of any disclosure or loss of, or inability to account for, any Confidential Information of Disclosing Party, Receiving Party shall promptly, at its own expense:

- (a) notify the Disclosing Party in writing;
- (b) take such actions as may be necessary or reasonably requested by the Disclosing Party to minimize the violation; and
- (c) cooperate in all reasonable respects with the Disclosing Party to minimize the violation and any damage resulting therefrom.

9.1.9. Survival. Receiving Party's obligations of non-disclosure and confidentiality with respect to Confidential Information of Disclosing Party shall survive the expiration or termination of this Agreement for a period of eight (8) years from the later of (a) the expiration or termination of this Agreement (including any Exit Assistance Period), or (b) the return or destruction of Disclosing Party's Confidential Information in accordance with Section 9.1.6.

9.2. Undertakings With Respect To Personnel.

9.2.1. Receiving Party acknowledges and agrees that it is responsible for the maintenance of the confidentiality of the Disclosing Party's Confidential Information by Receiving Party's personnel. Without limiting the generality of the foregoing, Receiving Party shall undertake to inform all of its personnel of its obligations with respect to the Disclosing Party's Confidential Information.

9.2.2. Provider shall comply with, and shall ensure that all Provider Personnel comply with, all security measures imposed by the County and provided to Provider regarding security and access to the County Facilities.

9.2.3. The County shall be entitled to deny any Provider Personnel access to the County Facilities or IT systems should the County have a good faith concern that the person has misused or permitted or facilitated the misuse of the County Confidential Information. The County shall promptly notify Provider in writing of any denial of access under this Section 9.2.3 and provide Provider a reasonably detailed explanation therefor to the extent reasonably practical. In the event that Provider desires that the County reconsider any such decision, the County shall promptly make appropriate personnel reasonably available to Provider to discuss the denial of access and the reasons therefor. Although the County shall consider Provider concerns in good faith and consider the results of any Provider investigation of the matter, the ultimate decision to maintain a denial of access shall be the County's in its sole discretion. Provider shall remain responsible for the performance of the Services notwithstanding the County's exercise of its rights under this Section 9.2.3.

9.3. Security and Data Protection. Without limiting of the foregoing provisions under this Section 9, each Party shall comply with their respective obligations with respect to the protection of the County Data as set forth in Attachment D (Security and Data Protection).

10. REPRESENTATIONS AND WARRANTIES

10.1. Illinois Law. Provider represents and covenants that (a) it is appropriately licensed under Illinois law to perform the Services required under this Agreement and will perform no services for which a professional license is required by law and for which Provider is not appropriately licensed; and (b) Provider and, to the best of its knowledge, all Provider Personnel are not in violation of the provisions of the Illinois Criminal Code, 720 ILCS 5/33E as amended.

10.2. Technology. Provider represents and covenants that Provider will provide the Services using proven, current technology that is intended to help the County to take advantage of technological advancements and support the County's efforts to provide efficient services to its Using Agencies.

10.3. Subcontractors. Provider represents and covenants that (a) it will not knowingly use the services of any ineligible Subcontractors for any purpose in the performance of its Services under this Agreement; (b) Provider and all Subcontractors are not in default at the time this Agreement is signed, and have not been considered by the Chief Procurement Officer to

have, within five (5) years immediately preceding the date of this Agreement, been found to be in default on any contract awarded by the County. For purposes of this Section 10.3, “ineligible” means not in compliance with the County Procurement Code and the rules promulgated thereunder.

10.4. Work Standards. Provider represents and covenants that it shall: (a) provide the Services in a workmanlike manner; (b) provide the Services with promptness and diligence and in accordance with the practices and professional standards used in well-managed operations performing services similar to the Services; and (c) use an adequate number of qualified individuals with suitable training, education, experience and skill to perform the Services.

10.5. Maintenance. Provider shall be operationally responsible to maintain the Equipment and Software it uses to provide the Services or with respect to which it provides the Services, so that they operate in accordance with their specifications, including: (a) maintaining such Equipment in good operating condition, subject to normal wear and tear; (b) undertaking repairs and preventative maintenance on such Equipment in accordance with the applicable Equipment manufacturer’s recommendations; and (c) performing Software maintenance in accordance with the applicable Software provider’s documentation and recommendations.

10.6. Provider Materials and Third Party Intellectual Property. Provider represents and covenants that it is the owner of, or is authorized to use, all Provider Materials and Provider-provided Third Party Intellectual Property.

10.7. Developed Software. Provider represents and covenants that any Software that it develops under this Agreement (including any modifications, enhancements, patches, upgrades or similar developments) (“Developed Software”) shall be free from material errors in operation and performance, shall comply with the applicable documentation and specifications set forth in the applicable Statement of Work in all material respects, for six (6) months after the installation, testing and acceptance of such Software by the County; provided, however, for Developed Software that executes on a monthly or less frequent basis (e.g., quarterly or annual cycle), such warranty period will commence on the date of first execution of such Software. Any repairs made which were the result of a Severity 1 or 2 Defect to Developed Software pursuant to this Section 10.7 shall receive a new six (6) month warranty period in accordance with the terms of this Section 10.7.

10.8. No Open Source. Provider represents and covenants that any Software provided by Provider under this Agreement and/or any Statement of Work do not and will not contain any “open source” code (as defined by the Open Source Initiative) or “free” code (as defined by the Free Software Foundation) (collectively, “Open Source Code”) except as provided by or at the direction of the County, nor operate in a manner that it is compiled with or linked to Open Source Code, without the County’s prior review and approval of the applicable license agreement. Unless otherwise agreed upon in writing by the County and Provider, the Developed Software as delivered or modified by Provider do not and will not interact with the County Software in such a way: (a) that would impose any requirements on how any County Software, or any portion thereof, is licensed to third parties, (b) that would create, or purport to create, obligations for the County with respect to any County Software, (c) that would grant, or purport

to grant, to any third party any rights to or immunities under the County's Intellectual Property or proprietary rights, or (d) that would have the effect of requiring that any County Software, or any portion thereof: (i) be disclosed or distributed in source code form, (ii) be licensed for the purpose of making derivative works, (iii) be redistributed at no charge, or (iv) be licensed under any open source or free software license or licensing scheme.

10.9. Compliance with Law and Regulations. Provider represents and covenants that it shall perform its obligations under this Agreement in accordance with all Provider Laws. Provider also represents and covenants that it shall identify, obtain, keep current, and provide for County's inspection, all necessary licenses, approvals, permits, authorizations, visas and the like as may be required from time to time under Provider Laws for Provider to perform the Services.

10.10. Viruses. Provider shall not provide any Software in connection with performing the Services that uses any hidden files, automatically replicating, transmitting or activating computer program, virus (or other harmful or malicious computer program), or any Equipment-limiting, Software-limiting or Services-limiting function (including, but not limited to, any key, node lock, time-out or similar function), whether implemented by electronic or other means (collectively, "Illicit Code"). For purposes of this provision, Software code necessary for, and limited to, ensuring license compliance for such Software (including passwords) shall not be deemed to be "Illicit Code" provided that Provider shall not invoke or cause to be invoked such code other than as previously disclosed to County.

10.10.1. Provider shall not introduce, invoke or cause to be invoked such Illicit Code in any County IT environment at any time, including upon expiration or termination of this Agreement for any reason, without the County's prior written consent.

10.10.2. If Provider discovers that Illicit Code has been introduced into Software residing on Equipment hosted or supported by County, Provider shall, at no additional charge, (a) immediately undertake to remove such Illicit Code, (b) promptly notify the County in writing of the introduction, and (c) use Commercially Reasonable Efforts to correct and repair any damage to data or Software caused by such Illicit Code and otherwise assist the County in mitigating such damage and restoring any affected Service, Software or Equipment.

10.11. Absence of Litigation. Provider represents and warrants that, as of the Effective Date, there is no outstanding claim, litigation, proceeding, arbitration, investigation or material controversy to which Provider is a party which, if successful, Provider reasonably expects would have a material adverse effect on Provider's ability to enter into this Agreement or to provide the Services.

10.12. Authorization and Other Contracts.

10.12.1. Provider represents and covenants that it has all requisite corporate power and authority to enter into this Agreement, to deliver the Services specified by this Agreement, and to fulfill all of its other obligations under this Agreement.

10.12.2. Provider represents and covenants that its execution and delivery of this Agreement, and the performance of its obligations hereunder, does not violate any

judgment, order or decree and would not constitute a material default under any of its existing contracts.

10.13. Affidavits. Provider acknowledges that any certification, affidavit or acknowledgment made under oath in connection with this Agreement is made under penalty of perjury and, if knowingly false, is also cause for termination under Section 15.1.

10.14. Ethics. Provider represents and covenants that (a) no officer, agent or employee of the County is employed by Provider in any capacity related to this Agreement or has a financial interest directly or indirectly in this Agreement or the compensation to be paid under this Agreement except as may be permitted in writing by the County Board of Ethics or as permitted under the Cook County Ethics Ordinance; and (b) no payment, gratuity or offer of employment has been or will be made in connection with this Agreement by or on behalf of any Provider Personnel to Provider or anyone associated with them, as an inducement for the award of a subcontract or order.

10.15. Resale of Equipment and Software. If Provider resells to the County any Equipment or Software that Provider purchased from a Third Party, then Provider, to the extent it is legally able to do so, shall pass through any such Third Party warranties to the County and will reasonably cooperate in enforcing them. Such warranty pass-through will not relieve Provider from Provider's warranty obligations set forth in this Section 10.

10.16. Disclaimer. EXCEPT AS OTHERWISE SET FORTH IN THIS AGREEMENT, NEITHER THE COUNTY NOR PROVIDER MAKES ANY OTHER REPRESENTATIONS OR WARRANTIES IN RESPECT OF THE SERVICES OR ANY SOFTWARE OR EQUIPMENT, AND EACH EXPLICITLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTORY QUALITY AND FITNESS FOR A PARTICULAR PURPOSE.

11. INSURANCE AND RISK OF LOSS

11.1. Insurance Coverage. Provider shall at all times during the Term comply with the insurance requirements set forth in Attachment G (Required Insurance Coverage).

12. INDEMNITIES

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14. DISPUTE RESOLUTION

14.1. General. Any claim or dispute between the Parties (including, as applicable for each Party, its respective Affiliates and Subcontractors) arising out of or relating to this Agreement (including the Services and any breach of this Agreement) (a "Dispute") shall be resolved as set forth in Section 14 of Schedule 1 (Relationship Management).

14.2. Governing Law This Agreement and performance under it shall be governed by and construed in accordance with the laws of the State of Illinois without regard to any provision of Illinois law or any other law that would require or permit the application of the substantive law of another jurisdiction.

14.3. Exclusive Venue. Provider irrevocably agrees that, subject to the County's sole and absolute election to the contrary, any action or proceeding in any way, manner or respect arising out of this Agreement, or arising from any Dispute or controversy arising in connection with or related to this Agreement, shall be litigated only in courts within the Circuit Court of Cook County, State of Illinois, and Provider consents and submits to the jurisdiction thereof. In accordance with these provisions, Provider waives any right it may have to transfer or change the venue of any litigation brought against it by the County pursuant to this Agreement.

14.4. Continued Performance. Subject, in the case of the County, to the County's right to withhold amounts it disputes in good faith pursuant to Section 5.3 of Schedule 3 (Fees), each Party shall continue performing its obligations under this Agreement while any Dispute is being resolved except to the extent that the issue in dispute precludes performance. The timeframe for a Party to cure any breach of this Agreement shall not be tolled by the pendency of any dispute resolution proceedings.

15. TERMINATION

15.1. Termination for Cause by the County.

15.1.1. The County may terminate this Agreement, in whole or in part, upon notice to Provider if Provider (each, an "Event of Default"):

- (a) materially breaches this Agreement; or
- (b) becomes disqualified from doing business with the County pursuant to Section 34-170 of the Cook County Procurement Code; or
- (c) commits numerous breaches of its duties or obligations under this Agreement (whether such failures occur simultaneously or over time, whether or not any such failure is material, and whether or not any such failure was cured), for which the County has provided Provider notice of such failures, which, when taken together in the aggregate, constitute a material breach of this Agreement; or
- (d) commits repeated or continued violations of County ordinances unrelated to performance under the Agreement that in the opinion of the Chief Procurement Officer indicate a willful or reckless disregard for County laws and

regulations to the extent permitted under Cook County Procurement Code or any County Ordinances.

For purposes of Section 15.1.1(a), it shall be deemed a material breach of this Agreement by Provider if: (i) Provider fails to meet the same SLA for three (3) consecutive months; (ii) Provider fails to meet the same SLA for four (4) months, not necessarily consecutive, in any period of eight (8) consecutive months; or (iii) for four (4) consecutive months, the Fee Reductions assessed equal the Amount at Risk with respect to each month in the period.

15.1.2. The occurrence of any Event of Default permits the County, at the County's sole option, to declare Provider in breach of this Agreement. The Chief Procurement Officer may, in his or her sole discretion, give Provider an opportunity to cure the breach within a certain period of time, which period of time will not exceed thirty (30) days, unless extended by the Chief Procurement Officer. The decision whether to declare Provider in breach of this Agreement is within the sole discretion of the Chief Procurement Officer and neither that decision nor the factual basis for it is subject to review or challenge under the disputes provision of Schedule 1 (Relationship Management) of this Agreement.

15.1.3. The Chief Procurement Officer will give Provider written notice of any Event of Default, either in the form of a cure notice ("Cure Notice"), or, if no opportunity to cure will be granted, a default notice ("Default Notice"). If the Chief Procurement Officer gives a Default Notice, he or she will also indicate any present intent to terminate this Agreement, and the decision to terminate (but not the decision not to terminate) is final and effective upon giving the notice. The Chief Procurement Officer may give a Default Notice if Provider fails to effect a cure any breach within the cure period given in a Cure Notice. When a Default Notice with intent to terminate is given as provided in this Section 15.1.3, Provider must discontinue any Services, unless otherwise directed in the notice (subject to any obligation to provide Exit Assistance Services), and deliver all County Confidential Information, Developed Intellectual Property, Developed Software or any other information or materials accumulated in the performance of this Agreement, whether completed or in the process, to the County.

15.1.4. After providing a Default Notice, the County may invoke any or all of the following remedies:

(a) The right to take over and complete the Services, or any part of them, at Provider's expense, either directly or through others, and bill Provider for the cost of such Services and, in such instance, Provider must pay the difference between the total amount of this bill and the amount the County would have paid Provider under the terms and conditions of this Agreement for the Services that were assumed by the County under this Section 15.1.4(a);

(b) The right to terminate this Agreement as to any or all of the Services yet to be performed effective at a time specified by the County;

- (c) The right to seek specific performance, an injunction or any other appropriate equitable remedy;
- (d) The right to money damages;
- (e) The right to withhold all or any part of the Fees under this Agreement; or
- (f) The right to consider Provider non-responsible in future contracts to be awarded by the County.

15.1.5. If the Chief Procurement Officer considers it to be in the County's best interests, he or she may elect not to declare default or to terminate this Agreement. The Parties acknowledge that this Section 15.1 is solely for the benefit of the County and that if the County permits Provider to continue to provide the Services despite one or more Events of Default, Provider is in no way relieved of any of its responsibilities, duties or obligations under this Agreement, nor does the County waive or relinquish any of its rights.

15.1.6. If the County chooses to terminate this Agreement in part, the Fees payable under this Agreement shall be equitably adjusted to reflect only Fees associated with the continuation of those Services that are not terminated.

15.1.7. In the event of a termination pursuant to this Section 15.1, the County shall have no liability for any Termination for Convenience Fees pursuant to Section 15.4.

15.2. Termination Upon Sale, Acquisition, Merger or Change of Control, or For Change in Financial Condition. The County may terminate this Agreement in its sole discretion upon thirty (30) days' notice to Provider in the event (a) of a change in Control of Provider where such Control is acquired, directly or indirectly, in a single transaction or series of related transactions, or all or substantially all of the assets of Provider are acquired by any entity in a single or series of related transactions, or Provider is merged with or into another entity, or Provider enters into a definitive agreement to enter into any such a transaction or series of transactions), or (b) that any of the major Nationally Recognized Statistical Ratings Organizations assigns a rating to Provider's senior unsecured debt or issuer rating below BBB/Baa2 . In the event of a termination pursuant to this Section 15.2, the County shall have no liability for any Termination for Convenience Fees pursuant to Section 15.4).

15.3. Termination for Cause by Provider.

15.3.1. Provider may terminate this Agreement if, and only if, the County fails to make any payment when due and fails to cure such failure within forty-five (45) days after the County's receipt of first notice of termination from Provider; *provided, however*, that, if the County fails to cure such failure, Provider may not terminate without first providing a second notice of termination and fifteen (15) day cure period; and further provided, that any notice of termination pursuant to this Section 15.3.1 must (i) be delivered to the County's Director of ERP in addition to those persons set forth in

Section 16.12, and (ii) must unambiguously reflect Provider's intent to terminate this Agreement pursuant to this Section 15.3.1, the effective date of termination, and the date on which payment is due in order to avoid such termination. Any such notice shall be deemed ineffective notice if it does not comply with both (i) and (ii) hereof.

15.3.2. Provider shall have no other right to terminate this Agreement or to Abandon provision of any of the Services; *provided, however*, that if the amount of Fees unpaid under properly issued invoices and in dispute exceeds \$250,000, the County shall deposit such excess amounts in an escrow account pending resolution of the applicable Disputes, the proceeds of which will then be distributed in accordance with the resolution of the Dispute and any amounts so deposited shall not be subject to the termination right set forth in this Section 15.3.2.

15.3.3. No other failure by the County to perform any of its responsibilities set forth in this Agreement shall be deemed to be grounds for termination or Abandonment of the Services by Provider.

15.4. Termination for Convenience.

15.4.1. The County may terminate this Agreement for convenience, in whole or in part, upon not less than one hundred eighty (180) days written notice designating the termination date.

15.4.2. If a purported termination by the County under Section 15.1 is determined by a competent authority not to be properly a termination under Section 15.1, then such termination may be deemed to be a termination for convenience under this Section 15.4.

15.4.3. Upon the effective date of such termination for convenience, the County shall pay Provider the Termination For Convenience Fee set forth in Appendix 3-2 (Termination For Convenience Fees)) applicable as of such date. The County shall have no other liability for such a termination for convenience.

15.4.4. Provider must include in its contracts with Subcontractors a termination for convenience provision in form and substance equivalent to this Section 15.4. Provider will not be entitled to make any early termination claims against the County resulting from any Subcontractor's claims against Provider or the County to the extent inconsistent with this Section 15.4.

15.5. Service Suspension.

15.5.1. The County may in the event of an emergency request that Provider suspend the performance of the Services, or any part of them. The County shall not be liable for any Fees for the affected Services incurred after the effective date of and during such suspension. Provider must promptly resume its performance of the Services under the same terms and conditions as stated in this Agreement upon written notice by the Chief Procurement Officer. Such Service resumption shall allow for reasonable time periods for personnel matters and service levels to be resumed. Notwithstanding, for a suspension greater than fifteen (15) days, the provisions related to Key personnel shall be

suspended. Any such equitable extension of the Term may be mutually agreed upon by the Chief Procurement Officer and Provider when necessary for continuation or completion of Services. County shall be responsible for any reasonable, documented costs or expenses actually incurred by Provider as a result of the suspension or recommencing the Services.

15.5.2. No suspension of this Agreement is permitted in the aggregate to exceed a period of forty-five (45) days within any one (1) year period during the Term of this Agreement. If the total number of days of suspension exceeds forty-five (45) days within any one (1) year period during the Term of this Agreement, Provider by written notice may treat the suspension as a termination for convenience pursuant to Section 15.4.

15.6. Termination for Force Majeure. The County may terminate this Agreement, in whole or in part, in connection with a Force Majeure Event pursuant to Section 13.3.2(b). In the event of a termination pursuant to this Section 15.6, the County shall have no liability for any Termination for Convenience Fees pursuant to Section 15.4.

15.7. Termination for Non-Appropriation of Funds. Provider acknowledges that the Services are contingent on budgetary funding from the annual County budget. Funding may be allocated in phases over several fiscal years. In the event sufficient funds are not appropriated for the payments required to be made under the Agreement in future fiscal years, the County has exhausted all funds legally available for payments to become due under this Agreement, funds which have been appropriated for purposes of this Agreement are withheld and are not made available to County, or an appropriation of funds for the next fiscal years has been made for purposes of this Agreement, but prior to actual release, such appropriation has been withdrawn, then the County at its sole discretion may terminate the Agreement at the end of the then-current fiscal year, as the case may be without penalty or additional expense of any kind whatsoever. If no funds or insufficient funds are appropriated and budgeted in any fiscal period of the County for payments to be made under this Agreement, then the County will notify Provider in writing of that occurrence, and this Agreement will terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Agreement are exhausted. The County will use commercially reasonable efforts to provide Provider with advance notice of any substantial risk to the appropriations required to make payments required under this Agreement. Notwithstanding anything in the Agreement to the contrary, this non-appropriation provision shall survive termination of the Agreement. In the event of a termination pursuant to this Section 15.6, the County shall have no liability for any further fees, charges or expenses of any kind.

15.8. Extension of Termination Date. The County shall have one option to elect, not later than ninety (90) days prior to expiration or termination of this Agreement, to require that Provider shall continue to provide some or all of the Managed Services for a fixed term up to one hundred eighty (180) days following the effective date of expiration or termination of this Agreement on the terms and conditions then in effect.

15.9. Exit Assistance. In the event of the expiration or termination of this Agreement in whole or in part, Provider shall, upon the County's request, perform the services, tasks and functions described in Attachment E (Exit Assistance).

16. GENERAL

16.1. Minority and Women's Business Enterprises Commitment. In the performance of this Agreement, including the procurement and lease of materials or Equipment, Provider must abide by the minority and women's business enterprise commitment requirements of the Cook County Ordinance, (Article IV, Section 34-267 through 272) except to the extent waived by the County Compliance Director. Provider's completed MBE/WBE Utilization Plan evidencing its compliance with this requirement are a part of this Agreement, in Section 1 of the Economic Disclosure Statement, upon acceptance by the County Compliance Director. Provider must utilize minority and women's business enterprises at least in the amounts committed to by Provider for this Agreement in accordance with Section 1 of the Economic Disclosure Statement.

16.2. Joint and Several Liability. If Provider, or its successors or assigns, if any, is comprised of more than one legal entity (or a combination of them), then under this Agreement, each and without limitation every obligation or undertaking in this Agreement to be fulfilled or performed by Provider is the joint and several obligation or undertaking of each such individual or other legal entity.

16.3. Business Documents. At the request of the County, Provider must provide copies of its latest articles of incorporation, by-laws and resolutions, that are publicly available.

16.4. Conflicts of Interest.

16.4.1. No member of the governing body of the County or other unit of government and no other officer, employee or agent of the County or other unit of government who exercises any functions or responsibilities in connection with the Services to which this Agreement pertains is permitted to have any personal interest, direct or indirect, in this Agreement, except as permitted under the Cook County Ethics Ordinance. No member of or delegate to the Congress of the United States or the Illinois General Assembly and no Commissioner of the Cook County Board or County employee is allowed to be admitted to any share or part of this Agreement or to any financial benefit to arise from it, except as permitted under the Cook County Ethics Ordinance.

16.4.2. Provider covenants that it, and to the best of its knowledge, its and all Provider Personnel (collectively, "Consulting Parties"), presently have no direct or indirect interest and will not acquire any interest, direct or indirect, in any project or contract that would conflict in any manner or degree with the performance of its Services under this Agreement.

16.4.3. Without limiting the foregoing, if the Provider assists the County in preparing, drafting or issuing a request for proposals or bid specifications for a project, the Provider must not participate, directly or indirectly, as a prime, subcontractor or joint venturer in that project or in the preparation of a proposal or bid for that project during the term of this Agreement or afterwards. The Provider may, however, assist the County in reviewing the proposals or bids for the project if the Provider does not have a relationship with the persons' or entities that submitted the proposals or bids for that project.

16.4.4. The Provider further covenants that, in the performance of this Agreement, no person having any conflicting interest will be assigned to perform any Services or have access to any County Confidential Information. If the County, by the Chief Procurement Officer in his or her reasonable judgment, determines that any of Provider's Services for others conflict with the Services Provider is to render for the County under this Agreement, Provider must immediately stop work for the County on the assignment causing the conflict and notify the County.

16.4.5. Furthermore, if any federal funds are to be used to compensate or reimburse Provider under this Agreement, Provider represents that it is and will remain in compliance with federal restrictions on lobbying set forth in Section 319 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990, 31 U.S.C. § 1352, and related rules and regulations set forth at 54 Fed. Reg. 52,309 ff. (1989), as amended. If federal funds are to be used, Provider must execute a Certification Regarding Lobbying, which will be attached as an exhibit and incorporated by reference as if fully set forth here.

16.5. Non-Liability of Public Officials. Provider and any assignee or Provider Personnel must not charge any official, employee or agent of the County personally with any liability or expenses of defense or hold any official, employee or agent of the County personally liable to them under any term or provision of this Agreement or because of the County's execution, attempted execution or any breach of this Agreement.

16.6. Consents and Approvals. Except where expressly provided as being in the sole discretion of a Party, where agreement, approval, acceptance, consent, or similar action by either Party is required under this Agreement, such action shall not be unreasonably delayed or withheld. An approval, acceptance, consent or similar action by a Party (including of a plan or deliverable) under this Agreement shall not relieve the other Party from responsibility for complying with any requirements of this Agreement not affected by such approval, acceptance, consent or similar action, nor shall it be construed as a waiver of any rights under this Agreement, except as and to the extent otherwise expressly provided in such approval or consent. An agreement, approval, acceptance, consent or similar action by either Party shall not be effective unless in writing.

16.7. No Collateral Agreements. Provider acknowledges that, except only for those representations, statements or promises expressly contained in this Agreement and any exhibits attached to it and incorporated by reference in it, no representation, statement or promise, oral or in writing, of any kind whatsoever, by the County, its officials, agents or employees, has induced Provider to enter into this Agreement or has been relied upon by Provider, including any with reference to: (a) the meaning, correctness, suitability or completeness of any provisions or requirements of this Agreement; (b) the nature of the Services to be performed; (c) the nature, quantity, quality or volume of any materials, Equipment, labor and other facilities needed for the performance of this Agreement; (d) the general conditions which may in any way affect this Agreement or its performance; (e) the compensation provisions of this Agreement; or (f) any other matters, whether similar to or different from those referred to in (a) through (f) immediately above, affecting or having any connection with this Agreement, its negotiation, any discussions of its performance or those employed or connected or concerned with it.

16.8. No Omissions. Provider acknowledges that Provider was given an opportunity to review all documents forming this Agreement before signing this Agreement in order that it might request inclusion in this Agreement of any statement, representation, promise or provision that it desired or on that it wished to place reliance. Provider did so review those documents, and either every such statement, representation, promise or provision has been included in this Agreement or else, if omitted, Provider relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Agreement in its entirety without claiming reliance on it or making any other claim on account of its omission.

16.9. Independent Contractor. Nothing contained in this Agreement shall be construed to make Provider or the County and their respective Affiliates, partners, joint venturers, principals, agents, or employees of the other. No officer, director, employee, agent, affiliate, or contractor retained by Provider to perform work on behalf of the County hereunder shall be deemed to be an employee, agent, or contractor of the County. Neither Party shall have any right, power, or authority, express or implied, to bind the other. As the County is relying upon Provider's skills and experience in the performance of the Services under this Agreement, Provider alone shall be responsible for supervising Provider Personnel. As between the Parties, Provider is solely responsible for payment of (a) all income, disability, withholding, and other employment taxes, as well as (b) all medical benefit premiums, vacation pay, sick pay, or other fringe benefits resulting from Provider's retention of any of its officers, directors, employees, agents, or independent contractors.

16.10. Third Party Beneficiaries. This Agreement is entered into solely between, and may be enforced only by, the County and Provider, and this Agreement shall not be deemed to create any rights in Third Parties, including employees, suppliers and customers of a Party, or to create any obligations of a Party to any such Third Parties.

16.11. Contractors and Agents of the Parties.

16.11.1. Except as otherwise set forth in this Agreement, Provider shall be responsible for the acts and omissions of its employees, Subcontractors, agents, designees and end users as if such acts or omissions were committed by Provider. [

16.11.2. Except as otherwise set forth in this Agreement, the County shall be responsible for the acts and omissions of its employees, contractors, agents, designees and End-Users (other than Provider, its employees, contractors, agents, and designees) as if such acts or omissions were committed by the County.

16.12. Notices.

16.12.1. All notices, requests, demands and determinations under this Agreement (other than routine operational communications), shall be in writing and shall be deemed duly given (a) when delivered by hand, (b) on the designated day of delivery after being timely given to an express overnight courier with a reliable system for tracking delivery, (c) when sent by confirmed facsimile with a copy sent by another means specified in this Section 16.12.1, or (d) five (5) days after the day of mailing, when

mailed by United States mail via registered or certified mail, return receipt requested and postage prepaid, and in all cases properly addressed as follows:

In the case of the County:	Cook County Office of ERP 118 North Clark Street 4th Floor Chicago, Illinois 60602 Attention: Director of ERP
With a copy (which shall not constitute notice) to:	Cook County Office of the Chief Procurement Officer 118 North Clark Street Room 1018 Chicago, Illinois 60602 Attention: Chief Procurement Officer
In the case of Provider:	IBM Global Business Services 71 South Wacker Drive Chicago, Illinois 60606 Attention: Gayle Brim
With a copy (which shall not constitute notice) to:	IBM Global Business Services 294 Route 100 Somers, New York 10589-3216 Attention: Assistant General Counsel

16.12.2. A Party may from time to time change its address or designee for notification purposes by giving the other prior written notice of the new address or designee and the date upon which it shall become effective.

16.13. Publicity. Provider may not use the County's or any Using Agency's logo or any other service marks or trademarks of the County without the approval of the County. Any proposed release by Provider to the public relating to this Agreement or the transactions contemplated thereby, whether or not it contains any County Confidential Information therein, must, prior to release thereof, be approved in writing by the County, which consent may be withheld or delayed at the County's sole discretion; *provided, however*, that no such consent shall be required to the extent any such disclosure is required by applicable Law.

16.14. Liens.

16.14.1. Provider agrees to keep the County, all of the real and personal property (both tangible and intangible) of the County, and the Services, free and clear of all liens or lien claims resulting from Provider's actions or omissions.

16.14.2. Should any lien or lien claim described in Section 16.14 be asserted for any reason, the County may, at its sole discretion, (a) pay the amount of such lien or lien claim; (b) deduct such amounts from payments due to Provider; and (c) require Provider to obtain a properly executed release of lien satisfactory to the County.

16.15. Waiver. A delay or omission by either Party hereto to exercise any right or power under this Agreement shall not be construed to be a waiver thereof. A waiver by either of the Parties hereto of any of the covenants to be performed by the other or any breach thereof shall not be construed to be a waiver of any succeeding breach thereof or of any other covenant herein contained.

16.16. Counterparts. This Agreement may be executed in several counterparts, all of which taken together shall constitute one single agreement between the Parties hereto.

16.17. Assignment; Subcontracting. This Agreement shall be binding on the Parties hereto and their respective successors and assigns. Provider may not subcontract or assign this Agreement, in whole or in part, without the advance written approval of the County's Chief Procurement Officer. In no case shall such approval relieve Provider of any of its obligations or change the terms of this Agreement. Provider shall not transfer or assign any Agreement funds or any interest therein due or to become due without the advance written approval of the Chief Procurement Officer. The unauthorized subcontracting or assignment of the Agreement, in whole or in part, or the unauthorized transfer or assignment of any Agreement funds, either in whole or in part, or any interest therein, which shall be due or are to become due to the Provider shall have no effect on the County and are null and void.

16.18. Entire Agreement; Amendment.

16.18.1. This Agreement, including the Schedules (and their Appendices and Exhibits) and the Attachments (and their Exhibits) to these Terms and Conditions, each of which is incorporated herein for all purposes, constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to the subject matter contained in this Agreement. No change, waiver, or discharge hereof shall be valid unless in writing and signed by an authorized representative of the Party against which such change, waiver, or discharge is sought to be enforced.

16.18.2. The Parties may during the Term of the Agreement make modifications and amendments to the Agreement but only as provided in this Section 16.8. Such modifications and amendments shall only be made by mutual agreement in writing. In the case of Agreements not approved by the Board, the Chief Procurement Officer may amend a contract provided that any such amendment does not extend the Agreement by more than one (1) year, and further provided that the total cost of all such amendments does not increase the total amount of the Agreement beyond \$150,000. Such action may only be made with the advance written approval of the Chief Procurement Officer. If the amendment extends the Agreement beyond one (1) year or increases the total award amount beyond \$150,000, then Board approval will be required. No County department or employee thereof has authority to make any modifications or amendments to this Agreement. Any modifications or amendments to this Agreement made without the express written approval of the Chief Procurement Officer is void and unenforceable. Provider is hereby notified that, except for modifications and amendments which are made in accordance with this Section 16.8, no County department or employee thereof has authority to make any modification or amendment to this Agreement.

16.19. Severability. In the event that any provision of this Agreement conflicts with the law under which this Agreement is to be construed or if any such provision is held invalid by an arbitrator or a court with jurisdiction over the Parties, such provision shall be deemed to be restated to reflect as nearly as possible the original intentions of the Parties in accordance with applicable Law. The remainder of this Agreement shall remain in full force and effect.

16.20. Survival. Any provision of this Agreement which contemplates performance or observance subsequent to any termination or expiration of this Agreement shall survive any termination or expiration of this Agreement and continue in full force and effect.

16.21. Cumulative Remedies. Except as otherwise expressly provided in this Agreement, all remedies provided for in this Agreement will be cumulative and in addition to, and not in lieu of, any other remedies available to either Party at law, in equity or otherwise.

16.22. Further Acts. Subsequent to the execution and delivery of this Agreement, and without any additional consideration, each of the County and Provider will execute and deliver any further legal instruments and perform any acts that are or may become necessary to effectuate the purposes of this Agreement.

16.23. Governmental Joint Purchasing Agreement. Pursuant to Section 4 of the Illinois Governmental Joint Purchasing Act (30 ILCS 525) and the Joint Purchase Agreement approved by the Cook County Board of Commissioners (April 9, 1965), other units of government may purchase goods or services under this contract.

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SCHEDULE 1

RELATIONSHIP MANAGEMENT

September 15, 2015

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APPENDICES

Appendix 1-1	County Facilities as of Effective Date
Appendix 1-2	Provider Facilities as of Effective Date

1. RELATIONSHIP MANAGEMENT SERVICES

1.1. General. This Schedule 1 (Relationship Management) sets forth the roles and responsibilities of the Parties for the relationship management services (“Relationship Management Services”) provided under the Agreement as part of the Services. Relationship Management Services are the services and activities, as further detailed in this Schedule 1, required to support the County’s overall relationship with Provider.

1.2. Relationship Management Services Objectives. Provider recognizes that Relationship Management Services are an essential component for successful contract management and ongoing County-Provider relationship satisfaction. The County requires a relationship with Provider based on the following key principles, including:

- 1.2.1. mutual trust and respect;
- 1.2.2. excellent communication between both Parties;
- 1.2.3. well-defined objectives and service levels;
- 1.2.4. appropriate governance structures; and
- 1.2.5. well-defined roles and responsibilities.

1.3. Relationship Management Services Requirements. The Provider relationship management team will work with the County relationship team to achieve a number of the County relationship goals and objectives, including:

- 1.3.1. delivery of high-quality Services to support the County’s service needs;
- 1.3.2. continued high customer satisfaction from all technical and operational End-Users of Services;
- 1.3.3. on-going recommendation of improvements to the functionality, creation and delivery of Services, to the extent that the County’s objectives would be better served;
- 1.3.4. development of the operational rationale and benefits of any proposed changes and communication of such to the County management teams and other County stakeholders, as appropriate;
- 1.3.5. working within the mutually-agreed upon structure regarding processes and procedures;
- 1.3.6. assisting the County in its planning activities; and
- 1.3.7. ensuring sufficient and continued communication.

2. GOVERNANCE STRUCTURE

2.1. Executive Committee.

2.1.1. The Parties will form a committee comprised of senior executives from each Party (the “Executive Committee”), which shall include the County’s Chief Information Officer and Chief Financial Officer, and Provider’s chairs of the Innovation Advisory Board and Project Advisory Committee, who will meet to discuss high level strategic and operational issues relating to the Agreement. The Executive Committee will be responsible for giving guidance to the Service Management Team on overall direction. The County shall chair the Executive Committee.

2.1.2. The Executive Committee shall meet at least once every six (6) months, and shall have the following roles and responsibilities:

- (a) address relevant high level issues appropriate for a board level discussion;
- (b) review and approve the use of innovation processes to drive significant operational changes; and
- (c) address problems, disputes, Incidents or Changes and proposed changes to the Agreement that have been escalated to this level.

2.1.3. For each such meeting, the Parties shall agree upon the location for the meeting in advance. Prior to each such meeting, Provider shall prepare a suggested agenda, with active input from the County Contract Executive. Provider shall deliver the agreed-upon agenda to the County at least ten (10) Business Days prior to the meeting. Provider shall make available its senior management personnel (Project Executive and Project Manager) to answer questions from the County’s senior management personnel regarding the agenda items for such meeting.

2.1.4. Unless otherwise requested by the County, Provider will prepare and circulate minutes promptly after a meeting for review and approval by the County. The County shall retain the right, at its discretion, to prepare the minutes itself.

2.2. Steering Committee. The Parties will form a steering committee to facilitate communications between them (the “Steering Committee”). The Steering Committee will be composed of the County Contract Executive (and at such County Contract Executive’s election, other County personnel) and the Provider Project Executive (and at such Provider Project Executive’s election, other Provider Personnel). The County shall chair the Steering Committee.

2.3. Service Management Teams. A joint management team comprised of management and technology staff from the County and Provider (the “Service Management Team”) shall be responsible for overseeing the day-to-day operation of the Services. The Service Management Team shall be chaired by the applicable County Service Manager. The members of the Service Management Team shall include the Provider Project Manager, plus any additional key personnel from either Party, as agreed between the Parties. Additional personnel

may attend the Service Management Team meetings at the County's sole discretion. Each Service Management Team shall meet on a weekly or other basis as agreed between the applicable Provider Service Manager and the County Service Manager and its roles and responsibilities shall include:

- 2.3.1. addressing demand management by optimizing the use of resource capacity;
- 2.3.2. addressing operational or delivery issues or crises arising since the last meeting, and adherence to performance targets;
- 2.3.3. reviewing Root Cause Analysis of any previous issues;
- 2.3.4. addressing outstanding or unresolved issues;
- 2.3.5. reviewing progress reports;
- 2.3.6. planning for future changes;
- 2.3.7. reviewing Provider's compliance with the Service Level Agreements and Key Performance Indicators;
- 2.3.8. reviewing Problems, disputes, and Incidents; and
- 2.3.9. addressing such other matters as one Party may bring to the other.

2.4. Steering Committee and Service Management Team Meetings.

2.4.1. Unless otherwise agreed by the Parties, meetings of the Steering Committee and the Service Management Teams will be held at the County's chambers and administrative offices. The Parties shall mutually agree on the personnel required to attend such meetings in person and those that may attend by teleconference.

2.4.2. Provider will prepare and circulate an agenda, with active input from the County, sufficiently in advance of each such meeting to give participants an opportunity to prepare for the meeting. Provider will incorporate into such agenda any relevant items that the County desires to discuss.

2.4.3. Provider shall make available its senior management personnel to answer questions from the County's senior management personnel regarding the agenda items for such meeting.

2.4.4. Unless otherwise requested by the County, Provider will prepare and circulate minutes promptly after a meeting for review and approval by the County. The County shall retain the right, at its discretion, to prepare the minutes itself.

2.5. Communications. Communications between the County and Provider shall, wherever possible and practicable, be made in person. Video or audio conferences will be the

second choice of communication medium. Where video or audio conferences are not practical, e-mail will be the fall-back communication medium.

2.6. County Policies, Procedures and Guidelines.

2.6.1. Provider will conform with the following:

(a) The County's policies and procedures made available to Provider on a Provider accessible portal or similar electronic service, as such policies and procedures may be changed in accordance with Section 2.6.2 (the "County Policies"); and

(b) To the extent the Standards and Procedures Manual contains policies with a higher standard than the policies under Section 2.6.1(a), Provider shall comply with such higher standard.

2.6.2. If the County changes the County Policies, or introduces new County Policies or other standard policies and procedures that are applicable to the Services, then the same will be deemed to be County Policies upon reasonable notice to Provider and (a) delivering to Provider a copy of such new or revised County Policies, or (b) by posting such new or revised County Policies on a Provider-accessible portal or similar electronic service.

2.6.3. Changes to County Policies will not lead to an increase in the Fees or in any other changes to the Services that result in an increase in costs borne by the County (e.g., internal costs), except to the extent Provider can demonstrate it will incur new and additional labor, software or equipment costs.

2.6.4. With respect to any Schedules, Exhibits, Appendices or Attachments setting forth factual information regarding the County's operational or technical environment in effect as of the Effective Date, the County may modify or update such information from time to time upon written notice to Provider to reflect changes in the County's operational needs or technical environment.

2.6.5. The County will be responsible for specifying the strategic direction and standards for the Services, if any (collectively, the "Services Standards"). The County shall provide Provider with revisions and updates to the Services Standards (a) in writing or (b) by posting on a Provider accessible portal or similar electronic service and notifying Provider in writing of such posting. County's changes to the Services Standards will not lead to an increase in the Fees or other changes to the Services that result in an increase in costs borne by the County (e.g., internal costs), except to the extent Provider can demonstrate it will incur new and additional labor, software or equipment costs.

2.6.6. Provider, in performing the Services, will conform to and support the Services Standards.

2.6.7. The County may change the Services Standards by giving reasonable notice to Provider.

3. PROVIDER PERSONNEL

3.1. Relationship Management Teams. The County and Provider will each establish and maintain relationship management teams of senior IT and other professionals that, throughout the Agreement life cycle, will:

3.1.1. support the County in determining and protecting the interests and reputation of the County;

3.1.2. dedicate sufficient time and resources to make the relationship a success;

3.1.3. support the County strategic and tactical planning processes for in scope Services, including IT and Application linkage to objectives and technology standards and architectures, provided however, the parties will discuss whether or not such planning may result in a conflict of interest; and

3.1.4. monitor Provider performance metrics, including contracted Service Level Agreements and Key Performance Indicators.

3.2. Key Provider Personnel. The County will have the right to interview Provider Personnel who will fill the positions of Provider Project Executive, Provider Project Manager, and the other key Provider roles set forth on the applicable Statement of Work (collectively, “Key Provider Personnel”).

3.2.1. Before assigning an individual to a Key Provider Personnel position, Provider will notify the County of the proposed assignment, introduce the individual to appropriate County representatives (and, upon request, provide such representatives with the opportunity to interview the individual) and provide the County with a résumé and other information about the individual reasonably and lawfully requested by the County. No Key Provider Personnel will be assigned to provide Services hereunder without the County’s prior approval of such person to fill such role (except for short-term assignments needed in cases of emergency (e.g., death of personnel)).

3.2.2. Attachment H (Key Provider Personnel) shall set forth, with respect to each such Key Provider Personnel, whether such individual is to be resident at a County Facility.

3.2.3. The Key Provider Personnel shall devote substantially full time and effort to the provision of Services beginning on the date that Key Provider Personnel is required by the applicable Statement of Work; provided, that if and to the extent the County materially reduces its demand for Services from Provider during such period and there is a corresponding material reduction in the time commitment required for such Key Provider Personnel to be devoted to the provision of the Services, Provider may request that it be relieved from this obligation to the corresponding extent and the County shall not unreasonably withhold or delay consent to such relief. The Parties acknowledge that

continuous improvement and cost efficiency are key components of this Agreement and, as such, the time commitment required for any Key Provider Personnel to be devoted to the provision of the Services may decrease over the Term, in which event Provider may request that it be relieved from this obligation to the corresponding extent and the County shall not unreasonably withhold or delay consent to such relief.

3.3. Provider Project Executive. Provider shall appoint an individual to serve as the “Provider Project Executive,” who shall be the Provider executive responsible for providing the Services and for the County’s satisfaction with the Services. The Provider Project Executive shall (a) be the primary relationship manager between the Provider and the County, (b) be the single point of accountability for Provider with respect to the Services and this Agreement, (c) be knowledgeable about the Services and each of Provider’s and its Subcontractors’ products and services, (d) be experienced at running services equal in size and scope to those of the County, and (e) have day-to-day authority for the County’s satisfaction with the Services. The Provider Project Executive shall have the necessary authority to perform his functions, including bringing to bear additional Provider resources as appropriate for the development and delivery of Projects and New Services. Notwithstanding anything in Section 3.2 to the contrary, the Provider Project Executive shall be required to devote substantial time and effort to the provision of Services throughout the Term.

3.4. Provider Project Manager. Provider shall appoint an individual to serve as the “Provider Project Manager.” The Provider Project Manager shall report to the Provider Project Executive and is responsible for the delivery and management of the Services on a day-to-day basis. Notwithstanding anything in Section 3.2 to the contrary, the Provider Project Manager shall be required to devote substantially full time and effort to the provision of Services throughout the Term. Leads. Provider shall appoint individuals to serve as the “Provider Leads” for each logical subset of the Services (e.g., Functional Lead, Technical Lead, Training Lead, Managed Services Delivery Manager) as agreed by the Parties. Each Provider Lead shall be the County’s primary point of contact for all matters relating to their respective subset of the Services. The primary role of each Provider Lead is to take ownership of the day-to-day operational relationships between Provider and the County with respect to the applicable subset of the Services, though the Provider Project Manager has overall responsibility for the day-to-day operations across all Service areas. This includes managing and coordinating the appropriate resources for the applicable subset of the Services, and working to optimize service delivery and to resolve issues in accordance with the applicable procedures, Service Level Agreements and Key Performance Indicators. Each Provider Lead shall be knowledgeable about their particular subset of the Services and of Provider’s (and its Subcontractors’) products and services associated with such subset. In addition, the Managed Services Delivery Manager shall be experienced at running operations of a size and scope minimally equal in size and scope to those of the County.

3.5. Restrictions on Key Provider Personnel.

3.5.1. Provider shall not transfer any Key Provider Personnel away from the County account for the lessor of: (i) two (2) years, or (ii) the duration of such Key Provider Personnel’s assignment as specified in the applicable Statement of Work without the County’s approval, which the County may give or withhold in its sole

discretion, unless the individual (a) voluntarily resigns or retires from Contractor, or (b) is terminated by Contractor, or (c) is unable to work due to his or her death or disability, or (d) the individual requests reassignment under compassionate circumstances (e.g., relocation of a spouse) (any of the foregoing, a “Permitted Removal”).

3.5.2. Notwithstanding Section 3.5.1 above, Provider shall not transfer the Provider Project Executive or Provider Project Manager away from the County account for two (2) years after assignment to the County account without the County’s approval, which the County may give or withhold in its sole discretion, other than for a Permitted Removal. Provider shall not transfer the Provider Project Executive and Provider Project Manager away from the County account within six (6) months of each other, unless the County requests such reassignment or replacement, other than for a Permitted Removal.

3.5.3. Provider shall be responsible for providing appropriate training to any persons assuming the roles of Key Provider Personnel prior to their assuming such roles, including having such persons “shadow” their predecessors in such positions for a reasonable period as may be appropriate to such position, at no additional charge to the County.

3.5.4. Each Key Provider Personnel shall have at least one designated individual as his or her core knowledge backup. Provider acknowledges that cross-sharing of knowledge is critical to minimizing the potential impact to the County if any of the Key Provider Personnel become unavailable for any reason.

3.5.5. All Key Provider Personnel shall be assigned to perform the Services on such basis (e.g., full time assignment or otherwise) so that the Services contemplated hereunder are provided in an efficient and timely manner.

3.5.6. Without limiting the generality of Provider’s obligation to obtain the County’s approval before assigning a person to be Provider Project Executive or Provider Project Manager, other than for a Permitted Removal, Provider may not remove someone filling the Provider Project Executive, Provider Project Manager, or other Key Provider Personnel positions until the County has approved a replacement and such replacement has been properly trained. A resignation followed by re-employment (directly or indirectly) by Provider or an Affiliate of Provider shall not be treated as a resignation. In the case of a resignation without notice, departure due to incapacity or death, or an appropriate termination For Cause, Provider shall promptly (and in any event, within fifteen (15) days) provide a qualified candidate for County approval for the Provider Project Executive, Provider Project Manager, or other Key Provider Personnel position, whichever the case may be, subject to the County’s interview and approval rights as set forth above.

3.6. Provider Personnel.

3.6.1. In addition to Key Provider Personnel, Provider shall provide and make available such additional Provider Personnel as are necessary to properly perform all of Provider’s obligations under this Agreement, all of whom shall, prior to their assignment

to perform Services, be subject to the background checks and testing described in Section 3.7. All costs and expenses associated with providing, equipping and retaining Provider Personnel are included within the Fees, including, without limitation, all wages (including overtime payments), benefits of employment, applicable payroll taxes, and all associated staffing and overhead costs such as training and education, office supplies, PC refreshment, travel and lodging costs and recruiting and relocation expenses.

3.6.2. All Provider Personnel shall have experience, training and capabilities sufficient to perform the responsibilities of their role as part of Provider's obligations under this Agreement, including, without limitation, Provider's obligations with respect to the SLAs and KPIs.

3.6.3. On the Effective Date and at the end of every six (6) month period after the Effective Date, Provider shall provide the County with a written list of all Provider Personnel whose time is dedicated fifty percent (50%) or more to providing Services hereunder, and the contents of such written list shall include the names of such Provider Personnel, dates of placement, assignment addresses, assigned duties and responsibilities, and the names of the person to whom they are required to report.

3.7. Background Checks.

3.7.1. With respect to any Provider Personnel performing Services at any County Facility, prior to assigning such Provider Personnel to the provision of the Services, Provider shall conduct reasonable background checks in accordance with the processes and scope generally used by Provider in accordance with its own employment screening practices for Provider for U.S. based employees;. Further, the County reserves the right to perform additional background checks of Provider Personnel to the extent such Provider Personnel will have access to Criminal Justice Information in connection with the provision of the Services.

3.7.2. With respect to any Provider Personnel performing Services outside of County Facilities, prior to assigning such Provider Personnel to the provision of the Services, Provider shall conduct background checks in accordance with the processes and scope generally used by Provider in connection with its own employment-screening practices for Provider employees at such location.

3.7.3. In each case, Provider shall review the results of such background checks with the applicable Provider Personnel to verify that such Provider Personnel meets Provider's standards for employment and any applicable County Policies. No Provider Personnel shall be permitted to perform the Services prior to passing the applicable background checks, drug testing and Criminal Justice Information screenings described in Sections 3.2.1, and 3.7.2.

3.7.4. The County shall be permitted, at its sole option, to refuse access to any Provider Personnel to any County Facility or County Data. Provider shall certify that the background checks required by this Section 3.7 has been conducted.

3.8. Training. Provider maintains a training and education program designed to further develop and maintain the requisite skills and knowledge of all Provider Personnel relating to their job functions. In addition, Provider shall train Provider Personnel on County Policies, processes and procedures required to provide the Services. During each project startup period, the County will provide Provider with content specific to the County's systems and processes that are required to be incorporated into Provider's training programs for Provider Personnel providing the Services hereunder and Provider will incorporate such content into such training programs. Provider Personnel shall be trained, qualified, and available to perform the Services. Upon request by the County, Provider Personnel will attend the County provided training related to County-specific health, regulatory, security or safety-related matters.

3.9. Turn-Over. Provider shall use Commercially Reasonable Efforts to keep the turnover rate of Provider Personnel to a level comparable to or better than the industry average for large, global well-managed outsourcing service providers in the applicable countries performing services similar to the Services. If the County believes that the turnover rate of Provider Personnel is excessive such that the turnover rate has led to a detrimental effect on the Services, and so notifies Provider, Provider shall, within ten (10) Business Days, provide the County with data concerning Provider's turnover rate and meet with the County to discuss the reasons for the turnover rate. Following such meeting(s), Provider shall (a) submit a proposal for reducing the turnover rate for the County's review and approval and (b) agree with the County to a program designed to reduce the turnover rate, all at no additional cost to the County. Notwithstanding any transfer or turnover of Provider Personnel, Provider shall remain obligated to perform the Services without degradation and in accordance with the terms of this Agreement.

3.10. Supervision; Rules of Conduct. The Parties acknowledge and agree that neither Provider nor Provider Personnel shall be deemed to be employees of the County. Provider shall be responsible for Provider Personnel assigned to provide Services under this Agreement, and, subject to this Section 3, Provider (directly or through Provider's Subcontractors) shall have the sole right to direct and control the management of Provider Personnel.

3.10.1. Provider and Provider's Subcontractors, shall: (a) determine and pay all applicable wages and salaries, including applicable overtime and other premium pay; (b) provide welfare and retirement benefits, as they deem necessary or desirable; (c) comply with applicable tax Laws, including income tax and employment tax withholding Laws; (d) comply with all applicable Laws governing the relationship between Provider or Provider's Subcontractors and their respective employees, including Laws relating to accommodation of disabilities, equal pay, provision of leave (e.g., FMLA, jury duty, etc.), unlawful discrimination, as well as wage and hour Law requirements; (e) comply with all workers' compensation insurance coverage Laws; (f) file all applicable reports with federal, state and local agencies and authorities as required by Law; (g) maintain all required employment records, including I-9, personnel and medical files consistent with applicable Law and customary business practices; and (h) comply with all applicable equal employment opportunity Laws.

3.10.2. All Provider Personnel shall conduct themselves in a businesslike and professional manner and comply with the County's and its Affiliates' reasonable directives, requests, rules and regulations regarding personal and professional conduct,

including those relating to all on-site rules of behavior, work schedules, security procedures and other standards and procedures as may be established by the County from time-to-time and which are provided in writing to Provider.

3.11. Removal. If the County determines that any Provider Personnel are detrimental to the County, to the Services or to the work environment, Provider and the County shall discuss how to resolve such issue(s) in the best interests of the Services. If in the County's sole and exclusive discretion such a resolution is not reasonably feasible, Provider shall remove from the County account such Provider Personnel within a commercially reasonable period of time but not to exceed 30 days.

3.12. Transition of Personnel. If: (a) Provider is obligated to replace any Provider Personnel pursuant to Section 3.11 above; or (b) Provider wants to replace or reassign any of the Key Provider Personnel, and either the County consents to such replacement or reassignment, or the County's consent to such replacement or reassignment is not required due to the voluntary resignation, departure due to incapacity or death or termination of such Key Provider Personnel, then, subject to Sections 3.2 and 3.5.3, the replacement Key Provider Personnel shall work with the replaced Key Provider Personnel during a mutually agreed transition period, the duration of which shall be determined based on the duties and responsibilities of the person to be replaced, and all costs and expenses associated with educating and training the replacement Key Provider Personnel shall be borne by Provider. Following such transition period, provided that the replaced Key Provider Personnel remains employed by Provider, such individual shall continue to be available by telephone to answer any project-related questions. Without limiting the generality of the foregoing, in the event of the replacement of the Provider Project Executive, such transition period shall be at least one (1) month in length.

3.13. Salaries and Wages. Provider must pay all salaries and wages due all employees performing Services under this Agreement unconditionally and at least once a month without deduction or rebate on any account, except only for those payroll deductions that are mandatory by Law or are permitted under applicable Law and regulations. If in the performance of this Agreement, Provider underpays any such salaries or wages, the Comptroller for the County may withhold, out of payments due to Provider, an amount sufficient to pay to employees underpaid the difference between the salaries or wages required to be paid under this Agreement and the salaries or wages actually paid these employees for the total number of hours worked. The amounts withheld may be disbursed by the Comptroller for and on account of Provider to the respective employees to whom they are due. The Parties acknowledge that this Section 3.13 is solely for the benefit of the County and that it does not grant any third party beneficiary rights. If the Provider and any Subcontractors perform any Public Works, as defined in the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 (the "Wage Act"), the Provider and Subcontractors shall ensure that its employees and workers are paid the General Prevailing Rate of Hourly Wages, as defined in the Wage Act and established by the Illinois Department of Labor.

4. ADDITIONAL RELATIONSHIP MANAGEMENT FUNCTIONS

The following are additional County and Provider relationship management functions that are essential to managing the relationship:

4.1. Financial Management. The Provider financial management function monitors and manages financial administration practices and procedures associated with the Agreement, ensuring that financial controls are in place and aligned with the Agreement. Financial management function activities include:

4.1.1. acting as primary contact for all billing and financial issues;

4.1.2. reviewing invoices, charges, budget performance, identifying disparities and variances to plans and recommending corrective action; and

4.1.3. reviewing Fee Reductions, identifying problem areas and recommending corrective action.

4.2. Performance Management. The Provider performance management function takes overall responsibility for ensuring Provider performance meets the County's requirements and recommending continuation, improvement or problem resolution to ensure that the County's requirements are met. This function includes:

4.2.1. leading the measurement process by which Service Level Agreements and Key Performance Indicators are assessed;

4.2.2. reviewing and monitoring performance and facilitating the development of improvement plans; and

4.2.3. conducting exploratory activities to determine how to raise Performance Targets and recommending changes in Service Level Agreements and Key Performance Indicators where appropriate to ensure that they properly reflect the County's needs, while balancing costs.

4.3. Contract Management. The Provider contract management function manages the contractual relationship between the County and Provider. This function includes:

4.3.1. leading and facilitating contract activities from Agreement signing through service provider transition and ongoing operations;

4.3.2. monitoring compliance with terms and conditions of the Agreement and providing recommendations to resolve issues related to non-compliance;

4.3.3. identifying and managing service provider Fee Reductions and incentives, based on performance information and terms of the Agreement; and

4.3.4. working closely with the County and Provider procurement and legal counsel to: (a) create, negotiate and incorporate amendments into the Agreement; and (b) coordinate the Agreement negotiations/re negotiations to accommodate scope changes or changes to the County's operational or technical requirements (in each case, consistent with the requirements of the Procurement Code).

5. CHANGE CONTROL

5.1. SOW Change Control Procedures. The following process will be followed for a change to a Statement of Work, Attachment or Exhibit, or the creation of a Project or New Service ("SOW Change Control Procedure"). Either Party may make a request pursuant to this procedure.

5.1.1. An SOW Change Request ("Change Request") is the vehicle for communicating change to scope, schedule, or responsibilities in an existing Statement of Work, Attachment or Exhibit, or a request for New Services or a Project), the rationale for the change and the effect the change will have on the Services, if any. The requesting Party will complete the SOW Change Request Form as the vehicle to communicate the request.

5.1.2. The designated Project Manager of the requesting Party will review the proposed change and determine whether to submit the request to the other party.

5.1.3. Once submitted, the Project Managers and/or the Change Control Board, if any, will review the proposed change, and within five Business Days, or as otherwise agreed, shall agree to the proposed change, recommend it for further investigation, or reject it.

(a) If further investigation is required, an authorization to proceed with the investigation must be signed by authorized representatives from both Parties. The investigation will determine the effect that the implementation of the Change Request will have on price, schedule and other provisions of the applicable SOW, Attachment or Exhibit.

(b) If the proposed change is rejected, the change will not be implemented. Either Party may refer a rejection to the Issue Escalation Process in Schedule 1 - Relationship Management.

(c) If the proposed Change Request is accepted, the authorized representatives from both Parties will sign the Change Request to authorize implementation of the changes described in the Change Request. Until a change is agreed in writing, both Parties will continue to act in accordance with the latest agreed version of the SOW.

6. MULTI-PARTY SUPPLIER CONTRACT MANAGEMENT

6.1. General. The Parties acknowledge that the Services will be provided in an environment in which Third Party Providers are providing complementary and, in some cases, related services. Provider shall at all times work in coordination and cooperation with such Third Party Providers in an effort to ensure that all services are provided seamlessly across all service providers. Such coordination and cooperation shall include:

6.1.1. Providing an open exchange of information with Third Party Providers in connection with the services to be provided by such Third Party Providers and the assets used in connection therewith;

6.1.2. Participating in meetings with Third Party Providers, with or without the County representatives present, as reasonably required to manage the interfacing and interaction of the Services with such Third Party Providers' services;

6.1.3. Working jointly and in good faith with Third Party Providers to allocate responsibilities relating to the Services and such Third Party Providers' services in a manner that is consistent with the County's, Provider's and such Third Party Providers' contractual obligations and expectations and to avoid "finger-pointing" in connection with any Incidents, Problems, or failures by any Third Party Provider to provide services; and

6.1.4. Participating with Third Party Providers in joint review and Root Cause Analysis with respect to any Incidents for which services within the responsibility of multiple parties may be implicated.

7. PERFORMANCE REVIEWS AND INNOVATION

7.1. Continuous Improvement. Provider acknowledges that continuous improvement in the quality and efficiency of the Services are critical objectives of the Agreement and of the County's relationship with Provider, and Provider will use Commercially Reasonable Efforts to achieve such objectives to the extent reasonably possible. In this regard, the Parties have agreed to a series of processes designed to facilitate such improvements and reductions, including a semi-annual innovation review, an annual review of Services and SLAs and KPIs.

7.2. Innovation.

7.2.1. Provider will collaborate with the County to bring thought leadership and innovation in processes and technologies and to help the County assess the impact of technological advances and quickly leverage technology for additional value.

7.2.2. Innovation Meetings. Without limiting the generality of Provider's other obligations under this Agreement, the Parties shall meet on a semi-annual basis at which Provider will seek to: (i) identify innovative ways to reduce the County internal and external costs associated with the Services, including the Fees, (ii) identify ways to improve the County's ability to use the Services in a cost-effective way, in each case evaluating the County's use of the technology used to provide the Services and considering whether changes to such use or to technology would reduce the County's internal and external costs or increase the functionality provided by the Applications; and (iii) identify industry trends or leading practices relative to the Services that may affect the manner in which the Services are or may be performed.

7.3. Annual Review of Services and Service Level Agreements.

7.3.1. Provider and the County shall jointly review Provider's performance of the Services at least once each year of the Term and Provider shall propose suggested modifications to the Services in order to better reflect the County's operational requirements as they change.

7.3.2. To the extent that the County's requirements in regard to the Services change during the Term and the County has the need further to define such requirements, Provider shall, at the County's request, reasonably assist the County in doing so, including quantifying new or then-existing Services; preparing performance requirements; specifying in detail new or then-existing Services and required components, the way in which any such Service is to be implemented and provided, and the required quality control procedure; and undertaking the review activities described in Section 7.3.3 below.

7.3.3. As part of its periodic review of the Services, Provider shall consider, among other things, the (a) identification of Service trends; (b) potential changes to the Services and/or SLAs and KPIs; and (c) changes to procedures and estimates of the cost of additional resources.

8. SUBCONTRACTING

8.1. County Approval of Subcontracts; Key Subcontractors.

8.1.1. Provider shall not enter into a subcontract, partnership, alliance or similar agreement with any Subcontractor with respect to its performance of the Services, unless, prior to entering into such subcontract or similar agreement: (a) Provider gives the County reasonable notice of the components of the Services affected, the scope of the proposed subcontract, partnership, alliance or similar agreement, the identity and qualifications of the proposed Subcontractor; and (b) the Chief Procurement Officer of the County approves such subcontract, partnership, alliance or similar agreement. Provider acknowledges that the Chief Procurement Officer may require Provider and/or prospective Subcontractors to submit additional documentation to the County regarding such Subcontractor's business in connection with any such approval process to determine Subcontractor's eligibility to provide Services to the County.

8.1.2. As of the Effective Date of the Agreement, the Chief Procurement Officer has consented to the use of the Subcontractors identified as "approved subcontractors" in Attachment I (Approved Subcontractors). Attachment I (Approved Subcontractors) shall include the name and business address of each Subcontractor, as well as the nature of the relationship, and the total amount of the fees paid or estimated to be paid.

8.1.3. Provider agrees that it shall continue throughout the Term to retain the Subcontractors identified as "Key Subcontractors" in Attachment I (Approved Subcontractors) to the Terms and Conditions and that such Key Subcontractors shall continue to provide the Services identified in the Letter of Intent, according to the Project

Plan, unless Provider has obtained the County's prior written consent to any changes, which consent may be withheld or delayed in the County's sole discretion.

8.2. Required Provisions in Subcontracts. Provider's subcontracts shall include provisions equivalent to those in the Agreement, including those between the County and Provider with respect to use of the County Facilities; the County Intellectual Property; the County Data; audit rights; confidentiality; insurance; privacy and information security; and warranties, and such subcontracts shall identify the County as a direct and intended third-party beneficiary thereof. Upon reasonable notice, at the request of the County, Provider will allow the County to review the terms of any subcontract for Services to the extent necessary to verify that the subcontract complies with the terms of this Agreement. Provider shall require each Subcontractor to obtain and maintain all licenses required in connection with the Services for which such Subcontractor is responsible.

8.3. Replacement of Subcontractors. The County shall have the right to direct Provider to terminate or replace an approved Subcontractor: immediately upon notice from the County if (a) acts or omissions of the Subcontractor cause a material breach of the confidentiality or infringement provisions of the Agreement, or (b) material misrepresentations were made concerning the Subcontractor at the time of the County's approval, or upon thirty (30) days' notice from the County if the Subcontractor's performance is materially deficient. Notwithstanding anything to the contrary contained in this Agreement, in the event that any Provider Subcontractor is replaced under this Section 8.3, all costs and expenses associated with such replacement, including educating and training the replacement Subcontractor, shall be borne by Provider.

8.4. County Approval of Termination or Changes to Certain Subcontracts. Provider may not terminate or alter in any material respect a subcontract, partnership, alliance or similar agreement for which Provider was required to obtain the County's prior approval without the County's prior written consent, which consent may be granted or withheld in the County's sole discretion.

8.5. Responsibility for Subcontractors. Provider shall be the prime contractor to the County and shall remain fully responsible to the County for all obligations performed (or failed to be performed) by Subcontractors, including such Subcontractor's compliance with or failure to satisfy the terms of the Agreement.

8.6. Direct Agreements. Provider shall not prohibit or restrict such Subcontractors from entering into direct agreements with the County.

8.7. Disclosure of the County Confidential Information to Subcontractors. Provider shall not disclose Confidential Information of the County to a Subcontractor unless and until (a) such Subcontractor has a need to know such information in order to perform its obligations, and (b) such Subcontractor has agreed in writing to protect such Confidential Information in a manner substantially equivalent to that required of Provider under the Agreement.

8.8. Enterprise Subcontracts. Sections 8.1 through 8.6 shall not apply to or impact Provider Enterprise Subcontracts.

9. SYSTEMS, RESOURCES AND FACILITIES

9.1. Provision of Systems and Other Resources.

9.1.1. Excluding the County-Provided Equipment, County-Provided Software and any other materials, facilities, systems and other resources that the County is expressly required to provide under this Agreement, Provider shall provide, as part of the performance of the Services, the Equipment, Software, materials, facilities, systems and other resources needed to perform the Services in accordance with the Performance Standards.

9.1.2. Unless stated as the County's responsibility in this Agreement, Provider shall be financially responsible for (and the same shall not be additionally chargeable to the County) for providing the resources specified in Section 9.1.1 or otherwise to be provided pursuant to this Agreement.

9.1.3. Neither Party shall, nor shall it purport to, pledge or charge by way of security any Equipment, Software, materials, facilities or other resources owned or leased by the other Party that are made available pursuant to this Agreement.

9.1.4. Provider shall keep any Equipment owned or leased by the County that is under Provider's or a Provider Subcontractor's control (if any), secure.

9.1.5. Provider shall not use, nor permit any Third Party (including any Subcontractor) to use, any County-Provided Equipment, County-Provided Software, County Facilities or any other Equipment, Software or materials, facilities, systems or other resources that the County provides or otherwise makes available under this Agreement for any purpose other than the performance of the Services.

9.2. Ownership of Equipment and Software. Nothing in this Agreement shall be deemed to transfer to Provider or any Subcontractor any rights, title or interest in any assets (including Equipment, Software or materials) owned or leased by the County.

9.3. Changes to the County-Provided Resources. The County may, at any time, change the County-Provided Equipment, County-Provided Software or any other system or materials provided to Provider for performing the Services. The impact of such change shall be addressed in accordance with the SOW Change Control Procedure.

9.4. Service Compatibility.

9.4.1. As of each Service Handover Date, the applicable Services, Provider-Provided Equipment and Provider-Provided Software (collectively, the "Provider Resources") shall meet the requirement of the respective Statements of Work. To the extent that any interfaces need to be developed or modified prior to any Service Handover Date in order for the Provider Resources to integrate successfully with any then-existing County-Provided Equipment, County-Provided Software, or the County's retained systems (collectively "County Resources") or other items or services retained by

the County or provided by Third Party Providers, the responsibilities for such interfaces shall be set forth in the Transition Plan.

9.4.2. Provider shall reasonably cooperate with all Third Party Providers of the County to coordinate its provision of the Services with the services and systems of such Third Party Providers. Subject to reasonable confidentiality requirements, such cooperation shall include providing: (a) applicable written information, standards and policies concerning any or all of the systems, data, computing environment, and technology direction used in providing the Services so that the goods and services provided by the Third Party Provider may work in conjunction with or be integrated with the Services; (b) commercially reasonable assistance and support services to such Third Party Providers; (c) Provider's quality assurance, its development and performance acceptance testing and the applicable requirements of any necessary interfaces for the Third Party Provider's work product; (d) applicable written requirements of any necessary modifications to the systems or computing environment; and (e) access to and use of the Provider Resources as mutually agreed upon by the County and Provider (such agreement not to be unreasonably withheld or delayed) and subject to the Third Party Provider's agreement to comply with Provider's applicable standard security policies.

9.5. County Facilities.

9.5.1. During the Term, the County shall provide space and facilities at the County locations specified in Appendix 1-1 (County Facilities as of the Effective Date) (as the same may change in accordance with this Agreement) (the "County Facilities") to Provider solely for Provider to perform the Services. At each such location, the County shall provide office space, office furniture and conference rooms for the Provider Personnel who perform the Services.

9.5.2. If any County Facility is no longer required for performance of the Services (and in any event at the end of the Term), Provider shall promptly cease using and shall vacate such County Facility.

9.5.3. Any County Facilities vacated by Provider shall be left in the same condition by Provider as when provided by the County, subject to reasonable wear and tear.

9.6. Access to County Facilities.

9.6.1. The provision of access by Personnel to County Facilities shall be at the County's sole discretion, including in accordance Attachment D (Security and Data Protection).

9.6.2. Provider shall comply with the County's directions, policies and procedures (including County Policies) with respect to any access to the County Facilities, including in accordance with Attachment D (Security and Data Protection).

9.7. Rights in County Facilities.

9.7.1. The use by Provider of the County Facilities and the County-Provided Resources shall neither (a) constitute a leasehold or other property interest in favor of Provider or any exclusive right to occupy or use the County Facility, nor (b) transfer from the County to Provider, or grant to Provider, any right, title or interest in the County Facilities or County Resources. The rights granted under this Agreement shall be subject to any County lease or County mortgage relating to any County Facilities, as advised by the County to Provider from time to time.

9.7.2. If requested by the County, Provider shall take such steps as are reasonably necessary to:

(a) give effect to this Section 9.7; and

(b) avoid Provider acquiring any right, title or interest in the County Facilities or the County Resources, including entering into separate licenses (on terms consistent with this Agreement) with the County with respect to any of the County Facilities or County Resources.

9.8. Use of County Facilities.

9.8.1. the County may relocate or alter any of the County Facilities or County Resources, or carry-out emergency or pre-planned maintenance, repairs or shutdowns in respect of the County Facilities or County Resources. Where any of the same affects Provider's performance of the Services, the County shall provide Provider with reasonable advance notice (other than in the case of emergencies).

9.8.2. Provider shall:

(a) use the County Facilities, and perform the Services at the County Facilities, in an efficient and coordinated manner that, unless otherwise approved by the County, does not interfere with or disrupt the County's normal operations;

(b) keep the County Facilities, and areas at the County Facilities where it is performing the Services, in good order and not commit or permit waste or damage to the same;

(c) not make improvements or other structural, mechanical or electrical alterations to the County Facilities or the County Resources without the County's prior approval (and any such improvements or changes to the same shall become the property of the County);

(d) coordinate with the County the installation of Equipment at County Facilities and not install any Equipment that increases the power, cooling or weight requirements for a County Facility without the County's prior approval;

(e) permit the County and its agents and representatives to enter into the County Facilities, and areas at the County Facilities where Provider is performing the Services, at any time and for any purpose;

(f) use the County Facilities in a reasonably efficient manner;

(g) be responsible for any damage to the County Facilities resulting from its abuse, misuse, or neglect of the County Facilities or other failure to comply with its obligations respecting such County Facilities;

(h) be responsible for the provision and cost of office supplies it requires in connection with the performance of the Services and their use at the County Facilities;

(i) not make any changes to the County Facilities without the County's approval. The County reserves the right to give or withhold such approval in its sole discretion. Any such changes shall be done at the Provider's expense. Severable improvements shall belong to the Provider, and non-severable improvements shall belong to the County;

(j) when the County Facilities are no longer required for performance of the Services, return such County Facilities in substantially the same condition as when Provider began use of such County Facilities, subject to reasonable wear and tear; and

(k) unless otherwise agreed by the Parties, provide, at its own expense, any space it requires other than that listed in Appendix 1-1 (County Facilities as of the Effective Date).

9.8.3. The County shall make the County Facilities (including any furnishings, telephone handsets, and desktop computer equipment that the County may elect to make available to Provider) available to Provider on an "as is, where is" basis, with no warranties whatsoever, except that such County Facilities shall comply with applicable Laws.

9.9. Migration. From and after the Effective Date, the Managed Services shall be provided from the County Facilities listed in Appendix 1-1 (County Facilities as of Effective Date) and the Provider Facilities listed in Appendix 1-2 (Provider Facilities as of Effective Date), which have been agreed by the Parties as of the Effective Date. Provider shall not migrate any material portion of the Services provided from a primary Provider Facility (as designated in Appendix 1-2) to any other facility (including any other Provider Facility) without the County's prior consent. In the event Provider desires to migrate the Services from any such County Facilities and Provider Facilities during the Term, which migration shall require the County's prior consent, Provider shall:

9.9.1. obtain the County's preliminary, conditional approval to such migration before taking any other steps;

9.9.2. if the County provides its preliminary tentative approval of the migration, deliver an initial high level draft of its migration plan identifying and describing the facility to which Provider proposes to migrate the Services (the “Migration Plan”). Such Migration Plan shall also describe the methods, procedures and timing of the steps Provider shall take to (a) migrate the provision of the Services, and (b) avoid degradation of the Services, SLAs and KPIs during the migration. The Migration Plan shall include detailed back-out and contingency plans to be executed in the event of any failure during the migration;

9.9.3. in consultation with the County, develop, for review and approval by the County, plans for comprehensive migration testing. Such plans shall, among other things, require that Provider perform all tests. Provider is prohibited from migrating any work prior to successful completion of such tests;

9.9.4. monitor the migration on a continuous basis, document any problems encountered, and promptly resolve such problems; and

9.9.5. complete the migration in accordance with the Migration Plan, including the timeline set forth therein, while continuing to perform the Services without degradation of the Services, SLAs or KPIs.

10. AUDITS

The County shall have the rights, and Provider shall have the duties and obligations, set forth in Attachment C (Compliance and Audit Standards) with respect to compliance and audit under this Agreement.

11. ISSUE ESCALATION AND DISPUTE RESOLUTION

11.1. Issue Escalation. The following procedure will be followed if resolution is required to a conflict arising during the performance of a SOW.

11.1.1. When a conflict arises between County and Provider, the project team member(s) will first strive to work out the problem internally.

11.1.2. Level 1: If the project team cannot resolve the conflict within two (2) Business Days, either Party may escalate the matter at any time thereafter to the County Project Manager and Provider Project Manager who will meet promptly to resolve the issue.

11.1.3. Level 2: If the conflict is not resolved within three (3) Business Days after being escalated to Level 1, either Party may escalate the matter at any time thereafter to the County Project Director and the Provider Project Executive who will meet promptly to resolve the issue.

11.1.4. Level 3: If the conflict is not resolved within three (3) Business Days after being escalated to Level 3, either Party may escalate the matter at any time thereafter to the Executive Committee who will meet promptly to resolve the issue.

11.1.5. If the conflict is not resolved by the Executive Committee within five (5) business days after being escalated to them, either Party may designate such conflict a Dispute to be resolved pursuant to Section 14 of the Terms and Conditions.

11.1.6. If the conflict is resolved by either Level 1, Level 2 or Level 3 intervention, the resolution will be addressed in accordance with the SOW Change Control Procedure set forth in Section 5.1.

11.2. Dispute Resolution.

11.2.1. Any dispute arising under this Agreement between the County and Provider shall be decided by the Chief Procurement Officer. The complaining Party shall submit a written statement detailing the dispute and specifying the specific relevant Agreement provision(s) to the Chief Procurement Officer. Upon request of the Chief Procurement Officer, the Party complained against shall respond to the complaint in writing within five (5) days of such request. The Chief Procurement Officer will reduce his or her decision to writing and mail or otherwise furnish a copy thereof to the Provider.

11.2.2. The decision of the Chief Procurement Officer will be final and binding. Dispute resolution as provided herein shall be a condition precedent to any other action at law or in equity. However, unless a notice is issued by the Chief Procurement Officer indicating that additional time is required to review a dispute, the parties may exercise their contractual remedies, if any, if no decision is made within sixty (60) days following notification to the Chief Procurement Officer of a dispute. No inference shall be drawn from the absence of a decision by the Chief Procurement Officer. Notwithstanding a dispute, Provider shall continue to discharge all its obligations, duties and responsibilities set forth in the Agreement during any dispute resolution proceeding unless otherwise agreed to by the County in writing.

11.3. Litigation

11.3.1. Prerequisite to Formal Proceedings. Disputes that remain unresolved after following the procedures described in this Section 11.2 may be resolved through litigation.

11.3.2. Institution of Formal Proceedings. Notwithstanding anything to the contrary in this Agreement, nothing in this Section 11 shall prevent either Party from instituting formal litigation proceedings, and a Party is authorized to institute formal litigation proceedings in a court of competent jurisdiction at any time (including before, during or after the informal proceedings addressed in Section 11.2) to: (a) avoid the expiration of any applicable statute of limitations period, (b) obtain equitable relief, (c) preserve a superior position with respect to other creditors, (d) resolve a Party's Intellectual Property rights, or (e) obtain relief with respect to a Party's breach or alleged breach of data security or confidentiality obligations hereunder.

[End of Schedule 1]

APPENDIX 1-1

COUNTY FACILITIES AS OF THE EFFECTIVE DATE

September 15, 2015

1. COUNTY FACILITIES AS OF THE EFFECTIVE DATE

The following is a list of County Facilities, as of the Effective Date, from which the Services shall be provided:

Location of County Facility(ies):

Property Name	Address
County Building	118 N. Clark St. Chicago, IL
69 W. Washington	69 W. Washington St. Chicago, IL

Additional County Facilities may be added by mutual agreement of the Parties.

[End of Appendix 1-1]

APPENDIX 1-2
PROVIDER FACILITIES AS OF THE EFFECTIVE DATE

September 15, 2015

1. PROVIDER FACILITIES AS OF THE EFFECTIVE DATE

1.1 The following is a list of Provider Facilities*, as of the Effective Date, from which the Services shall be provided:

Location of Provider Facility	Description of Services to be Provided
3039 E. Cornwallis Road, Building 301 Research Triangle Park, NC 27709-2195	Cloud Managed Services (CMS) Data Center – includes servers, network, infrastructure for CMS Services
6300 Diagonal Highway Boulder, Colorado 80301-6108	CMS Data Center – includes servers, network, infrastructure for CMS Services
MILLENNIUM CITY INTO SW TECH PARK Plot No. 62 Block DN Sector V BIDH, 1F (Part) and 2-8 Floors, Kolkata, WB 700091. India	IBM Application Development & Innovation Staff location

* Please note: Either data centers may be chosen by the County. Additionally, this list does not include addresses of staff augmentation personnel used in support of the Services.

[End of Appendix 1-2]

SCHEDULE 2A

STATEMENT OF WORK

September 15, 2015

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1. Executive Summary

This Statement of Work (“SOW”) describes the work to be undertaken by IBM (“Services”) under the Master Services Agreement by and between County of Cook (“County”) and IBM Corporation (“Provider” or “IBM”) dated September 15, 2015, (“Agreement”) and the terms and conditions contained herein. Described within this SOW is the project, which consists of the deliverable Materials to be provided by IBM, and the IBM responsibilities and related County Responsibilities to be provided in accordance with the terms of this SOW.

Changes to this SOW will be processed in accordance with the procedure described in Schedule 1 Relationship Management Section 5.2 SOW Change Control Procedures of the Agreement (“SOW Change Control Procedure”). The implementation of changes may result in modifications to the Estimated Schedule, Fees, and other terms of this SOW and the Agreement.

The following are incorporated in and made part of this SOW:

- a. Attachment 1 – Deliverable Sign-off Sheet
- b. Attachment 2 – Project Change Request Form
- c. Attachment 3 – Functional and Technical Requirements in Scope
- d. Attachment 4 – Reports in Scope
- e. Attachment 5 – Interfaces in Scope
- f. Attachment 6 – Conversions in Scope
- g. Attachment 7 – Enhancements in Scope
- h. Attachment 8 – Workflow in Scope
- i. Attachment 9 – Deliverable Expectation Documents
- j. Attachment 10 – Organization and Training in Scope
- k. Attachment 11 – Technical Infrastructure/Environment in Scope
- l. Attachment 12 – Information Security Table of Roles and Responsibilities
- m. Attachment 13 – Project Tools
- n. Attachment 14 – Implementation Services Deliverables
- o. Attachment 15 – Transition to Managed Services

To the extent there is any contradiction, inconsistency or ambiguity between the terms of this SOW and the Terms and Conditions, the Terms and Conditions will govern.

1.1. Functional Scope

The Software Scope defines the software that will be implemented to support the County ERP project. Logical groupings of Oracle modules have been identified by functional area. The table below lists the Oracle software modules and other third-party applications in scope. IBM will implement the software listed below to meet the requirements defined in SOW Attachment 3 – Functional and Technical Requirements in Scope.

The versions for the initial Wave will be reviewed and confirmed with the County during the Wave 1 Inception Phase based on the then most current generally available version. Patches and updates will be applied over the course of the project in accordance with the Production Support Plan deliverable.

Table 1.1-1: Software Scope

Functional Area	Module	Vendor/Product
Oracle EBS Financials	General Ledger	Oracle EBS 12.2.4
	Accounts Payables	Oracle EBS 12.2.4
	Payments	Oracle EBS 12.2.4
	Accounts Receivable	Oracle EBS 12.2.4
	Cash Management	Oracle EBS 12.2.4
	Project Costing	Oracle EBS 12.2.4
	Grants	Oracle EBS 12.2.4
	Fixed Assets	Oracle EBS 12.2.4
Oracle EBS Supply Chain Management	Purchasing	Oracle EBS 12.2.4
	iSupplier	Oracle EBS 12.2.4
	iProcurement	Oracle EBS 12.2.4
	Order Management	Oracle EBS 12.2.4
	Inventory Management	Oracle EBS 12.2.4
	Services Procurement	Oracle EBS 12.2.4
	Procurement Contracts	Oracle EBS 12.2.4
	Supplier Lifecycle Management	Oracle EBS 12.2.4
	Sourcing	Oracle EBS 12.2.4
Oracle EBS Human Capital Management	Human Resources	Oracle EBS 12.2.4
	Payroll	Oracle EBS 12.2.4
	Self Service Human Resources	Oracle EBS 12.2.4
	Compensation Workbench	Oracle EBS 12.2.4
	Advanced Benefits	Oracle EBS 12.2.4
Hyperion	Financial Close Management	Hyperion 11.1.2.4
	Financial Management Plus	Hyperion 11.1.2.4
	Financial Data Quality Management, Enterprise Edition Adapter for Financial Management	Hyperion 11.1.2.4
	Financial Data Quality Management,	Hyperion 11.1.2.4

Functional Area	Module	Vendor/Product
	Enterprise Edition	
	Financial Data Quality Management, Enterprise Edition Adapter Suite	Hyperion 11.1.2.4
	Project Financial Planning	Hyperion 11.1.2.4
	Public Sector Planning and Budgeting	Hyperion 11.1.2.4
	Planning Plus	Hyperion 11.1.2.4
OBIEE – Reporting	Oracle Human Resources Analytics	OBIEE 11.1.1.7
	Oracle Financial Analytics	OBIEE 11.1.1.7
	Oracle Procurement & Spend Analytics	OBIEE 11.1.1.7
	Oracle Projects Analytics	OBIEE 11.1.1.7
	Oracle Business Intelligence Foundation Suite	OBIEE 11.1.1.7
Tax Integration	Vertex Payroll Tax – Q Series (PTQ1000)	Vertex
Training	Oracle UPK	Oracle UPK
Systems	Oracle Database Enterprise Edition	Oracle
	Oracle Real Application Clusters	Oracle
	Oracle Diagnostics Pack	Oracle
	Oracle Tuning Pack	Oracle
	Oracle Advanced Security	Oracle
	Oracle SOA Suite of Oracle Middleware	Oracle
	Oracle WebLogic Suite	Oracle
	Oracle Data Integrator Enterprise Edition	Oracle

Table 1.1-2 lists additional “gap” software required for the ERP solution but not currently licensed to the County.

IBM, in its capacity as an authorized reseller of Oracle software, will resell to the County the requisite Oracle licenses and maintenance agreements for such software and such software will be implemented with the ERP project pursuant to the Project Schedule.

Table 1.1-2: Gap Software

Functional Area	Module	Vendor/Product
System	Oracle Active Data Guard	Oracle
	Oracle Data Masking and Subsetting	Oracle

If after the Elaboration Phase, IBM and County identify additional software necessary to meet the County’s requirements, the County will procure the required software and IBM will assess whether a Change Order is required to implement the additional software.

1.2. Managed Services Scope

1.2.1 Cloud Managed Services

IBM Cloud Managed Services (CMS) is an Infrastructure as a Service (IaaS) solution that is IT Infrastructure Library (ITIL) compliant and fully managed. Located in IBM U.S. data centers, CMS resources will provide the hosting platforms for the County’s Oracle environment and will be utilized from the beginning of implementation through the managed services period. CMS will provide the computing resources needed including: servers, data center networking, storage, data center space, power and cooling as well as management of these resources through and including the Operating System (OS) layer.

Cloud Managed Services resources will be provisioned and configured to support the environments listed in Table 1.2.1-1. IBM’s Cloud Data center in Raleigh NC will be the primary data center and IBM’s Cloud Data Center in Boulder, CO will be used for disaster recovery. Disaster Recovery capability is provided via the secondary CMS Cloud Data Center environment that is connected to the primary CMS Cloud Data center via IBM managed high speed network connections. Fully managed, dedicated network connections between County and the primary and disaster recovery data centers are provided via NetBond.

For the EBS application environments that require HIPAA/HITECH compliance, CMS will provide the infrastructure support elements for compliance.

Table 1.2.1-1: Software Scope

Environment	SOA				
	EBS	BI	Hyperion	Middleware	UPK
Patch	Provided	Provided	Provided	Provided	Not Provided
Sandbox	Provided	Not Provided	Not Provided	Not Provided	Not Provided
Development	Provided	Provided	Provided	Provided	Not Provided
Test	Provided	Provided	Provided	Provided	Not Provided
Quality Assurance (QA)	Provided	Provided	Provided	Provided	Not Provided
Production	Provided	Provided	Provided	Provided	Not Provided
Production Support	Provided	Provided	Provided	Provided	Provided

Environment	SOA				
	EBS	BI	Hyperion	Middleware	UPK
Training	Provided	Provided	Provided	Provided	Not Provided
Conversion	Provided	Provided	Provided	Not Provided	Not Provided
Disaster Recovery (DR)	Provided	Provided	Provided	Provided	Not Provided

With Implementation Services, IBM will manage the non-production environments during the implementation in accordance with the Project Schedule (Deliverable #4). Once the system is in production with Managed Services, IBM will manage the environments in accordance with the processes outlined in the Standard Operating Procedures. The procedures will allow for ad hoc requests from the County to accommodate its business needs.

1.2.2 Application Managed Services

IBM will support each production application with the following services included in the Application Managed Services scope of work:

- **Project Management –** Project Management is focused on managing the delivery of the services and deliverable materials included in the Statement of Work, including coordinating support personnel, project communications, reporting, procedural activity, and contractual activity.
- **Transition to Managed Services –** Definition of the support processes begins during Implementation Services and continues with the Transition to Managed Services Phase. Service levels and measurement criteria will be confirmed and help desk processes and procedures will be established to provide a smooth integration with the County’s business operations.
- **Troubleshoot and Resolve -** The Troubleshoot and Resolve service provides for diagnosis and problem resolution for Service Incidents caused specifically by breaks in existing functional configuration and/or existing custom development. This will also include supporting month end, quarter end and year end activities. This includes incident management and problem management activities.
- **Minor Enhancement -** The Minor Enhancements service provides for minor new configuration or custom development updates, additions, and deletions within existing functionality that are already in production. “Minor Enhancements” are defined as a work effort requiring less than 100 hours to complete per Service Request. This service will be performed using the residual work capacity of specific Provider Personnel staffed to provide the ongoing Application Managed Services, as prioritized by the County, after completing Incident and Problem management activities. Incident and Problem Management will be given priority over Minor Enhancements. IBM will maintain a running list of open Minor Enhancement Service Requests and will work with the County to prioritize and re-prioritize those Service Requests as needed.
- **Batch/Interface Management -** The Batch/Interface Management service provides for the development, implementation and/or execution of the processes and procedures used to define and maintain the Application’s batch schedules, managing of the batch processes and the notification and escalation procedure for error conditions.

- **Technical Support Maintaining Application Currency -** Technical support maintaining application currency feature of the AMS Services includes the implementation and/or testing of the processes and procedures used in the update of the Oracle system. IBM will be responsible for the monitoring and identification of vendor supplied patches, fixes and updates that require analysis. IBM will make recommendations to the County as to determine the need to apply said patches, fixes and updates to the County's Application Environment and will work with the County to determine which patches, fixes and updates will be applied to the County's Application Environment. If the decision is made to proceed with the application of said patches, fixes and updates, IBM will work with the County to coordinate the installation of said patches, fixes and updates. Once applied IBM will test the patches, fixes and updates and coordinate the User Acceptance Test with the County. Once these items have been successfully tested and approved by the County, IBM will coordinate the migration of the patches, fixes and updates to Production.
- **Data Base Administration (DBA) Support (Application/Logical & Physical) –** The DBA support service provides for regular monitoring of the Oracle system to assist in providing high level of system availability.

1.3. Schedule

Figure 1.3-1 provides an overview the approach and schedule IBM will use to deploy the Countywide ERP solution based on a project start date of October 1, 2015.

Figure1.3-1: Software Scope

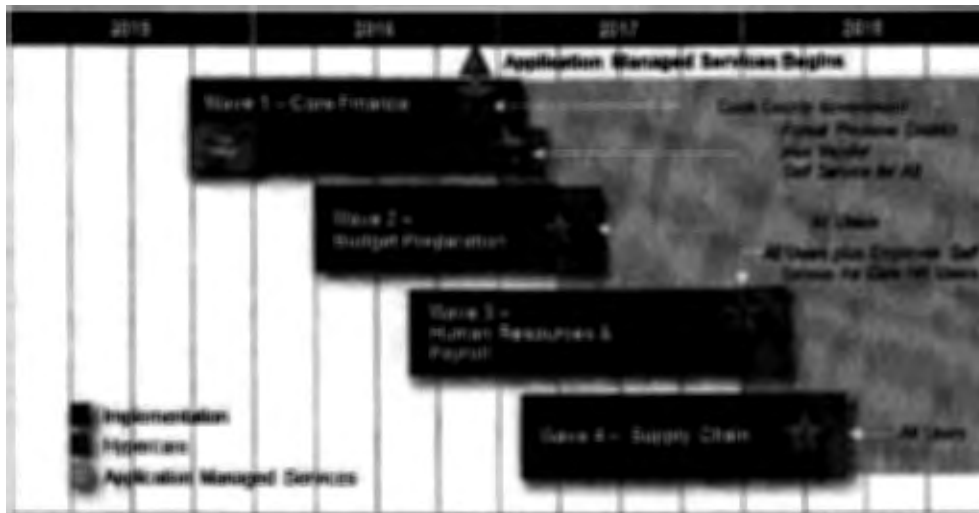


Table 1.3-1 describes the software and modules deployed with each Wave and the County organizations to which they are deployed.

Application Managed Services will start at Wave 1 "Go Live". Transition to Managed Services activities will start two months prior to the Application Managed Services start date as part of the Implementation Transition Phase. IBM will provide "Hypercare" service (as described in Section 4.3.2 hereof) for two months following each Wave Go-Live.

Table 1.3-1: Deployment Schedule Summary

--

Wave 1	Chart of Accounts Design	n/a	ALL
	<p>Core Finance</p> <p><u>Financials</u></p> <ul style="list-style-type: none"> General Ledger Accounts Payable Payments Accounts Receivable Cash Management Purchasing & iProcurement Inventory Management (Part 1) Fixed Assets Grants (Foundation) Project Costing (Foundation) Human Resources (Foundation) <p><u>Reporting</u></p> <ul style="list-style-type: none"> Standard Reports Financial Analytics 	<p>Wave 1A</p> <p>December 1, 2016</p>	<p>Offices of the Cook County President</p> <p>Cook County Health & Hospitals System</p> <p>Offices of Independently Elected Officials</p>
		<p>Wave 1B</p> <p>January 1, 2017</p>	<p>Forest Preserve District (FPD)</p>
Wave 2	<p><u>Hyperion</u></p> <ul style="list-style-type: none"> Hyperion Planning Plus Hyperion Project Financial Planning Hyperion Public Sector Planning & Budgeting Hyperion Financial Management Plus Hyperion Financial Close Management Hyperion Financial Data Quality Management 	<p>Wave 2</p> <p>April 1, 2017</p>	ALL
Wave 3	<p><u>HR/Payroll</u></p> <ul style="list-style-type: none"> Human Resources Payroll Self Service Human 	<p>Wave 3</p> <p>January 1, 2018</p> <p>April 1, 2018</p>	<p>ALL</p> <p>ESS for Core HR Users</p> <p>ESS for all users</p>

	Resources (ESS) Advanced Benefits Compensation Workbench Vertex Payroll Tax <u>Reporting</u> Standard Reports Human Resources Analytics		
Wave 4	<u>Supply Chain</u> Services Procurement Procurement Contracts Supplier Life Cycle Management Sourcing Inventory Management (Part 2) iSupplier Order Management Grants Project Costing <u>Extended Reporting</u> Standard Reports Procurement and Spend Analytics Project Analytics	April 1, 2018	ALL

1.4. Roles and Responsibilities Overview

Table 1.4-1 provides an overview of ERP project team roles by organization.

Table 1.4-1: ERP Project Role Summary

Name	Anticipated Roles
IBM Corporation	<ul style="list-style-type: none"> ▪ Prime contractor with overall responsibility and accountability for successful delivery of the project ▪ EBS functional and technical roles across the project ▪ Reports, Interface, Conversion, and Extension development ▪ Application Managed Services ▪ Cloud Managed Services including network connectivity to IBM data

Name	Anticipated Roles
	<p>centers</p>
<p>Clarity Partners</p>	<ul style="list-style-type: none"> ▪ Hyperion Budget Preparation and Reporting Lead with deliverable responsibility ▪ EBS functional and technical roles
<p>Next Generation, Inc.</p>	<ul style="list-style-type: none"> ▪ HCM /Payroll Lead with deliverable responsibility ▪ EBS functional and technical roles
<p>The William Everett Group</p>	<ul style="list-style-type: none"> ▪ Organization Change Management ▪ Training
<p>Level-1</p>	<ul style="list-style-type: none"> ▪ Infrastructure / technical roles
<p>County</p>	<ul style="list-style-type: none"> ▪ Provide guidance and leadership to the overall ERP project ▪ Provide the project team roles listed in Section 2.2 ▪ Meet County responsibilities as described within this SOW ▪ Serve as primary source of information regarding County business processes ▪ Serve as primary interface with the County's internal and external audit organizations ▪ Manage and direct the County IV&V contractor
<p>IV&V Contractor</p>	<p>Under a separate contract managed by the County, Grant Thornton will provide Independent Verification & Validation (IV&V) services for the ERP implementation project and managed services.</p> <ul style="list-style-type: none"> ▪ Deliverable reviews ▪ Quality gate reviews ▪ Project risk assessment ▪ Pre-implementation audit (current state County performance baseline) ▪ Post-implementation audit (KPIs and performance with post ERP environment) ▪ Managed services performance review ▪ Incident prioritization and compliance review ▪ Reporting

2. Implementation Team

2.1. Organization Chart

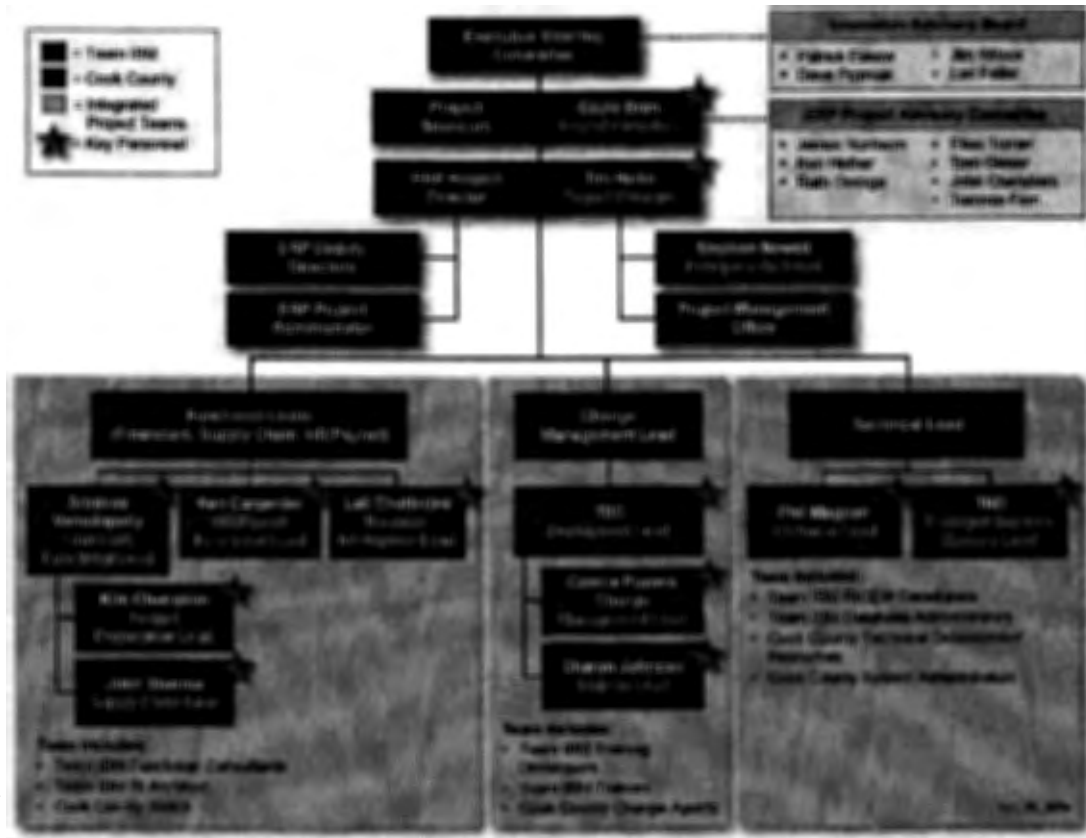


Table 2.1-1 lists IBM key personnel for Implementation Services.

Table 1.1-1: IBM Key Personnel

Key Provider Personnel	Key Personnel Role	Estimated Start Month	Estimated End Month	Primary Project Location
Gayle Brim	Project Executive	Month 1	Month 32	On Site
Tim Heiks	Project Manager	Month 1	Month 32	On Site
Srinivas Vemulapally	Financials Functional Lead	Month 1	Month 16	On Site
Ken Carpenter	HR/Payroll Functional Lead	Month 2	Month 28	On Site
Lali Chatterjee	Business Intelligence	Month 4	Month 26	On Site

Key Provider Personnel	Key Personnel Role	Estimated Start Month	Estimated End Month	Primary Project Location
	Lead			
Kim Champion	Budget Preparation Lead	Month 1	Month 18	On Site
Jitan Sharma	Supply Chain Lead	Month 1	Month 32	On Site
TBD	Deployment Lead	Month 5	Month 30	On Site
Connie Powers	Change Management Lead	Month 3	Month 30	On Site
Sharon Johnson	Training Lead	Month 5	Month 30	On Site
Phil Magnon	Technical Lead	Month 1	Month 31	On Site
TBD	Managed Services Delivery Lead (MSDL)*	Month 12	Month 120	Off Site

* When the Implementation Services are complete, the MSDL takes the role of Project Executive / Project Manager

2.2. IBM Project Team Roles and Responsibilities

Table 2.2-1 describes the IBM team member roles and responsibilities.

Table 2.2-1: IBM Roles and Responsibilities

Role	Responsibilities
IBM Project Advisory Committee	<ul style="list-style-type: none"> ▪ Brings experience and guidance for specific areas and integration of the solution ▪ Brings knowledge of the County to the project team ▪ Provides support to Project Sponsors and Executive Steering Committee
IBM Innovation Advisory Board	<p>Will help Cook County and the County/IBM project team explore topics such as the following:</p> <ul style="list-style-type: none"> ▪ Innovative uses of mobile technologies to streamline ERP processes and use of the system ▪ Opportunities for using new EBS capabilities being rolled out by Oracle ▪ Potential for leveraging leading practices from elsewhere in the business processes used by the County, including the hospitals, and the Forest Preserve District ▪ Linkages between Oracle EBS and other systems, based on experience elsewhere ▪ Opportunities to use new cloud technologies to enhance the County's ERP system as it evolves

Role	Responsibilities
IBM Project Executive	<ul style="list-style-type: none"> ▪ Responsible for overall direction and oversight to the project execution ▪ Works closely with Cook County Project Executive Leadership and Steering Committee ▪ Develops and implements a future vision for the partnership ▪ Works with County to resolve contract-related issues throughout the life of the Services. ▪ Reviews and recommends modifications to the overall schedule, scope, or deliverables prior to submitting them to the County for approval ▪ Maintains open lines of communication with project managers through regular meetings and communications
IBM Project Manager	<ul style="list-style-type: none"> ▪ Oversees day-to-day project operations ▪ Works closely with Cook County Project Director and Deputy Directors ▪ Aligns the Project Schedule and engagement objectives Manages projects comprising functional, technical, and change management teams ▪ Oversees knowledge transfer between consultants and Cook County project staff ▪ Obtains appropriate resources, as needed, to staff the implementation ▪ Allocates and deploys implementation team ▪ Reports overall project status to the Project Executive & Steering Committee ▪ Proactively identifies and recommends solutions that bring value to Cook County
IBM PMO	<ul style="list-style-type: none"> ▪ Performs administrative tasks to support Project Management Office, including tracking statistics and performance measures, monitoring and reporting issues, and supporting and performing communication tasks ▪ Maintains project calendar and schedules meetings ▪ Maintains project documentation library ▪ Maintains and updates issues tracking lists ▪ Administers all invoicing, billing, reconciliations and discrepancies ▪ Assist with preparing materials for project meetings
IBM Functional Leads	<ul style="list-style-type: none"> ▪ Provides significant business process experience in relevant functional area ▪ Coordinates multiple project contributors from the business side ▪ In conjunction with the County, oversee integration of their particular functional area ▪ Responsible for issue resolution management in their functional area ▪ Respond to project management regarding progress and issues

Role	Responsibilities
	<ul style="list-style-type: none"> ▪ Identify areas that provide opportunities for business process improvements and implementation leading practices ▪ Comply with project change control procedures put in place to escalate issues, risks, and change requests
<p>Team IBM Functional Consultants</p> <p>Team IBM BI Architect</p>	<ul style="list-style-type: none"> ▪ Meet business objectives for specific modules responsible ▪ Engage appropriate stakeholders so that their needs are met ▪ Lead cross-functional project teams with objectives involving their business domain experience ▪ Are responsible for the configuration of the end-to-end County business processes for specific module ▪ Are responsible for the development of the functional designs for the RICE items ▪ Lead and develop materials for the workshop sessions and other functional meetings ▪ Assist in resolving business and system integration issues ▪ Develop, validate, and test functional design in ERP solution ▪ Provides business process flows and design solution to the training affected by the implementation of the ERP solution ▪ Responds to project management regarding progress and issues
<p>IBM Technical Lead</p>	<ul style="list-style-type: none"> ▪ Provides significant infrastructure and technical experience (for example, technical architecture, interfaces/middleware technologies, database, operating systems, network, coding) ▪ Responsible for progress status and issue resolution management in relevant technical areas within the ERP project ▪ Comply with project change control procedures put in place to escalate issues, risks, and change requests ▪ Work together with County lead and other technical team members, as appropriate, to determine or confirm hardware and infrastructure, as required, related to the ERP project ▪ Coordinates all technical activities with County and IBM technical staff ▪ Works with County and other IBM leads to develop a system integration plan for enterprise technical architecture components ▪ Work with County and technical teams to assist in coordinating technical activities related to building ERP technical environment
<p>IBM Technical Development Resources</p>	<ul style="list-style-type: none"> ▪ Participate actively in technical workshop review sessions and other technical meetings ▪ Develops technical specifications to meet reporting, interface, conversion, and enhancement requirements ▪ Assist with data conversion activities ▪ Along with County Technical Lead, Coordinates County testing of new ERP custom objects (reports, interfaces, conversions, extensions- RICE)

Role	Responsibilities
	<ul style="list-style-type: none"> ▪ Work closely with IBM ERP Managed Services team to enable skills transfer ▪ Lead the development of technical design of specifications and Build/Unit Test to meet reporting, interface, conversion, and enhancement requirements ▪ Lead/prepare for technical workshop review sessions and other technical meetings ▪ Lead data conversion activities ▪ Responsible for reporting issues and managing and fixing the defect resolution process ▪ Responsible for managing the SDLC process
IBM Deployment Lead	<ul style="list-style-type: none"> ▪ Provides oversight and guidance for all Change Management and training activities related to the ERP project ▪ Leads the compliance of the project change control procedures put in place to escalate issues, risks, and change requests ▪ Provides leading practice guidance to the end user group ▪ Manages the readiness of the end-user Groups and cutover and Go-Live activities
IBM Change Management	<ul style="list-style-type: none"> ▪ Provides oversight and guidance for all organizational impact, design, and alignment activities related to technology adoption ▪ Defines and delivers business readiness support to affected areas, enabling the successful adoption of the ERP system and associated business process changes ▪ Recommends corrective actions where necessary to so that affected stakeholders are ready for implementation ▪ Assist with the outreach and track readiness and manage task activities to the end-user groups ▪ Continually shares knowledge with their County Project Team counterparts
IBM Training Designers / Developers	<ul style="list-style-type: none"> ▪ Contributes to the existing training strategy, works alongside County Change Management staff to recommend training methods, reviews role-based training requirements, and advises the project team on proven techniques to develop and deliver high quality training ▪ Oversees development of templates for developing training curricula and materials; templates must be easily customized by agency staff to include agency-specific terminology and work processes as part of the training roll- out at implementation ▪ Contributes to the development of measures to assess training effectiveness and helps modify training curriculum and methods as necessary based on assessments ▪ Provides proven business examples of training and documentation policies, procedures, and standards for the support organization ▪ Continually shares knowledge with County Project Team counterparts

Role	Responsibilities
<p>IBM Application Managed Services Delivery Manager</p>	<ul style="list-style-type: none"> ▪ Serves as the IBM point of contact to the county during the execution of the Application Managed Services; ▪ Coordinates the establishment of the project management environment, including reporting tools, monthly reports and governance/ communication protocols; ▪ Reviews project tasks, schedules, and resources and make changes or additions, as appropriate; ▪ Measures and evaluates progress against IBM Project Schedule, if applicable, with the County Project Director; ▪ Establishes documentation and procedural standards for deliverable Materials; ▪ Administers the SOW Change Control Procedure in conjunction with the County Project Director; ▪ Monitors resolution of Service Incidents; ▪ Performs problem management, and maintain and communicate escalation procedures; ▪ Tracks Service Incidents and Service Requests for analysis and reporting; ▪ Maintains project communications through the County Project Director; ▪ Conducts regular monthly status meetings with the County Project Director; ▪ Creates and delivers monthly status reports; ▪ Resolves deviations in the SOW in conjunction with the County Project Director; ▪ Coordinates and manages the in-scope activities of IBM Support Personnel; ▪ Works with the County Project Director to address and resolve IBM resource issues.
<p>IBM Application Managed Services Support Personnel</p> <ul style="list-style-type: none"> ▪ Technical ▪ Functional ▪ DBA 	<ul style="list-style-type: none"> ▪ Communicates appropriately with County to determine nature and severity level of Service Incidents and/or Service Requests; ▪ Appropriately analyze County Service Incidents to obtain resolution or work-around; ▪ Effectively communicates Service Incident resolutions to County; ▪ Resolves the Service Incident and/or Service Request; ▪ Documents the Service Incident work-around and/or resolution; ▪ Provides root cause analysis as part of Problem Management Process. ▪ Provides technical support related to the maintenance of the applications; ▪ Provides DBA (logical and physical) support for the Oracle applications.

Work under this SOW will be performed at the County facility in Chicago, Illinois and IBM’s Global Delivery Centers. The County acknowledges and agrees that IBM may assign global resources (e.g. nonpermanent residents used locally and personnel in locations worldwide) to provide the Services.

2.3 County Project Team Roles and Responsibilities

Table 2.3-1 describes the County roles and responsibilities necessary for the project and the corresponding minimum number of County FTE.

Table 2.3-1: County Project Team Roles and Responsibilities

Role	Responsibilities	Minimum County FTE
Steering Committee	<ul style="list-style-type: none"> ▪ Provides resources to project ▪ Makes policy decisions ▪ Acts as final authority on decisions related to project scope, schedule, and budget 	.1
Project Sponsors	<ul style="list-style-type: none"> ▪ Oversee progress of the project ▪ Provide guidance and direction to meet defined objectives 	.1
ERP Project Director	<ul style="list-style-type: none"> • Manage County personnel and responsibilities for this project • Serve as the interface between IBM and all County departments participating in the project • Administer the Change Order with the IBM Project Manager • Participate in project status meetings • Obtain and provide information, data, and decisions to IBM in a timely manner • Help resolve project issues and County deviations from the estimated schedule, and escalate issues within County organization, as necessary 	1
ERP Deputy Director	<ul style="list-style-type: none"> ▪ Under direction of the Project Director, manages scope, schedule and budget for project ▪ Manages execution of the approved project work plan ▪ Manages progress and report project status to the County Project Director ▪ Assigns project resources and priorities ▪ Reviews and approves all deliverables ▪ Manages project risks and issues and resolution with timely escalation ▪ Manages County project team staff ▪ Works with IBM and the County to confirm the fit of business requirements with ERP solution ▪ Works with all project team members in coordinating 	1

Role	Responsibilities	Minimum County FTE
	<p>project activities</p> <ul style="list-style-type: none"> ▪ Acts as day-to-day contact to IBM ▪ Monitors compliance with standards for documentation and training 	
ERP Project Administrator	<ul style="list-style-type: none"> ▪ Performs administrative tasks to support Project Management Office, including tracking statistics and performance measures, monitoring and reporting issues, and supporting and performing communication tasks ▪ Maintains project calendar and schedules meetings ▪ Maintains project documentation library ▪ Keeps and updates issues tracking lists ▪ Administers all invoicing, billing, reconciliations, and discrepancies ▪ Assists with preparing materials for Project Meetings 	1
County Functional Leads	<ul style="list-style-type: none"> ▪ Provide significant business process experience relevant functional area ▪ Coordinate multiple project contributors from the business side ▪ In conjunction with IBM, oversee integration of their particular functional area ▪ Responsible for issue resolution management in their functional area ▪ Respond to project management regarding progress and issues ▪ Identify areas that provide opportunities for business process improvements and implementation leading practices ▪ Comply with project change control procedures put in place to escalate issues, risks, and change requests 	1 Financial Lead 1 Budget/CAFR Lead 1 HR Payroll Lead 1 Supply Chain Lead
County Subject matter Experts (SMEs)	<ul style="list-style-type: none"> ▪ Provide knowledge and subject matter expertise of respective functional or technical area and existing business processes to ERP project ▪ Participate actively in workshop sessions and other functional meetings ▪ Assist in resolving business and system integration issues ▪ Develop, validate, and test functional design in ERP solution ▪ Provide insight into the organizational change management requirements associated with end users affected by the implementation of respective business areas 	1 General Ledger 1 Accounts Payable .5 Accounts Receivable .5 Capital/Fixed Assets 1 Project Costing 1 Grants Accounting 1.5 Purchasing 2 Inventory Mgmt 1 Budget/CAFR/

Role	Responsibilities	Minimum County FTE
	<ul style="list-style-type: none"> ▪ Serve as communication point for end user community as part of the change management process ▪ Provide insight into the training requirements associated with end users affected by the implementation of the ERP solution ▪ Respond to project management regarding progress and issues ▪ Assist with the analysis of business process related issues. ▪ Provide functional information about the existing application environment; ▪ Provide and review data file information for interface & batch jobs; ▪ Provide County data to support testing activity; ▪ Provide end user training; ▪ Participate in status meetings; ▪ Participate in the deliverable Materials reviews as needed; ▪ Participate in User Acceptance Testing 	<p>Financial Reporting 1 Benefits 1 Human Resources 1 Payroll .5 HR Self Service 1.5 Procurement Contracts 1 Supplier & Sourcing County SMEs (2 FTE at .2 each) FPD SMEs (13 at .2 FTE each) 2 Hospital SMEs (10 at .2 FTE each) Additional County SMEs (11 at .2 FTE each)</p>
<p>ERP (Technical) Deputy Director County /Technical Lead</p>	<ul style="list-style-type: none"> ▪ Under direction of the Project Director, manages scope, schedule and budget for project ▪ Manages execution of the approved project work plan ▪ Manages progress and report project status to the County Project Director ▪ Assigns project resources and priorities ▪ Reviews and approves all deliverables ▪ Manages project risks and issues and resolution with timely escalation ▪ Manages County project team staff ▪ Works with IBM and the County to confirm the fit of business requirements with ERP solution ▪ Works with all project team members in coordinating project activities ▪ Acts as day-to-day contact to IBM ▪ Monitors compliance with standards for documentation and training ▪ Provides significant infrastructure and technical experience (for example, technical architecture, interfaces/middleware technologies, database, operating systems, network, coding) ▪ Responsible for progress status and issue resolution 	<p>1</p>

Role	Responsibilities	Minimum County FTE
	<p>management in their technical area</p> <ul style="list-style-type: none"> ▪ Comply with project change control procedures put in place to escalate issues, risks, and change requests ▪ Works together with IBM lead to determine hardware and infrastructure ▪ Works with County Bureau of Technology to acquire needed hardware, software, and related services for ERP project ▪ Coordinates all technical activities with County and IBM technical staff ▪ County and IBM leads work to develop a system integration plan for enterprise technical architecture components ▪ County and IBM lead work with technical team to determine hardware and infrastructure ▪ County and IBM lead work with technical teams to assist in coordinating technical activities related to building ERP technical environment within county data center ▪ Overall responsibility for the data extraction from legacy systems and associated data cleansing ▪ Primary county contact/responsible individual for interfaces to county legacy systems ▪ Coordinates County legacy related testing (including conversions and interfaces) with new ERP solution tests ▪ County Lead serves as central contact for IBM 	
<p>County System Administrator Support Resources</p>	<ul style="list-style-type: none"> ▪ Provide technical support to IBM ▪ Responsible for maintaining the County technical infrastructure for legacy systems which may include system administration, application, database, and middleware support (including that which is outside of the ERP system such as network, interfaces and conversion) ▪ Work closely with IBM to enable skills transfer and effectively shadow ▪ Facilitate resolution of legacy application technical problems ▪ Perform checks and tasks within technical environment ▪ 	<p>As Needed</p>
<p>County Technical Development Resources</p>	<ul style="list-style-type: none"> ▪ Participate actively in technical workshop review sessions and other technical meetings ▪ Develops technical specifications to meet reporting, interface, conversion, and enhancement requirements 	<p>.2 System Administrator .2 Database</p>

Role	Responsibilities	Minimum County FTE
	<ul style="list-style-type: none"> ▪ Assist IBM with data conversion activities including data extraction from legacy systems and associated data cleansing. Coordinates County legacy related testing (including conversions and interfaces) with new ERP solution tests ▪ Work closely with IBM to enable skills transfer ▪ Lead the development of technical design of specifications and Build/Unit Test to meet reporting, interface, conversion, and enhancement requirements ▪ Lead/develop for technical workshop review sessions and other technical meetings ▪ Lead data conversion activities ▪ Are responsible for reporting issues and managing and fixing the defect resolution process ▪ Are responsible for managing the SDLC process 	Administrator .25 Network Administrator 3 Interface Developers 3 Conversion Developers
County Change Management Lead	<ul style="list-style-type: none"> ▪ Works with IBM to produce comprehensive change management and communications plans ▪ Leads County team responsible for change management ▪ Provides insight, County specific knowledge, and other information to the IBM Change Management team ▪ In conjunction with IBM, implements the change management strategy, including communication and change management ▪ Implements the ERP communications plan ▪ Helps identify areas that provide opportunities for business process improvements and then implements leading practices ▪ Complies with project change control procedures put in place to escalate issues, risks, and change requests ▪ Provides administration and technical support for creating project templates, communications, and presentations <p>Change Agents :</p> <ul style="list-style-type: none"> ▪ Provide resource(s) from departments that are contacts to the project team and department end users ▪ Are responsible for communicating the department tasks and coordinating with the department their status, issues, and risks to readiness ▪ Serve as implementation champions 	1 Lead Change Agents (.2 FTE per resource) depends on # of departments per phase and # of users per department. The role is a part-time per each resource with change agents representing each county organization as required including FPD, CHHSS, Sheriff, DHS, Highway, etc.
County Training Coordinator	<ul style="list-style-type: none"> ▪ Works with the County and IBM Change Management Leads to Plan Training Schedule and Coordinate Training Execution 	.5 Lead

Role	Responsibilities	Minimum County FTE
	<ul style="list-style-type: none"> ▪ Responsible for identification and scheduling of training facilities and logistics ▪ Responsible for identifying, registering and tracking training attendance for County users 	
<p>County Managed Services Delivery Manager</p>	<ul style="list-style-type: none"> ▪ Identify a County support team who will be responsible for providing assistance to the IBM Support Personnel. For example, for severity level 1 Service Incidents, County needs to be immediately available to the IBM Support Personnel until the Service Incident is resolved or a work-around has been identified, and for Service Requests, County needs to provide assistance in defining and clarifying requirements; ▪ Make available subject matter experts; ▪ Maintain overall project schedules to comply with the SOW; ▪ Provide sign-off on project deliverable Materials; ▪ Participate in project status meetings; ▪ Ensure that County user community reports Service Incidents and Service Requests through the tool (s) and processes defined. ▪ Conduct governance meetings (e.g. project steering committee meetings), prioritizing the work efforts in conjunction with the IBM Service Delivery Manager; ▪ Resolve deviations from the SOW in conjunction with the IBM Service Delivery Manager; ▪ Help to resolve project issues and escalate issues within the County organization, as necessary; ▪ Manage the County personnel and responsibilities for this project; ▪ Serve as the interface between IBM and all County departments participating in the project; 	<p>1.0</p>
<p>County Subject matter Experts (SMEs)</p>	<ul style="list-style-type: none"> ▪ Assist with the analysis of business process related issues. ▪ Provide functional information about the existing application environment; ▪ Provide and review data file information for interface & batch jobs; ▪ Provide County data to support testing activity; ▪ Provide end user training; ▪ Participate in status meetings; ▪ Participate in the deliverable Materials reviews as needed; ▪ Participate in User Acceptance Testing 	<p>As needed</p>

Role	Responsibilities	Minimum County FTE
County End User	<ul style="list-style-type: none"> ▪ Report Service Incidents and/or Service Requests ▪ Perform User Acceptance Testing 	As needed

3. Implementation Services

3.1. General Approach

IBM will use the IBM Oracle Method (IOM) which focuses on quick wins and success, obtaining the organizational sponsorship and change management levers to drive the project. From a technology standpoint, the IOM considers the application architecture and development tools of Oracle applications and provides approaches to accelerate the overall implementation schedule, while effectively managing risk.

The IBM Oracle Method combines the Oracle® Unified Method (OUM) with IBM methods, thought leadership, and assets to create our approach for implementing Oracle ERP Applications. Using OUM as the core of the IBM Oracle Method allows the County/FPD base its implementation on the same method and templates Oracle has standardized across its products and applications, including Oracle EBS, Hyperion, and OBIEE.

The IBM Oracle Method includes the following key aspects:

- Employs interactive business modeling workshops to expose users to the system, validate system processes and configuration through prototyping, secure early buy-in to the design, and support knowledge transfer with the County/FPD project team
- Emphasizes business process re-engineering around the package-enabled practices within the Oracle application, thereby encouraging a "vanilla" implementation to minimize ongoing maintenance and upgrade costs
- Uses Oracle's business configuration model and associated development tools for rapid development of reports, customizations, interfaces, and conversions
- Provides an iterative and incremental design, develop, and test process that incorporates testing and validation throughout the project lifecycle, providing a higher degree of quality assurance and early user feedback loops, rather than traditional methods that wait towards the end of a project to test for quality and user acceptance
- Increases project efficiencies by integrating accelerators and selected tools into each phase of the methodology, including templates and practice aids

The IBM Oracle Method is executed over five phases, in addition to Project Start up and Project Closure, and supports an iterative and incremental delivery approach, as shown in the Figure that follows.



3.2. Implementation by Phase

IBM will implement the ERP solution incrementally in Waves as described in the Deployment Schedule Summary set forth in Table 1.3-1 in Section 1.3 hereof. Phases are repeated for each Wave.

3.3.1 Project Management

IBM will provide ongoing project management for the IBM responsibilities in this SOW. The purpose of this activity is to provide technical direction and control of IBM project personnel and to provide a framework for project planning, communications, reporting, procedural and contractual activity. This activity is composed of the following tasks:

- a) Review the SOW and the contractual responsibilities of both parties with the County ERP Project Director
- b) Maintain project communications with the County ERP Project Director
- c) Coordinate the establishment of the project environment
- d) Establish documentation and procedural standards for deliverable Materials
- e) Prepare and maintain the Project Schedule which lists the IBM related activities, tasks, assignments, and milestones for performance of this SOW
- f) Review project tasks, schedules, and resources and make changes or additions, as appropriate. Measure and evaluate progress against the IBM Project Schedule
- g) Work with the County ERP Project Director to address and resolve deviations from the IBM Project Schedule

- h) Conduct regularly scheduled project status meetings
- i) Prepare and submit weekly Status Reports to the County ERP Project Director
- j) Administer the SOW Change Control Procedure with the County ERP Project Director
- k) Coordinate and manage the technical activities of IBM project personnel

IBM will propose for County's approval a set of project standards prescribing the adopted processes, responsibilities, and timeframes for key project activities, including, but not limited to: deliverable review and acceptance; issue management; risk management; software construction standards; work product reviews; and quality management.

Attachment 14 lists the Project Management deliverables that IBM will prepare in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

3.3.2 Information Security Management

IBM will provide ongoing Information Security Management for the activities defined in this SOW. The purpose of this activity is to provide mutually agreed upon understanding of security measures to protect information under this SOW. IBM will perform IBM roles and responsibilities as indicated in Attachment 12 – Information Security Table of Roles and Responsibilities.

3.3.3 Project Start Up Phase

Each deployment Wave will begin with the Project Start Up Phase. The purpose of the Project Start-up Phase is to launch the project so that a clear understanding of scope, deliverables, and outcomes is shared by the project team. Key activities in this Phase are planning the work effort, and developing the administrative policies and procedures that will guide the project such as risk management, quality management, and subcontractor management.

The IBM Project Manager and IBM PMO staff will work with the County's Project Management team to acquire the resources and tools necessary for Implementation. IBM will develop the baseline Project Schedule. The schedule will incorporate the proposed implementation methodology, and contract deliverables, thereby detailing the project critical path and milestones.

IBM will also prepare the necessary presentation materials and host the project kick-off meeting for the project team and other key stakeholders. IBM will produce the project charter and implement project management processes, including weekly status reporting, project decision management, scope management, risk management, issue management, work plan development, and communications management.

As part of Project Start Up, IBM will work with the County's Project Management Team to introduce the IBM team to key stakeholders and to understand their issues and priorities. To prepare for these

meetings, IBM will request from the County relevant project and organizational information/documentation to understand County staffing, processes and technology.

Table 3.3.3-1 lists the major tasks for this Phase and the roles played by each Party. The Project Start Up Phase will conclude with the Quality Gate Check – Initiation/Concept Phase.

Table 3.3.3-1: Project Start Up

Task/Milestone Name	County	IBM
Confirm scope of the proposed solution	Participate	Lead
Update initial project schedule	Participate	Lead
Establish the PMO environments and tools	Participate	Lead
Review and confirm Information Security Roles and Responsibilities (Attachment 12)	Assist	Lead
Provision environments and network connectivity	Participate	Lead
Install software	Participate	Lead
Set-up County VPN and NetBond end-point connectivity	Lead	Participate
Prepare Project Start Up deliverables for each Wave as specified in Attachment 14	Participate	Lead
M1 – Quality Gate Check – Initiation/Concept	Lead	Participate

Attachment 14 lists the deliverables that IBM will prepare for the Project Start Up Phase in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

3.3.4 Inception Phase

The purpose of the Inception Phase is to define the lifecycle objectives for the project and achieve concurrence among stakeholders. This phase confirms functional and technical requirements and identifies risks that must be addressed before the project can proceed.

IBM will begin by hosting a Method Adoption Workshop with County and IBM team members to review the Implementation approach and achieve a common understanding of the processes and tools that will be used to deliver the project. IBM will conduct project team training in accordance with the Core Project Team Training Plan, and we will establish the technical environment that will be used to conduct Inception and Elaboration Phase activities. The core project team training enables the core project team to have an understanding of the software functionality and usability to enable them to effectively participate during the Elaboration phase. This training consists of core out-of-the-box functionality of the ERP software solution to enable the core project team can relate software base functionality and processes to the subsequent design and configuration activities.

IBM Functional Leads will organize a series of requirements workshops, working with County Business Process Owners and other stakeholders. During these workshops we will confirm functional and technical

requirements and IBM will demonstrate delivered Oracle functionality supporting County business processes.

Rapid Prototype (CRP 0) – This event will consist of a walk-through of the proposed business processes using the Commercial Off The Shelf (COTS) functionality based on leading industry practices. This activity will focus on demonstrating how the composite processes will be enabled by the solution. The scenarios and use cases will be demonstrated by IBM.

Any changes to the system development scope of the project will be mutually agreed in the Inception and Elaboration phase and reconciled against the scope of work contained herein.

Table 3.3.4-1 lists the major tasks for this Phase. The Inception Phase will conclude with the Quality Gate Check – Project Planning.

Table 3.3.4-1: Inception Phase

Task/Milestone Name	County	IBM
Conduct Project Team Training	Participate	Lead
Conduct Chart of Accounts Design Workshops	Assist	Lead
Conduct Business Requirements Workshops	Assist	Lead
Review/Validate Business Requirements Workshops	Participate	Lead
Create Conceptual Prototype/CRP - 0 – Inception	Participate	Lead
Gather Supporting Requirements	Participate	Lead
Specify Key Structure Definition (Define Configuration)	Participate	Lead
Train Project Team	Participate	Lead
Conduct Alignment Workshops - Inception	Participate	Lead
Prepare Inception Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M2 – Quality Gate – Project Planning	Lead	Participate

Attachment 14 lists the deliverables that IBM will prepare for the Inception Phase in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

3.3.5 Elaboration Phase

The purpose of the Elaboration Phase is to begin validating requirements, partitioning of the solution, functional prototyping, and baseline architecture of the system. During the Elaboration Phase, IBM's understanding of the County's business requirements is verified to reduce development risk.

IBM functional teams will continue to work with County Business Process Owners and key stakeholders to refine the solution. IBM will conduct a series of fit/gap workshops of the County's requirements against the proposed solution to categorize each requirement and propose recommended solutions for each gap. For any new gaps identified that were not identified in the SOW and associated Attachments, the gaps

will be further evaluated for workaround options to avoid customization if possible. For every new (i.e., not identified in the SOW) software customization request, IBM will present customization options and related cost-benefit analyses as part of the Cost Benefit Analysis and Customizations Approval Deliverable.

The County Business Process Owners will confirm gap resolutions and the IBM functional team will develop Functional Design Specifications for identified RICEW objects. County Business Process Owners will review and confirm functional designs to complete this Phase.

During this Phase, IBM will capture County organization-specific requirements during the global design process, with the focus is to maximize the use of the global design, where applicable.

Conference Room Pilot (CRP) 1 – The solution will be augmented by information obtained from the user community during the proof of concept, design of the core processes and specific configurations to support County business processes. The following are the key testing aspects of CRP1:

- COTS Functionality – End to End business events that are focused on the project phase
- RICE Objects – will not be tested in CRP1
- This CRP will be executed on sample data

Table 3.3.5-1 lists the major tasks for this Phase. The Elaboration Phase includes two Quality Gate Checks – Requirements Analysis and Design (Functional).

Table 3.3.5-1: Elaboration Phase

Task/Milestone Name	County	IBM
Gather Business Requirements - Elaboration	Participate	Lead
Develop Use Cases (Test Scenarios)	Participate	Lead
Create Conceptual Prototype/CRP - 1 – Elaboration	Participate	Lead
Define Project Strategy (Testing, Conversion, Interface, Training, environment, Deployment, Cutover, Post Support, Benefits Realization)	Participate	Lead
Define Infrastructure	Participate	Lead
Develop Test Plans	Participate	Lead
Prepare Environments - Elaboration (Test Environments)	Participate	Lead
Perform Fit Gap Analysis	Participate	Lead
Baseline Software Architecture	Participate	Lead
Design - Elaboration (Functional and Configuration Designs)	Participate	Lead
Develop/Execute Prototypes - CRP Materials	Participate	Lead
Prepare to Acquire and Convert Data - Elaboration (Prepare for Conversion Testing)	Participate	Lead
Prepare Elaboration Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M3 – Quality Gate – Requirements Analysis	Lead	Participate

Task/Milestone Name	County	IBM
M4 – Quality Gate – Design (Functional)	Lead	Participate

Attachment 14 the deliverables that IBM will prepare for the Elaboration Phase in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

3.3.6 Construction Phase

The purpose of the Construction Phase is to take the solution through development and testing of components and integration with a system that is ready for production, to validate components fit together, and to prepare the application for the Acceptance Test and deployment. The Construction Phase clarifies the remaining requirements and completes the development of the system based upon the designs completed during Elaboration.

The IBM development team will create technical specifications and unit test plans for each RICEW object and review these with the Functional Leads.

The IBM testing team will create test scenarios and test scripts for system and integration test.

The IBM Functional Team will configure the Oracle Application modules needed to deliver the solution.

IBM will perform Unit testing and integration testing of the interfaces within Oracle EBS schema only. Corresponding validation of at 3rd Party software schema is out of scope.

IBM will conduct System and Integration Tests (SIT) and validate the solution performs in accordance with the functional design and that functional and technical requirements have been addressed. SIT includes functional testing along with reports, interfaces, enhancements and conversions.

- SIT 1 – The system integration testing will be performed on an environment that has the planned production configurations and at least 50% of the RICE objects.
- SIT 2 – The SIT activities will be performed on an environment that has the planned production configuration and 100% of the approved RICE objects. For this activity, IBM anticipates County Super Users will participate in the testing.

With Wave 3 Human Resources and Payroll, IBM will conduct a maximum of two (2) parallel tests of payroll prior to Go-Live to reconcile the expected results of payroll processing with actual results of County payroll processing. IBM will resolve identified and agreed-upon issues prior to commencement of the successive iteration of parallel payroll tests.

Table 3.3.6-1 lists the major tasks for this Phase. The Construction Phase includes two Quality Gate Checks –Design (Technical) and Development.

Table 3.3.6-1: Construction Phase

Task/Milestone Name	County	IBM
Finalize Requirements Matrix for Fits/Gaps	Participate	Lead

Task/Milestone Name	County	IBM
Perform Test Planning (System & Integration Test Plans)	Participate	Lead
Prepare Environments - Construction (Test Environment)	Participate	Lead
Finalize Configuration	Participate	Lead
Design Application Development Technical Component (Technical Design)	Participate	Lead
Prepare Construction Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M5 – Quality Gate – Design (Technical)	Lead	Participate
Build Application Development Technical Components	Participate	Lead
Develop and Perform Unit Test – Elaboration	Participate	Lead
Build Integration Test Scripts- Elaboration	Participate	Lead
Integration Test - Construction	Participate	Lead
Build System Test Script- Elaboration	Participate	Lead
System Test - Construction	Participate	Lead
Prepare for Performance Testing	Participate	Lead
Prepare for Transition	Participate	Lead
Prepare for Cutover	Participate	Lead
Test Infrastructure	Participate	Lead
Prepare to Acquire and Convert Data – Construction	Lead	Assist
Acquire and Convert Data - Construction	Lead	Assist
User Reference & User Guides	Participate	Lead
Conduct Role/Job Impact Analysis	Participate	Lead
Design End-User Training	Participate	Lead
Build End-User Training	Participate	Lead
Train End Users - Construction	Participate	Lead
Prepare Construction Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M6 – Quality Gate – Development	Lead	Participate

Attachment 14 lists the deliverables that IBM will prepare for the Construction Phase in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

Additional County Construction Phase Responsibilities

- The County shall provide requisite test data to exercise any batch processes required for performance testing to measure performance (throughput, duration)

- The County shall approve the peak workload distribution models, for the workload volume tests defined by the IBM Performance Test Team based on the input obtained from the County business team through workshop sessions
- The County shall approve the Key Performance Indicators (KPIs) and / or Non-Functional Requirements (NFR), for performance testing. These can be developed through joint workshop sessions with County business SMEs

3.3.7 Transition Phase

The Transition Phase can span several iterations, with testing the product in preparation for release and making minor adjustments based on user feedback. The purpose of the Transition Phase is to take the solution from development through Acceptance Test to the deployment of the solution to support County Business Processes for end users.

During Transition, IBM's Testing Lead and IBM Functional Team will support development of Acceptance Test Scripts and will facilitate execution of Acceptance Testing. IBM will provide initial training for users participating in Acceptance Testing. The County user community will be responsible for executing all the test scripts for their deployed business processes.

IBM's Data Conversion and Cutover teams will develop plans to support Go-Live and will conduct multiple "dry run" (mock) conversions to establish the sequencing and timing of the production cutover.

The Transition Phase includes a Quality Gate Check meeting following Acceptance Test and a final go/no-go decision meeting just prior to Go-Live.

With approval from the County, production cut-over activities will be performed and the ERP solution will be deployed to production. For purposes of this SOW, "Go-Live" for a given Wave will be considered to have occurred when the all applications or modules within such Wave have been successfully transitioned to the Production environment, passed acceptance testing and any applicable Quality Review Gates.

Also during the Transition Phase, support processes begin with the start of the Transition to Managed Services. IBM will confirm service levels and measurement criteria, and help desk processes and procedures will be established to provide a smooth integration with the County's business operations. This work may be completed with a combination of on-site and remote Support Personnel with the allocation of resources being defined before this phase begins.

The Transition to Managed Services includes the following components:

- Transition Start Up – the objective of Transition Planning is to develop a comprehensive transition plan based on the characteristics of the project;
- Services Transition – the objective of the Services Transition is to define the initial service objectives, which will be confirmed during the measurement period, and to prepare for support of the in-scope services. Services Transition consists of a set of activities focused on transitioning the operational processes, setting up the organization governance model for Managed Services, establishing service levels and metrics, and documenting the communications and escalation model for ongoing support. The processes to be used to support the County user community will be established to provide a smooth integration with County's business operations.

- **Application Transition** – the objective of Application Transition is to acquire an understanding of the County application system, including those business processes that are critical, the technical environment, and the functionality to be supported. Application Transition includes the Knowledge Transfer activities required to gain the knowledge required to support the applications as well as the demonstration of that knowledge in the Guided Perform, Assisted Perform, and Parallel Perform phases. This activity will be limited to the new team members who will come onboard for Managed Service. Team Members moving from Implementation Team to Managed Services Team will not require Application Transition.

Additional detail regarding the Transition to Managed Services is included with Appendix 15.

The table that follows lists the major tasks for the Transition Phase. The Transition Phase includes two Quality Gate Checks –Test and Implementation.

Table 3.3.7-1: Transition Phase

Task/Milestone Name	County	IBM
Perform one User Acceptance Test	Lead	Assist
Conduct Performance Test	Participate	Lead
Prepare Training Materials	Participate	Lead
Prepare Construction Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M7 – Quality Gate – Test	Lead	Participate
Train End Users	Assist	Lead
Conduct IT Alignment	Participate	Lead
Convert Data – Transition	Assist	Lead
Transition to Managed Services	Participate	Lead
Execute Cut-Over	Participate	Lead
Prepare Construction Phase deliverables for each Wave as specified in Attachment 14	Participate	Lead
M8 – Quality Gate – Implementation	Lead	Participate
M9 – Final Acceptance	Lead	Participate

Attachment 14 lists the deliverables that IBM will prepare for the Transition Phase in accordance with the Deliverable Expectation Documents (DED) in Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Section 7 of this SOW.

3.3.8 Production Phase (Project Close)

IBM will close each deployment Wave at Go-Live and transition to Managed Services where IBM operates the newly developed system and supports the users. As part of Managed Services, IBM will provide two months of Hypercare following each Wave, led by the implementation team, before transitioning completely to the managed services model. Managed Services tasks and deliverables are described in Section 4.0.

3.3. Project Status Reporting

IBM will participate in weekly project status meetings with the Director of ERP (or his designee) and prepare weekly status reports. IBM will use the status meetings and status reports to discuss tasks that may impact the project scope or timeline. During these sessions, the Director of ERP's feedback to IBM will allow for productive dialogue throughout the life of the project.

3.4. Implementation Services Completion Criteria

IBM will have fulfilled its obligations under this SOW when one of the following first occurs:

- a. The deliverables specified in this SOW have been completed and accepted by the County; or
- b. The County or IBM terminates the Services in accordance with the provisions of the Term and Conditions.

4. Application Management Services

4.1. Project Scope Summary

Application Managed Services (AMS) will start with Wave 1 "Go Live" and will include:

- Transition to Managed Services
- Project Management
- Post-Go-Live "Hypercare"
- Troubleshoot and Resolve (Level 2/3 Application Support)
- Minor Enhancements
- Batch/Interface Management
- Technical Support
- Maintaining Application Currency
- Logical/Application DBA Support
- Physical DBA Support

The Managed Services scope is based on the implementation of the ERP solution described in this SOW (i.e., the in-scope application). Changes will be managed in accordance with the SOW Change Control Procedure.

The County and IBM shall, during the six months following the initial Go-Live and during three months following each subsequent Wave, measure and monitor the actual monthly consumption (i.e., the actual hours of utilization for FTE-based services) and service levels, with the intent of using such measured activity to confirm and reasonably adjust the support model, the resource staffing levels and/or SLAs with the County/FPD. This may result in mutually agreed upon adjustments to the services and charges.

Upon completion of the baseline periods, the SLAs will begin to be enforced.

In addition, the following apply to this SOW:

- For AMS services US-based Support Personnel will provide the Services under this SOW from 7:00 AM to 5:00 PM Central Time on Business Days. As necessary, the County will provide after-hours access to County facilities to IBM personnel. Out-of-town IBM personnel may work hours other than those defined as normal business hours to accommodate their travel schedules. Support Personnel located outside the USA (in India) will available 4:00 AM to 1:00 P.M Central Time, Monday through Friday and will abide by their country's IBM holidays, a list of which will be provided to the County each year. On Call Support will be provided 24x7 for Severity 1 issues.
- All times stated in this document is Central Time (CT) unless otherwise noted.
- Any development performed by the County or a third party engaged by the County will be subject to a technical quality testing process and approved by IBM (which approval will not be unreasonably withheld, delayed or conditioned) before it can be added as an in-scope application component. If IBM reasonably believes the addition of such development as an in-scope application development will impact its service delivery and/or fees, IBM may raise a change request pursuant to the SOW Change Control Procedure.
- Key metrics (such as problem tickets, application modules, database environments/ instances, interfaces, locations, users and services, etc.) used in developing the managed services solution will be reviewed at least once a year after final acceptance of the rollout of all the waves, to determine if any mutually agreed upon adjustments to the services and contract are required.

Exclusions

The following exclusions apply to this SOW:

- IBM does not warrant the functionality of Oracle software. IBM will work with Oracle on behalf of the County in resolving problems related to in-scope vendor software;
- Support for County applications and systems, other than in-scope software (Section 1.1), is not in the scope of this SOW unless it has been specifically included in this SOW;
- Support for the originating system of an inbound interface and the receiving system of an outbound interface is not in the scope of this SOW, unless it has been otherwise specifically included in this SOW.
- Support for County development, maintenance, or problem resolution related to County owned or leased networks including, but not limited to, Local Area Networks (LAN), Wide Area Networks (WAN), and leased lines, is not in the scope of this SOW, unless it has been otherwise specifically included in this SOW;
- Support for County development, maintenance, or problem resolution related to County workstation and/or desktop issues is not in the scope of this SOW, unless it has been otherwise specifically included in this SOW;
- Enhancements or projects defined as a work effort requiring greater than 100 hours to complete), such as major application & database upgrades or new module implementations, are not in scope of base services.
- Support for new developed functionality or new modules to in-scope applications that are implemented by the County or a third party engaged by the County subject to the SOW Change Control Procedure.

4.2 Level 1 Helpdesk

The County will provide the Level 1 Helpdesk. The primary responsibility of the County Level 1 Helpdesk is to provide a single point of contact for the County Oracle Application user community, to gather initial information on the Service Incident and/or Service Request, to resolve Service Incidents which are within their scope of service, and to forward unresolved Service Incidents and/or Service Requests to the appropriate support resource.

The County's Level 1 Helpdesk agents will:

- a. Provide help desk support to the user community;
- b. Attempt to resolve all calls to the best of their ability while on the phone with the user through a combination of knowledge of the applications and scripted solution responses for recurrent or common user issues;
- c. Answer "how-to" questions; and
- d. Perform call outs to IBM for severity one issues to appropriate Level 2/3 Support Personnel, document and transfer tickets requiring level 2/3 response, maintain the opening and closing of tickets for tracking purposes and track call response metrics for internal process improvement efforts.
- e. Perform user profile maintenance and password reset.

In addition, the County will:

- Provide the IBM SDM with current electronic lists of their designated personnel (e.g., help desks within each functional area, individuals to be notified in situations where escalation is necessary)
- Ensure that all of the County user community adheres to the call flow process
- Log all incidents through the County's Level 1 help desk tool (Cherwell Ticket Management System). Service incidents are related to a single reported problem. Multiple problems grouped into a single service incident are equivalent to multiple service incidents and are tracked accordingly
- Provide IBM access to use of the Cherwell Ticket Management System as required for IBM to provide the Services described in this SOW, including an appropriate means of tracking incidents and generating appropriate incident management statistics to enable service level reporting.

4.3 Application Managed Services Tasks and Deliverables

4.3.1 Project Management

Description

Ongoing Project Management is focused on managing the delivery of the services and deliverable Materials included in this Statement of Work, including coordinating IBM Support Personnel, project communications, reporting, procedural activity, and contractual activity.

Scope of Services

IBM will provide a Managed Service Delivery Manager (MSDM) for the duration of the County SOW period to provide oversight and coordination of the services and deliverable Materials included in this SOW. The MSDM will manage and oversee the quality of IBM services and provide ongoing project management for the IBM responsibilities. The purpose of this project management activity is to provide technical direction and control of IBM personnel and to provide a framework for project planning, communications, reporting, procedural and contractual activity.

IBM will participate in weekly status meetings with the Director of ERP (and/or his designee(s)) and prepare weekly status reports.

IBM will prepare an Annual Plan presentation on an annual basis. The plan will include (a) a review and assessment of the immediately preceding Annual Plan; (b) a review and assessment of the impact on the Services of the County’s operational and IT strategies and plans to the extent made known to IBM; and, (c) a discussion of the Application upgrade activities undertaken during the previous year and/or any planned future Application upgrade activities.

Deliverable Materials

Deliverable	Task/Deliverable Name	County	IBM
49	Managed Services Status Report (Monthly) – Combines Managed Services Status reports, SLA Compliance Report and Performance Trend Analysis	Participant	Lead
48	Standard Operating Procedures for Operations & Support Services (Annual Update)	Participant	Lead
TBD	Annual Plan	Participant	Lead

Completion Criteria

The Ongoing Project Management service will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.2 Hypercare

Description

Hypercare is a time period during which application managed services are provided by the implementation team. During this time period, the implementation team is responsible for all support consisting of (but not limited to) production break/fix tickets, batch/ interface management, system administration, security and data base administration. In parallel, the IBM team will be performing Transition to Managed Services tasks.

IBM will provide two months of Hypercare support for each Wave following the Go-Live of such Wave.

Scope of Services

The Scope of Services for Hypercare includes the following:

- a. Support for end users and the Level 1 Help Desk. This support will assist Level 1 help desk with service incidents during this period of increased call volumes
- b. Monitor the system performance and respond to system problems
- c. Accept Service Incidents from the Level 1 Help Desk for Service Incidents caused by breaks in existing functional configuration and/or existing custom development;
- d. Diagnose, resolve and/or coordinate the resolution of the Service Incidents for Oracle Applications or effectively transfer the Service Incidents to the appropriate area of support;
- c. Escalate Service Incident resolution as necessary, involving the application software supplier if required;
- d. Communicate Service Incident resolutions through defined processes.
- e. Support month end, quarter end, and year end functions; and,
- f. Conduct remaining knowledge transition and hand-off to the ongoing application managed services team

Deliverable Materials

None

IBM Responsibilities

- a) Confirm initial Severity Level;
- b) Gather required information for Service Incident handling to determine cause of the Service Incident;
- c) Perform problem diagnosis and determine cause of problem/issue;
- d) Adjust Service Incident severity level, if required;
- e) Perform Root Cause Analysis for Problem Ticket;
- f) Perform problem management and escalation in accordance with the call flow process, including escalation to application software supplier (Oracle Corporation) if required;
- g) Determine viable resolution options;
- h) Determine the desired resolution;
- i) Apply the desired resolution and/or corrective action to the development system;
- j) Unit test the resolution in the development system;
- k) Update the relevant system, configuration or process documentation;
- l) Perform regression testing to determined that the issue has been resolved
- m) Implement changes consistent with the agreed-upon ITIL-based change management procedures
- n) Resolve the Service Incident or effectively transfer the Service Incident to the appropriate area of support;

- o) Document and promptly notify the County of any emergency changes. This notification may not be later than one (1) day following such change consistent with the agreed-upon ITIL-based change management procedures.
- p) Escalate the Service Incident to the IBM Project Manager, if appropriate. Update the County ticketing system
- q) Apply the solution into the production environment;
- r) Work with Third Party software maintenance Vendor (Oracle Corporation) in case of COTS software defects;
- s) Transition support services to the Managed Services Team.

County Responsibilities

- a) Manage Service Incidents through the agreed call flow process
- b) Assign severity levels to tickets
- c) SME support for issue resolution
- d) Perform regression testing after IBM has determined that the issue has been resolved
- e) Sign off for migration to Production

Completion Criteria

The Hypercare service will be considered complete at the end of the two month period specified above for each Wave.

4.3.3 Troubleshoot and Resolve (Level 2/Level 3 Support)

Description

The Troubleshoot and Resolve service provides for diagnosis and problem resolution for Service Incidents caused specifically by breaks in existing functional configuration and/or existing custom development. This service does not address Service Incidents directly related to the application of software updates from the software vendor (Oracle Corporation). Oracle patching and updates are provided with the Maintain Application Currency service described in Section 4.3.6.

Scope of Services

IBM will provide up to 11 FTE of support services for Troubleshoot and Resolve per month. The Scope of Services for Troubleshoot and Resolve includes the following:

- a. Accept Service Incidents from the Level 1 Help Desk for Service Incidents caused specifically by breaks in existing functional configuration and/or existing custom development;
- b. Diagnose, resolve and/or coordinate the resolution of the Service Incidents for Oracle Applications or effectively transfer the Service Incidents to the appropriate area of support:
 - (1) County will prioritize the Resolution of Severity 3 and Severity 4 incidents

- g. Escalate Service Incident resolution as necessary, involving the application software supplier if required;
- h. Implementation into the production environment; and
- i. Communicate Service Incident resolutions through defined processes.
- j. Supporting month end, quarter end and year end activities
- k. Update User and System Documentation, including training materials, and Security and Compliance Document as appropriate based on these activities.

In addition, the following terms apply to this Section:

- a. Single-issue Service Incidents are Service Incidents related to a single reported problem. Multiple problems grouped into a single Service Incident are equivalent to multiple Service Incidents and are tracked accordingly;
- b. A Service Incident is the initial reporting of a problem through its resolution, (for example; there may be many calls placed against a Service Incident): and
- c. Service Incidents will be given priority over Minor Enhancements unless reprioritized by the County Service Delivery Manager

Deliverable Materials

None

IBM Responsibilities

- a) Confirm initial Severity Level;
- b) Gather required information for Service Incident handling to determine cause of the Service Incident;
- c) Perform problem diagnosis and determine cause of problem/issue;
- d) Adjust Service Incident severity level, if required and approved by County;
- e) Perform Root Cause Analysis for Problem Ticket;
- f) Perform problem management and escalation in accordance with the call flow process, including escalation to application software supplier (Oracle Corporation) if required;
- g) Determine viable resolution options;
- h) Determine the desired resolution;
- i) Apply the desired resolution and/or corrective action to the development system;
- j) Unit test the resolution in the development system;
- k) Update the relevant system, configuration or process documentation; Implement changes consistent with the agreed-upon ITIL-based change management procedures
- l) Resolve the Service Incident or effectively transfer the Service Incident to the appropriate area of support;

- m) Document and promptly notify the County of any emergency changes. This notification may not be later than one (1) day following such change, consistent with the agreed-upon ITIL-based change management procedures
- n) Escalate the Service Incident to the IBM Managed Service Delivery Manager, if appropriate. Update the L1 ticketing system
- o) Apply the solution into the production environment;
- p) Work with Third Party software maintenance Vendor (Oracle Corporation) in case of COTS software defects;

County Responsibilities

- a) Ensure everyone in the User community reports Service Incidents through the agreed call flow process
- b) Assign severity levels to tickets
- c) SME support for issue resolution
- d) Perform UAT after issue has been resolved
- e) Sign off for migration to Production

Completion Criteria

The Troubleshoot and Resolve service will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.4 Minor Enhancements

Description

The Minor Enhancements service provides for minor new configuration or custom development updates, additions, and deletions within existing modules and/or functionality that are already in production.

Scope of Services

IBM will provide a maximum of 100 hours per Service Request of support to assist the County with Minor Enhancements of their existing production Oracle system over the life of the contract. This is an optional service and will be performed in case of excess capacity after completing Troubleshoot and Resolve (L2/L3 Support) activities, and the excess capacity consists of resources with the right skill mix to perform minor enhancement activity. Troubleshoot and Resolve (L2/L3 Support) will be given priority over Minor Enhancements.

Minor Enhancements are defined as discrete units of work, each less than 100 hours per request activity including, but not limited to, the following types of work;

- a. New functional configuration for in-scope modules;
- b. Modifications to existing reports;

- c. New report development;
- d. New batch processes; and
- e. Other new functional configurations.

Any Minor Enhancement requests that are estimated to be greater than 100 hours, will be considered a project and will be processed in accordance with the SOW Change Control Procedure.

All requests will be approved in writing by the County prior to work beginning.

Work begins with a Service Request from the County Service Delivery Manager for a minor enhancement and/or customizations and includes any planning or estimation efforts. The Service Request ends when the work effort has been installed into the production environment. Any further, related Service Requests for analysis, fixes, or user support would fall under the Troubleshoot and Resolve service.

IBM will update User and System Documentation (62), including training materials and Security and Compliance Document (66) as appropriate based on these activities.

Deliverable Materials

None

IBM Responsibilities

IBM will:

- a. Accept Service Requests from the Service Request process;
- b. Review requirements;
- c. Prepare an estimate for each submitted Service Request;
- d. Determine the impact on system performance and batch schedule, if appropriate;
- e. Obtain County approval to proceed with development
- f. Develop solution design and scope based on requirements;
- g. Develop and change code or configuration based on agreed-to design;
- h. Apply code and/or configuration in the development system;
- i. Perform testing in the development system;
- j. Identify, develop and conduct any required integration testing;
- k. Complete executable program documentation;
- l. Obtain user acceptance;
- m. Install the solution into the production environment

County Responsibilities

The County will:

- a. Approve for submission all work activities passed to IBM;
- b. Develop and deliver requirements via a Service Request;

- c. Provide approval to proceed with development based on estimates and impacts provided by IBM
- d. Provide a County primary contact for each request;
- e. Provide data for unit testing to IBM support personnel;
- f. Identify and develop user test scenarios and test cases;
- g. Support integration testing;
- h. Conduct user acceptance testing;
- i. Provide written authorization to move code objects into production;
- j. Approve closure of Service Request.

Completion Criteria

The Minor Enhancements and Customization service is considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.5 Batch/Interface Management

Description

The Batch/Interface Management service provides for the development, implementation and/or execution of the processes and procedures used to define and maintain the application's batch/interface schedules, monitoring of the batch/interface processes and the notification and escalation procedure for error conditions.

Scope of Services

IBM will provide up to 1 FTE of support services for Batch and Interface Management per month. IBM and the County will jointly prioritize the support requirements to match the available capacity of the support resources.

Batch and Interface Management activities include both regular maintenance and monitoring activities as well as specific tasks based on Service Requests. For a Service Request, work begins with the Service Request from the County Service Delivery Manager for a batch or interface change activity and includes any planning or estimation efforts. The Service Request ends when the work effort has been completed and installed into the production environment if appropriate. Any further, related Service Requests for analysis, fixes, or user support would fall under the Troubleshoot and Resolve service. Both of these areas of support are subject to the overall limit for batch and interface activities.

The Scope of Services for the Batch/Interface Management service is to provide remote assistance to the County in the following areas:

- a. Assessment of current batch schedules and procedures;
- b. Development of batch schedules and run sheet;
- c. Development of application error logging, monitor and review

- d. Documentation of batch monitoring processes and procedures;
- e. Documentation of the notification and Escalation Procedure for error conditions; and,
- f. Update User and System Documentation including training materials, and Security and Compliance Document) as appropriate based on these activities.

This service only applies to the production environment.

In addition, the following terms apply to this Section:

- Monitoring refers to responding to automated alerts or notifications. It does not include active monitoring of the job queues and schedules;
- Scope does not include monitoring of infrastructure;
- Scope does not include building automated alerts;
- IBM is not providing any automation tools; and,
- Any improvements to current processes will be handled through the Service Request process or as a separate SOW.

Deliverable Materials

None

IBM Responsibilities

IBM will:

- a) Create and/or verify a batch run sheet;
- b) Create and/or verify the documentation of batch monitoring procedures;
- c) Create and/or verify the documentation of the notification and escalation procedure for error conditions;
- d) Respond to automated alerts generated by batch job execution issues;
- e) Schedule batch jobs according to run sheet with proper approval; and
- f) Re-start failed jobs according to batch job restart instructions

County Responsibilities

- a) Provide a list of approved persons to request batch jobs; and
- b) Validate the data and results of batch job execution

Completion Criteria

The Batch and Interface Management service will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.6 Technical Support Maintaining Application Currency

Description

Technical support maintaining application currency feature of the AMS Services includes the implementation and/or testing of the processes and procedures used in the update of the Oracle system. IBM will be responsible for the monitoring and identification of vendor (Oracle) supplied patches, fixes and updates that require analysis. IBM will work with the County to determine the need to apply said patches, fixes and updates to the County Application Environment. If the decision is made by the County to proceed with the application of said patches, fixes and updates, IBM will work with the County to coordinate the installation of said patches, fixes and updates. Once applied IBM will test the patches, fixes and updates and coordinate the User Acceptance Test with the County. Once these items have been successfully tested in accordance with the County testing strategy and approved by the County, IBM will perform the migration of the patches, fixes and updates to Production.

Scope of Services

IBM will provide up to 1 FTE of support services per month for maintaining application currency feature. The scope of services for the Technical support maintaining application currency feature includes assistance for the following functions:

- a) Create and maintain patches, fixes and update calendar for Oracle Application.
- b) Monitor and identify vendor supplied patches, fixes and updates that require analysis.
- c) Install the agreed upon patches, fixes and updates to the non-production environment.
- d) Perform unit and system testing of changes performed in the non-production environment.
- e) Participate in the annual testing of disaster recovery plan regarding installing application environment and basic testing of application components.
- f) Test Oracle critical patches (if available), required to maintain application stability.
- g) Reapply customizations due to impact of Oracle patches, fixes and updates.
- h) Coordinate the User Acceptance Test with the County for applied patches, fixes and updates.
- i) Migration of the patches, fixes and updates to Production.
- j) Update User and System Documentation and Security and Compliance Document as appropriate based on these activities.

In addition, the following terms apply to this Section:

- Major Upgrades are out of scope.

Deliverable Materials

None

IBM Responsibilities

- a) Create and maintain patches, fixes and update calendar for Oracle Application.
- b) Create and maintain support procedures with respect to maintaining application currency.
- c) Work with the County on determining what patches, fixes and updates should be implemented based upon the potential benefits of such implementation to the County.
- d) Analyze approved patches, fixes and updates to determine impacts on Application.
- e) Install the agreed upon patches, fixes and updates to the non-production environment.
- f) Perform unit and system testing of changes performed in the non-production environment.
- g) Test Oracle critical patches (if available), required to maintain application stability.
- h) Reapply customizations due to impact of Oracle patches, fixes and updates.
- i) Coordinate the User Acceptance Test with the County for applied patches, fixes and updates.
- j) Migration of the patches, fixes and updates to Production.
- k) Assist with the application re-install as part of any annual disaster recovery testing.

County Responsibilities

- a. Provide approval for the patches, fixes and update calendar for Oracle Application.
- b. Provide final approval of which patches, fixes and updates will be implemented and the timing of implementation based upon other initiatives.
- c. Coordinate and update impacts to related systems.
- d. Conduct user acceptance testing for vendor (Oracle) supplied software patches or manually coded workaround prior to promoting to production.
- e. Authorize the migration of objects.
- f. Maintain a maintenance contract for the Oracle software for the period of this agreement. If the County contracts with a third party for the maintenance of Oracle software in lieu of Oracle maintenance, IBM and the County will review the scope of services and mutually agree to required changes to the SOW through the SOW Change Control Procedure.

Completion Criteria

These service activities will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.7 Application (Logical) DBA Support

Description

The application DBA support service provides for regular monitoring of the Oracle system to assist in providing high level of system availability

Scope of Services

IBM will provide up to 2 FTE of support services for Logical/Application DBA Support per month. IBM and the County will jointly prioritize the support requirements to match the available capacity of the support resources.

The Scope of Services for the Logical/Application DBA Support service is to provide assistance to the County in the following areas:

- a. Regular monitoring of systems to assist in providing high level of system availability.
- b. Perform instance cloning activities
- c. Provide fresh instance creation
- d. Monitor system access and usage.
- e. Facilitate registration of concurrent programs and executables.
- f. Administer workflow related activities
- g. Perform monthly reporting on system performance, utilization, and other operational metrics
- h. Coordinate and manage core table settings related to the configuration of the application.
- i. Migrate objects in between environments.
- j. Prepare Release Checklist for each Release
- k. Update User and System Documentation and Security and Compliance Document as appropriate based on these activities.

In addition, the following terms apply to this Section:

- Major Upgrades are out of scope.

Deliverable Materials

Deliverable	Task/Deliverable Name	County/FPD	IBM
64	Disaster Recovery Plan Test and Exercise Reports (Annual)	Participant	Lead
65	Audit Compliance Findings	Participant	Lead

IBM Responsibilities

- a) Regular monitoring of systems to assist in providing high level of system availability.
- b) Perform instance cloning activities
- c) Provide fresh instance creation
- d) Monitor system access and usage.
- e) Facilitate registration of concurrent programs and executables.
- f) Administer workflow related activities
- g) Perform monthly reporting on system performance, utilization, and other operational metrics
- h) Coordinate and manage core table settings related to the configuration of the application

- i) Migrate objects in the between environments

County Responsibilities

Maintain a maintenance contract for the Oracle software for the period of this agreement. If the County contracts with a third party for the maintenance of Oracle software in lieu of Oracle maintenance, IBM and the County will review the scope of services and mutually agree to required changes to the SOW through the SOW Change Control Procedure.

Completion Criteria

The Logical/Application DBA service will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.3.8 Physical DBA Support

Description

The physical DBA support service provides for regular monitoring of the Oracle databases & systems to assist in providing high level of system availability

Scope of Services

IBM will provide up to 2FTE of support services for Physical DBA Support per month. IBM and the County will jointly prioritize the support requirements to match the available capacity of the support resources.

The Scope of Services for the Physical DBA Support service is to provide assistance to the County in the following areas:

- a) Provide database troubleshooting and problem determination.
- b) Implement backup/recovery plan to allow point in time recovery or version recovery as determined by the County.
- c) Apply fixes, updates and patches to correct database problems, as necessary.
- d) Install Database Software minor release upgrades for an already installed version of each database product
- e) Implement any required database configuration changes based on the County's recommendations
- f) Implement any required pruning, rotation and/or archiving of any application and database log files
- g) Implement initial database performance tuning and provide additional performance tuning based on analysis of performance metrics provided by the County
- h) Monitor Database Software components for availability and/or their presence in memory (up/down status)

- i) Update User and System Documentation and Security and Compliance Document as appropriate based on these activities.

In addition, the following terms apply to this Section:

- Major Upgrades are out of scope.

Deliverable Materials

None

IBM Responsibilities

- a) Provide database troubleshooting and problem determination.
- b) Implement backup/recovery plan to allow point in time recovery or version recovery as determined by the County.
- c) Apply fixes, updates and patches to correct database problems, as necessary.
- d) Install Database Software minor release upgrades for an already installed version of each database product
- e) Implement any required database configuration changes based on the County's recommendations
- f) Implement any required pruning, rotation and/or archiving of any application and database log files
- g) Implement initial database performance tuning and provide additional performance tuning based on analysis of performance metrics provided by the County
- h) Monitor Database Software components for availability and/or their presence in memory (up/down status)

County Responsibilities

- a) Maintain a maintenance contract for the Oracle software for the period of this agreement. If the County contracts with a third party for the maintenance of Oracle software in lieu of Oracle maintenance, IBM and the County will review the scope of services and mutually agree to required changes to the SOW through the SOW Change Control Procedure.
- b) Provide final approval of which patches, fixes and updates will be implemented and the timing of implementation based upon other initiatives.

Completion Criteria

The Physical DBA service will be considered complete when the completion criteria outlined in Section 4.5 AMS Completion Criteria has been achieved.

4.4 AMS Team

IBM will provide FTE to provide application managed services in accordance with Table 4.4-1 below. FTE capacity is assigned on a monthly basis for use solely within the month. Utilization for 1 FTE is 2080

hours per year. The allocated capacity for the tasks listed below listed are provided in Section 4.3 of this document. Should the capacity deviate (+/-5%) on a sustained basis over a rolling three-month period, the County and IBM will meet to review the causes of these deviations, and, if required, mutually agree on adjustments to staffing and/or discuss alternatives to address the volumes. Monthly staffing and workload review meeting will be conducted by the IBM and County's Managed Services Delivery Manager. In this meeting the staffing and workload for the past 3 month will be reviewed and projection will be made for next 3 months.

Table 4.4-1: AMS Team FTE

Skill Set / Roles	FTE	Primary Tasks
Oracle EBS Financials	2	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency
Oracle EBS HR, Payroll & Benefits	2 FTE + 1 FTE in in 2018 for 4 months only for Open Enrollment Support	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency Batch & Interface Management
Oracle EBS Purchasing and SCM	2	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency Batch & Interface Management
Oracle Technical (across all modules)	2	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency Batch & Interface Management
		Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency
OBIEE	1	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency
Hyperion	2	Troubleshoot & Resolve Minor Enhancement Technical Support Maintaining Application Currency
Oracle Application (Logical) DBA	2	Application (Logical) DBA Support Technical Support Maintaining Application Currency
Oracle Physical DBA	2	Physical DBA Support Technical Support Maintaining Application Currency

4.5 AMS Completion Criteria

IBM will perform the AMS tasks described in Section 4.3 and report on a monthly basis with the Managed Services Status Report. IBM will have fulfilled its Application Managed Services obligations under this SOW for a given month when any one of the following first occurs:

- a. The calendar month ends; or
- b. The contract period of performance has ended; or
- c. The County or IBM terminates the delivery of Services in accordance with the provisions of the Terms and Conditions.

5 Cloud Managed Services (CMS)

5.1 Service Description

The CMS Service Description and the following sections or attachments to this SOW include the terms and conditions specific to delivery of CMS services in support of the broader scope of this SOW: Attachment 11 – Technical Infrastructure/Environment in Scope.

Definitions for capitalized terms used herein without a corresponding term in the Definitions section of this Service Description shall have the same meaning as set forth in Schedule A of the Agreement.

5.2 Definitions

APIs – application programming interfaces IBM provides as Service Component which provide programming code to interface with and utilize the CMS Services, including requesting and ordering CMS Services options and Service Components, which bypass Cloud Web Portal user interfaces.

IBM Image – a software image file containing the functionality of selected IBM software program(s) that IBM makes available as part of the CMS Services.

Image – a software image file containing the functionality of the software program(s) that IBM makes available as part of the CMS Services. An Image contains an Operating System Image by itself or in conjunction with an IBM Image or Third Party Image.

OS – Operating System software.

Recovery Point Objective or RPO – the period in which data might be lost from an IT service due to a disaster, measured from the time of disaster occurrence.

Recovery Time Objective or RTO – the duration of time within which a business process must be restored after a disaster, measured from the time of disaster declaration.

SC Image – an Image IBM makes available as a Services Component.

Service Catalog – a view of Service Components and Service options IBM makes available for the County selection and use within the Service.

Third Party Image – a software image file containing the functionality of selected third party software program(s) that IBM makes available as part of the CMS Services.

5.3 Scope of CMS Services

Cloud Managed Services ("CMS") (or the "CMS Services") are designed to provide customers the ability to utilize virtual computing resources to support the County's computing needs. CMS is a shared physical run environment that is administered by a common cloud management platform leveraged across multiple clients. The CMS Services provide flexibility at the platform level, service management capabilities and security features.

IBM utilizes multiple Cloud Data Center locations to deliver the CMS Services. Our data centers in Raleigh, North Carolina and Boulder, Colorado will be used to deliver the County's solution.

The County acknowledges that i) the central infrastructure supporting the Cloud Web Portal and County Account contact information and User ID information provided by the County (County Account Information) is stored and delivered from the central business support system data center location in IBM's European Cloud Data Center or other locations IBM deems necessary for the delivery of the CMS Services, and ii) the County VMs, as defined in this CMS Services Description, are stored and delivered from the operational support system Cloud Data Center location(s) that the County selects when ordering CMS Services in the Cloud Web Portal.

IBM will provide a managed environment through the Operating System (OS). IBM is also providing the County specific management services above the OS that provide database and middleware management as well as other services as described in other sections in this SOW. CMS Services outside the scope of this SOW or any change order to this SOW will be the sole responsibility of the County.

5.4 Account Set Up

Set up activities to establish and maintain the County's Account and enable the County's access to the CMS Services, including set up or modification of any additional CMS Services options ordered by the County are described below.

The County will:

- a. Provide valid funding authorization, such as a purchase order, if the County requires any such authorizations for IBM to invoice charges and to keep such authorization current and provide updates on a timely basis so as not to interrupt CMS Services;
- b. Provide access to a networking point of contact and network information necessary to support the setup of a VPN and/or NetBond network connection.

5.5 CMS Service Enablement

When the County Account is set up, IBM will activate and make available standard CMS Services options for use by the County.

IBM is responsible for proper selection and use of any CMS Services options in support of the scope presented in this SOW. For any improper use of a CMS Services option by the County (such as use of Services Component software without proper Entitlements) IBM may require the County to obtain proper Entitlements.

5.6 Infrastructure CMS Services

This section describes the CMS Infrastructure Services.

5.6.1 Virtual Machine Compute Resources

The custom configurations in place for the County are specified in Attachment 11. The custom configurations are implemented in accordance with the provisions of this section.

IBM may, at its sole discretion, provide a larger amount of storage for root disk than specified by the tables above. In this case, there is no additional charge to the County and the provision of such additional storage on one VM does not entitle County to additional storage on the root disk for any other VMs provisioned in the future.

Disk Mirroring:

- a. While physical storage units in the CMS environment are highly redundant (blocks are “striped” across disks) and built with RAID-X, if the physical storage unit is down for scheduled or unscheduled maintenance, the Guest OS VM’s with storage on that physical CMS storage device will be affected. This information in this section refers to mirroring across multiple storage devices in order to minimize disruption to services.
- b. Root Disk
Managed VMs: Platinum VMs have disk mirroring on the root disk by default. The root disk on Bronze, Silver and Gold instances is not mirrored across devices.
- c. Data Disks
Disk mirroring can be selected for each data disk at the time of requesting additional disks. The system will allow customers to modify this attribute later if required.

The County may request modifications to a VM by requesting changes to vCPU or Virtual Memory through the IBM Application Services team.

A Virtual Machine configuration may not be reduced below/made smaller than its original configuration.

IBM reserves the right to modify Virtual Machine configuration options and maximums available to the County provided that County’s functionality is not adversely affected by such modifications.

For pSeries VMs, IBM will provide access to a monthly report of the number of cores on the County’s VMs through the IBM Services Connection.

Completion of a change request to vCPU or Virtual Memory will immediately reboot a VM.

Estimated time from start of provisioning request until turn over to the County of a Bronze level VM is 24 hours or less. Provisioning of additional features such as additional storage, clustering, etc. may extend these objectives.

5.6.2 Supported Operating Systems

IBM CMS supports a many versions of AIX, Red Hat Enterprise Linux and Microsoft Windows. For the scope of this SOW, IBM will support the following Operating Systems for Managed VMs:

- a. AIX 6.1 Standard Edition
- b. AIX .1 Standard Edition

- c. Microsoft Windows Server 2008 R2 Enterprise Edition 64 bit

5.6.3 Additional Storage Attribute Options

CMS has many storage options and attributes available when adding disk to the VM. Some options may not be modified after provisioning. The storage and attributes selected for the scope of this SOW may be found in Attachment 11.

IBM may, at its sole discretion, provision storage at a higher performance tier or disk type than the County has selected, at no additional charge. IBM may also move the storage to the original selected tier or disk type at a future date.

5.6.4 Additional Virtual Machine Capabilities

The County may request the following for a Virtual Machine via the IBM Application Services team. Fulfillment of the request may be subject to additional charges and availability of capacity:

- a. VM location of the Cloud Data Center for deployment provided to the County. The two Cloud Data Centers available for this SOW are located in Raleigh, NC and Boulder, CO.
- b. Upon receipt of the County's request to "Remove Server Now", the VM will be immediately destroyed and the allocated disk will be released to the general pool for reuse.

5.7 Services Component Software Options

Each VM will be provisioned with a Services Component (SC) Operating System Image of AIX or Microsoft Windows based on the use of the VM. SC Images may contain software licensed by IBM or licensed by third party software providers. Specific terms apply depending on the software licensor.

5.7.1 SC Operating Systems

IBM will provide all SC Operating System software for virtual machines used by the County. The actual run time libraries / code will be an IBM provided OS Image.

The County legacy Operating System Images may not be used in the Service.

IBM will maintain currency of supported Operating System software listed in Section 5.6.2 as follows:

For the purposes of this section, currency means that IBM will support two (2) versions of an Operating System software, whether the two most recent levels are considered minor or major releases. For purposes of illustration, IBM will support versions 1.4.1 and version 1.4.2, or version 1.4.2 and version 2.0.

- a. Minor versions (1.4.1 to 1.4.2) will be deployed and supported throughout the VMs in the IBM Cloud Data Centers within three (3) months of general availability as announced by the software vendor;
- b. Major versions (1.4.2 to 2.0) will be deployed and supported throughout the VMs in the IBM Cloud Data Centers within six (6) months of general availability as announced by the software vendor;
- c. For any version (minor or major) of the Operating System software that is no longer to be supported by the software vendor, for any reason,

1. IBM will withdraw any such Operating System software from sales no later than six (6) months before the date the vendor has announced that support will no longer be available, as long as the software vendor provides at least six (6) months' notice; otherwise, the Operating System software will be withdrawn from sales immediately;
 2. IBM will provide support to such Operating System software installed on VMs in the IBM Cloud Data Centers until the day before the date the vendor discontinues its support; and
- d. IBM may provide update/migration custom services for an additional charge to the County if approved through the SOW Change Control Procedure.

For Microsoft SC Operating System software, the applicable Third Party Agreement / additional license terms are:

Microsoft Operating System software listed in Section 5.6.2 is licensed from Microsoft and IBM is required by Microsoft to include the following terms in IBM's Customer Agreements:

- the County shall not remove, modify, or obscure any copyright, trademark or other proprietary rights notices that are contained in or on the Products;
- the County shall not reverse engineer, decompile or disassemble the Products, except to the extent that such activity is expressly permitted by applicable law;
- Microsoft disclaims, to the extent permitted by applicable law, all warranties by Microsoft and any liability by Microsoft or its suppliers for any damages or remedies, whether direct, indirect, or consequential, arising from the Software Services. For the purposes of this section Software Services means the services IBM provides to the County that make available, display, run, access or otherwise interact, directly or indirectly, with the Products;
- IBM may disclose the County information such as the total number of licenses and country of usage, the County's name and address;
- Technical support for the Software Services will be provided by IBM or a third party on IBM's behalf (and not Microsoft or its suppliers); and
- There is a "No High Risk Use" requirement that the User may not use the Microsoft software ("Product") in any application or situation where the Product(s) failure could lead to death or serious bodily injury of any person, or to severe physical or environmental damage ("High Risk Use"). Examples of High Risk Use include, but are not limited to: aircraft or other modes of human mass transportation, nuclear or chemical facilities, life support systems, implantable medical equipment, motor vehicles, or weaponry systems. High Risk Use does not include utilization of Products for administrative purposes, to store configuration data, engineering and/or configuration tools, or other non-control applications, the failure of which would not result in death, personal injury, or severe physical or environmental damage. These non-controlling applications may communicate with the applications that perform the control, but must not be directly or indirectly responsible for the control function.

5.7.2 County Provided Software

The County is permitted to bring and have the IBM Application Services team upload its own properly licensed non-operating system software (sometimes referred to as "bring your own software and license" or "BYOSL") for use within the CMS Services by installing it directly on a VM. This included the Oracle software that will be implemented as part of this SOW's scope of services. Any such County provided software the County brings and uploads in connection with the CMS Services is considered Content as defined in the Agreement. the County is responsible to ensure the County has the necessary licenses, Entitlements, and approvals for adding, installing, uploading, transferring, and using such software with the CMS Services.

In the event that the County elects not to maintain Software Support or compatibility with the Operating System software for any reason, including Software End of Life, the County acknowledges that IBM's CMS Services may be impacted. In such event, any downtime or other Service failures will be excluded from IBM's Service Levels and any impact to the CMS Services shall be the sole responsibility of the County.

The following provisions apply to any BYOSL non-operating system software licensed to the County by Microsoft Corporation or a Microsoft authorized reseller.

For the purposes of this provision, "License Mobility through Software Assurance" means the rights described in the section titled "License Mobility through Software Assurance" in the Microsoft Product Use Rights. The Microsoft Product Use Rights are located at:

<http://www.microsoft.com/licensing/software-assurance/default.aspx> or a successor site.

In order to exercise License Mobility through Software Assurance rights, the County must, **prior to uploading any Microsoft software as BYOSL to a VM in the IBM cloud environment**, execute the "Mobility Verification Form" located at: <http://www.microsoft.com/licensing/software-assurance/license-mobility.aspx> or at a successor site and submit the completed Mobility Verification Form to Microsoft for verification.

Microsoft will provide IBM and the County with confirmation of the County verification status to exercise the License Mobility through Software Assurance Product Use Rights, and the specific products and license counts the County will be authorized to deploy in the IBM cloud environment. This information may be used to support compliance reviews and discussions.

If IBM or Microsoft believe in good faith that the County is not complying with the terms of License Mobility through Software Assurance, as described in the Product Use Rights, the County must cooperate in good faith with Microsoft or IBM to investigate and remedy any potential non-compliance. If requested by IBM and/or Microsoft, the County agrees to provide any additional and reasonable information to support the investigation and remediation, if any, of the non-compliance.

If Microsoft determines that the County is non-compliant with the License Mobility through Software Assurance program requirements, Microsoft will provide the County with written notice of the non-compliance which will include an itemization of the non-compliant issues. the County will work with Microsoft to resolve the County's status and determine if termination can be avoided. If the parties are unable to achieve a mutually agreeable resolution, Microsoft will provide the County and IBM with written notice to terminate the benefits of License Mobility through Software Assurance for the County. Upon receipt of such notice, the County will promptly remove the instances provided in the notice and utilized by the County and provide written notice to Microsoft with a copy to IBM.

The County must ensure that any License Mobility through Software Assurance Product deployed in the IBM cloud environment uses the County's own Product media and keys.

The County's licenses under the License Mobility through Software Assurance program must remain on a VM within the same Cloud Data Center for no less than ninety (90) days. The County may move instances under a particular license from one IBM Cloud Data Center to another IBM Cloud Data Center; however, the County may not (a) move the instances run under that license back to the County computing environment, (b) outside of IBM's Cloud Data Center, or (c) to another third party cloud data center within ninety (90) days of the last assignment.

5.8 Backup and Restore

CMS provides a backup solution designed to offer the County backup and restore services for file system and the County designated databases. This is not a substitute for a disaster recovery solution. Backup can be performed for databases up to 30 TB in size, provided that the maximum table space in the database is under 8TB.

5.7.3 IBM Responsibilities

IBM will:

- a. Perform and store data file backups (process of duplicating the customers "to-be-backed-up" "Target Data") with the intent of storing the data on a tape, in accordance with the schedule selected by the County from the options available on the portal;
- b. For the County selected data bases, perform and store backups in accordance with the schedule selected by the County from the options available on the portal;
- c. Encrypt all tapes and manage encryption keys. Tapes and keys are not available to the County;
- d. Monitor and manage backup activity;
- e. Move a copy of each tape containing encrypted data off-site to an IBM selected vault location once daily;
- f. Restore the requested data with the objective to initiate a minimum of 95 percent of the total number of restore requests per calendar month within a two hour timeframe for data that can be restored from a local copy;
- g. Perform administration, tuning, optimization, planning, maintenance, and operations management for backup and restore;
- h. Provide and install additional infrastructure capacity for backup and restore, as required and as determined by IBM; and
- i. Any scheduling conflicts between backup and patch management will result in the backup being performed on the next scheduled backup window

5.8 Network CMS Services

IBM will provide a redundant local area network (LAN) infrastructure and static IP addresses from customer IP pool or "private" non-internet routable addresses from IBM IP pool. IBM will provide up to five (5) internet routable IP addresses in support of network address translation if required. Requests for more than 5 IPs are granted in IBM's sole determination. Additional requests will be individually assessed.

Within the County CMS environment IBM can deploy VMs in multiple security zones, as defined by network isolation layers in the County's local network topology. A design point of three (3) VLANs is standard in the Service. Requests for more than three (3) VLANs are granted in IBM's sole determination. Additional requests will be individually assessed.

Internet bandwidth is provided in support of customer environment and may be metered and charged on a per GB rate based upon County usage. An Internet bandwidth allowance has been included in the Charges and the allowance is documented in Attachment 11.

Should the County utilize the Internet for access to CMS, IBM strongly recommends that the County obtain Internet-based TCP/IP vulnerability scanning services from IBM or from another vendor. This is not provided as part of the Cloud Managed Services. The County's IBM Cloud Services Focal point can assist the County with obtaining information on IBM vulnerability scanning services should it be required in the future. Vulnerability scanning provides the County with the ability to identify exposed vulnerable code and configurations. Once identified vulnerabilities can be resolved by any numbers of means; applying patches, modifying an application configuration, or implementing mitigating controls.

5.8.1 Virtual Private Network Environment Services

One (1) virtual private network environment ("VPNE") per is included for each Cloud Data Center. Each VPNE is required to have at least one but no more than forty VPN tunnels ("VPN Tunnel"). A VPN Tunnel is an encrypted communication path between a unique remote customer computing VPN gateway endpoint and a single IBM VPN gateway endpoint in a Cloud Data Center. VPN Services include support to connect to the IBM VPNE over the Internet using Internet protocol security extensions ("IPsec") VPN Tunnels only.

The County will specify one unique IP subnet range representing the the County VPN endpoint connection for each VPN Tunnel requested. Network configuration support for the County's endpoint connection of a VPN Tunnel remains a County's responsibility.

After an initial order and set up of a VPNE within a Cloud Data Center, the County can request changes to the VPNE by submitting a Service Request. Other examples requiring change scheduling include change the number or configuration of any VPN Tunnels or the number or configurations of any associated Private VLANs.

Deletion of the last VPN Tunnel in a Cloud Data Center will remove the VPNE for that Cloud Data Center.

The County understands that prior to ordering deletion of a VPNE all County VMs provisioned in those environments must be deleted. The County is responsible for requesting that any such VM be saved so they may be later provisioned as a new VM.

5.8.1.1 VPN Set-up Responsibilities

IBM Responsibilities

IBM will, for initial setup and as required for any additional VPN tunnels and VPN related changes requested after initial set up:

- a. provide a VPN set-up information form for each VPNE, which will include VPN Tunnel configuration or change request within each Cloud Data Center;

- b. upon receipt of the completed set-up form, set up the VPNE including the VPN Tunnel in the selected Cloud Data Center using information provided by the County;
- c. provide County network representative with information regarding the VPN configuration needed to connect to an IBM VPN gateway endpoint; and
- d. schedule and conduct an activation call with the County's network representative at a mutually agreed to time to jointly activate VPN Tunnel(s) for the VPNE.

County Responsibilities

The County will, for initial setup and as required for any additional VPN tunnels and VPN related changes requested after initial set up:

- a. designate a technically qualified network representative that can represent the County and provide required configuration and set up information to IBM;
- b. provide configuration information by completing and returning to IBM the VPN set-up information form for each Cloud Data Center where a VPNE is to be established;
- c. configure and maintaining access from the County's computing environment to each IBM's VPN Tunnel gateway;
- d. perform initial preliminary set up activities related to the County's managed VPN end points prior to the joint activation call;
- e. have County network representative participate in the call to jointly activate each VPN Tunnel connection;
- f. perform troubleshooting and correction of any issues with the configuration of the County's VPN end point, any routing issues within the County's network or any routing issues between County's network and the IBM VPN gateway;
- g. initiate and maintain proper security controls for communications related VPN Services including but not limited to any desired protections at the entry into the County's data center through the County provided VPN gateway; and
- h. provide Internet bandwidth at their site in support of the VPN.

If the County makes any change from what was specified on the Additional Services Order form, such change will be subject to the SOW Change Control Procedure.

5.8.2 NetBond Services

Cloud Network Enablement Service ("NetBond") provides virtual local area network ("VLAN") based connectivity between IBM's standard VPN service and the County VMs located in the Cloud Data Center using an IBM provided networking infrastructure.

NetBond supports a single, logical transmission path between the County's network site supported by an existing IBM provided VPN and the Cloud Data Center, and connects the County's VPN to one or more VLANs connecting to the County's VMs.

NetBond supports provisioning of a logically separate private data transmission path to support the County unique VLAN(s) connecting from the VPN to the designated VMs.

IBM has included two (2) 10 Mbps NetBond network connections, one to each Cloud Data Center being utilized by the County, in the scope of this SOW. No custom or special networking or gateways are required in the Cloud Data Center to support the connection.

Table 5.8.2-1: NetBond Services

Raleigh Delivery		Boulder Delivery	
<i>United States Raleigh VCN</i>		<i>United States Boulder VCN</i>	
Minimum Bandwidth Options	Selected Option for County	Minimum Bandwidth Options	Selected Option for County
10 Mbps	1	10 Mbps	1
40 Mbps	0	40 Mbps	0
100 Mbps	0	100 Mbps	0
155 Mbps	0	155 Mbps	0
300 Mbps	0	300 Mbps	0
600 Mbps	0	600 Mbps	0
800 Mbps	0	800 Mbps	0
1 Gbps	0	1 Gbps	0
2 Gbps	0	2 Gbps	0

5.8.2.1 Prerequisites

The County must have prequalified their network infrastructure with IBM prior to enablement of the NetBond service. The County understands that termination of the NetBond will prevent access to their VMs.

5.8.2.2 NetBond Additional Definitions

“**Active VNC**” means a VNC which is available for use by the County, meaning that the VNC supports transmission of data between the County VPN and the Data Plane Meet Me Interface on the VLANs specified by the County for the set-up information collected by IBM. A new VNC shall be considered an Active VNC as of the Date the County submits this NetBond attachment applicable to such VNC.

“**Actual Monthly VNC Charges**” shall have the meaning ascribed to it in Subsection 5.1.2 below.

“**Minimum Bandwidth Commitment**” or “**MBC**” means the minimum bandwidth commitment selected by the County for a VNC at the time the County submits this document.

“**Overage Charge**” shall mean the variable charge for a VNC applicable in any month in which an Overage occurs. The Overage Charge is the product of the Overage multiplied by the Overage Rate, as set forth in the applicable table in the NetBond Charges Attachment, based on the selected MBC of 10 Mbps.

“**Overage**” shall mean, for a given VNC and a given month, the amount (expressed in kilobits per second) by which the Sustained Bandwidth of the VNC exceeds the Minimum Bandwidth Commitment of the VNC. If the Sustained Bandwidth does not exceed the Minimum Bandwidth Commitment, there is no Overage.

“Per VNC Charge” shall mean the monthly charge for given Virtual Network Connection, which is comprised of a Monthly Recurring Charge and an Overage Charge (if applicable).

“Sustained Bandwidth” means a measurement of bandwidth consumption for a VNC, calculated as described in Subsection 4.1.1 below.

“Virtual Network Connection” or **“VNC”** means a logical connection that supports establishment of one or more VLANs between the County VPN and the County’s Virtual Machines, using the criteria specified by the County.

5.8.2.3 Resource Categories and Measurement Methodology

The actual resources being used in VNCs will be measured monthly. Each VNC will be assigned a 10 Mbps Minimum Bandwidth Commitment.

Sustained Bandwidth

Sustained Bandwidth is measured in megabits per second (Mbps) for a VNC during a billing month as follows:

- a. The aggregate total of all bits transmitted across the VNC (for all VLANs on a VNC) is measured, separately for each direction (inbound to and outbound from the Data Plane Meet Me Interface), in bits for each five minute period during the month.
- b. Each measured aggregate total of all bits transmitted across the VNC during a five minute period is divided by 300 seconds, to obtain a bandwidth measurement in bits per second.
- c. The total bandwidth measurements for each 5 minute measurement period in the month are ranked in order and compared to determine the 95th percentile measurement. Separate calculations are performed for inbound and outbound measurements, to determine the 95th percentile measurement for each category.
- d. The larger 95th percentile measurement (inbound as compared to outbound) is selected as the measurement for determination of Sustained Bandwidth.
- e. The selected measurement is divided by 1,000,000 to obtain the Sustained Bandwidth, expressed in Mbps.
- f. Example – Calculation of Sustained Bandwidth: There are 8640 five-minute measurement periods during a 30-day month. The table below represents measurements from an example 30-day month. For the purpose of explanation, the calculation is simplified as follows:
 - Assume that all 8640 measurement periods are reflected in a list in the format shown in the Example Table.
 - Assume that measurement period 4 represents the 95th percentile of all inbound measurements (i.e., is ranked as number 8209 when all the inbound measurements are ranked from smallest to largest). 280,000,000 bps is divided by 1,000,000 to give 280 Mbps.
 - Assume that measurement period 5 represents the 95th percentile of all outbound measurements. 90,000,000 bps is divided by 1,000,000 to give 90 Mbps.
 - The inbound measurement for measurement period 4 is larger than the outbound measurement for measurement period 5, so the inbound

measurement for measurement period 4 is used for determination of Sustained Bandwidth. The Sustained Bandwidth for the measured month would be 280 Mbps.

Measurement Period	Total VNC bandwidth (in bits) (Inbound)	VNC bandwidth (bps) (Inbound)	Total VNC bandwidth (in bits) (Outbound)	VNC bandwidth (bps) (Outbound)
1	36,000,000,000	120,000,000	15,000,000,000	50,000,000
2	27,000,000,000	90,000,000	17,000,000,000	56,666,000
3	15,000,000,000	50,000,000	13,000,000,000	43,333,000
4	84,000,000,000	280,000,000	12,000,000,000	40,000,000
5	24,000,000,000	80,000,000	27,000,000,000	90,000,000
6	32,000,000,000	106,666,000	10,000,000,000	33,333,000
7 through 8640	Additional data is omitted for simplification purposes			

5.8.2.4 Monthly VNC Charges

IBM has configured the NetBond connection at 10 Mbps and anticipates that this bandwidth will support the County requirements. If, over the life of the contract, the bandwidth requirements increase beyond 10 Mbps due to unanticipated increased usage or workload, changes will be managed with the SOW Change Control Procedure.

5.9 ITIL (Information Technology Infrastructure Library) Based Managed Services

IBM will perform/provide the following ITIL based managed Services for CMS VMs:

- a. **Asset management:** IBM will track the status, location and usage "ownership" of CMS Services Component hardware and software, including tracking and monitoring of IBM provided OS licenses. IBM will also track the County owned/licensed software assets only if the CMS Services recognize the signature file of such the County software assets. The County may request a list of assets utilization from their IBM Cloud Services Focal Point;
- b. **Event management:** IBM will provide management of events, excluding application/database alerting, throughout their life cycle including auto ticketing with monitoring integrated into event management and event management integrated into Incident, problem and change system. Events may be changes of state that have significance for the management of a customer VM or for an element of the CMS Services;
- c. **Incident Management:** IBM will provide management of the lifecycle of all unplanned interruptions and reductions of CMS Services quality (incidents). The primary objective of Incident Management is to return the County's CMS Services to full operation;
- d. **Problem Management:** IBM will provide support for the detection, reporting, and correction of problems (causes of one or more incidents) that impact CMS and customer resources. Once

problems have been rectified, root cause analysis is performed and appropriate adjustments are recommended and implemented; and

- e. Service Request Management: IBM will provide a Service Catalog and allow for automated service requests and change management via the Cloud Web Portal.

5.10 Standard Operational Reports

IBM will provide operational status and the following reports via a portal. IBM will provide summary and detailed reports in the following areas:

- Incident, Problem and Change
- CMS Services Activation and Deletion
- Virtual Machine Configuration
- Usage and Charges

5.11 CMS Support

5.11.1 CMS Account Management and Service Requests

The IBM Application Managed Services team supporting your Oracle applications can initiate a Service Request in two ways, a) via the Cloud Web Portal (some Cloud Web Portal Service Requests are predefined and pre-priced, others must be requested via a free form Service Request submission), or b) via email request for instance by submitting to IBM the Additional Services Order Form to the email address provided by IBM for such Service Request. Upon receipt of a request, the IBM Cloud Services Focal Point will take the appropriate actions, including contacting the County by email or phone for further information. Upon IBM's completion of the County Service Request, an email notification will be sent to the Requestor, or, if the Service Request was initiated through the Cloud Web Portal, the only notice for the County may be that the Service Request is flagged as complete in the Cloud Web Portal.

Any changes to increase or decrease services should be processed as a Change Order under the SOW Change Control Procedures.

The IBM CMS Cloud Services Focal Point general support responsibilities are to:

- Serve as the County interface for all escalations and communications
- Manage incidents
- Participate in change approval process
- Manage SLA attainment and issues
- Manage audits and compliance activities
- Participate in major incident management
- Coordinate and manage complex changes
- Manage minor steady state projects
- Manage Root Cause Analysis process for VMs up through the OS.

5.11.2 CMS Request for Support

Any request for CMS support should be initiated by the County through the Help Desk described in Section 4.2. Should the IBM Help Desk team determine that there is a need for CMS support, the Cloud Web Portal will provide the ability to submit a request for support of the CMS Services. Updates to the incident will be provided via the Cloud Web Portal or via email to submitter of the incident.

5.12 Maintenance

IBM will maintain and install updates and fixes as IBM deems appropriate to the Cloud Data Center base infrastructure and any of the standard Images.

CMS Services may not be available during these times. IBM reserves the right to interrupt CMS Services to perform emergency maintenance as needed. IBM may change scheduled maintenance hours and will post to the Cloud Web Portal any such changes, as well as any emergency maintenance information.

5.12.1 Standard Maintenance Windows

The CMS Services will utilize predefined and standard maintenance windows, some of which may cause the CMS Services to be unavailable to the County. IBM will not seek County approval to execute maintenance, but will attempt to minimize impact to the County's CMS Services.

IBM will make commercially reasonable attempts to communicate via a broadcast message to customer administrators the changes planned for each maintenance window, via the Cloud Web Portal, email, or other methods.

5.12.2 Daily Change Window

The CMS Services supports a daily change window that is designed to support change requests initiated in support of the County via the Cloud Web Portal. Initiated change requests in support of the County may be made twenty four (24) hours per day, seven (7) days per week, exclusive of scheduled maintenance windows. Submission of a change request may require a restart, or reboot of Services Components, such as VMs, following performance of the change.

5.12.3 Patch Category

The patching process is automated and bound by the type of server and criticality of the patch. When a VM is requested for the County, one of the following server designations must be selected:

- a. Development – Patches apply in Development maintenance cycle the first week of each month.
- b. Test – Patches apply in Test maintenance cycle, which is the second week of each month.
- c. Production 1 – Patches apply in Production maintenance cycle, which is the third week of each month.
- d. Production 2 – Patches apply in Production maintenance cycle, which is the fourth week of each month.

- e. Do not patch – Patches will be applied at the time of VM provisioning only. This selection is subject to an additional charge as outlined in the Charges Schedule.
- f. Manual patch – Patches will be applied during VM provisioning to bring the instantiated image up to date. Subsequent patches will be applied at the request of the IBM team supporting the County. This selection is subject to an additional charge, as outlined in the Charges Schedule.

IBM, in its sole determination, may modify the patching schedule on an as needed basis.

5.12.4 Monthly Change Window

The monthly maintenance window is the third Saturday of each month, 12 pm local time of the Cloud Data Center to 8 pm local time of the Cloud Data Center. Monthly change windows are not expected to impact the running VMs. The Cloud Web Portal may be unavailable during this period.

5.12.5 Other Change Windows

IBM's intent is to contain all maintenance that may impact the County services, in particular the availability of VMs, storage, network and other services, to the monthly change windows set forth above. Other change windows may be used on an exception basis for management of the environment. IBM will make commercially reasonable efforts to minimize the County impact during such change windows and will notify the County in advance.

5.13 County Managed Active Directory

For Active Directory Services (ADS) the County must maintain an Active Directory environment (either hosted purely in CMS, or extended into CMS from the County site). CMS guests are provisioned into existing County Active Directory

In addition:

- Active Directory Schema can be extended to support Active Directory based applications.
- The Kerberos authentication protocol can be used between the County and County VMs environments.
- Guests can be migrated from the County site to the County's CMS VMs without a change in Active Directory domain membership, reducing impact to existing applications.
- Certificate based logon/custom authentication providers can be enabled by the County.
- VMs can be provisioned into ten different organizational units per domain.
- The County specific Domain Security Policy (GPO) can be enabled (stronger than the default). One GPO per organizational unit is supported and must be pre-approved by IBM.

5.13.1 IBM Responsibilities for County Managed Active Directory

IBM will:

- a. Configure the CMS management Active Directory "trust" with the County's Active Directory domain located at the County's site;
- b. Provide for single-sign-on to access guest VMs using the County managed County IDs;
- c. Install and configure two (2) VM (Medium, 64 bit, Windows OS, Silver) to act as a Domain Controllers for the CMS domain within the County's CMS VM space;

- d. Install and configure two (2) Unmanaged VM (Medium, 64 bit, Windows OS, Silver) to act as County managed Domain Controllers for the County domain within County's CMS VM space;
- e. Provide guidance to the County with configuring the County site Active Directory; and
- f. Configure internal and external firewalls.

5.13.2 County Responsibilities for County Managed Active Directory

The County will:

- a. Configure the County site Active Directory/Trust as required;
- b. Configure the County DNS forwarding as required;
- c. Assist in configuring County Active Directory Domain Controllers on 2 Unmanaged VMs;
- d. Manage SSL certificates where required; and
- e. Manage/Monitor/Maintain the unmanaged VM's that are extensions to the County AD forest into the CMS cloud environment.

The County will not:

- a. Allow changes/failures in their Active Directory environment to apply Group Policy to CMS guests, unless otherwise directed by CMS (policy inheritance must be disabled).
- b. Allow changes/failures in their Active Directory environment inhibit IBM's ability to provision guests into the IBM Cloud organizational unit and its child organizational units.
- c. Allow changes/failures in their Active Directory environment inhibit IBM's ability to manage guests.
- d. Attempt to gain privileged/administrative access to CMS guests without following IBM privileged access processes.
- e. Attempt to move computer account objects out of the organizational unit and its child organizational units.
- f. Relocate the organizational unit without written notification to IBM seven (7) days in advance of the change.

5.13.3 HIPAA Support Service Pack

IBM will provide HIPAA Support Service Pack (HIPAA-SSP) services via the Cloud Web Portal for the infrastructure environments supporting applications with HIPAA controlled data. HIPAA-SSP is available only on newly provisioned Managed VMs, and once applied cannot be removed.

HIPAA-SSP is available for VMs with Operating Systems that have been migrated into CMS (retrofit for artifacts from migration activity is not included), and applies only up through and including the VM operating system.

HIPAA-SSP is priced per VM with a monthly recurring charge, by the CMS size designation of the VM, independent of architecture or Operating System. In addition there is a one-time charge for each Vormetric key management appliance the County specifies (1 is absolute minimum). To stop the HIPAA-SSP charges, the VM must be deleted.

Charges continue for VMs with the HIPAA-SSP installed while those VMs are suspended, or while the VMs are active having failed over as part of a disaster recovery event.

The County acknowledges that the HIPAA-SSP:

- a. does not make a County "HIPAA compliant"
- b. does not make the CMS services or IBM "HIPAA certified"
- c. does not make the County PHI applications "HIPAA compliant"
- d. does not include HIPAA program compliance consulting
- e. does not include support of health care clearinghouse functions

15.13.3.1 IBM Responsibilities

IBM will:

- a. Install the agents and tooling, and address alerts or service indications the Service Pack tooling may generate;
- b. For 'At rest' data encryption:
 - (i) Provide an encryption appliance (physical or logical) to the County;
 - (ii) Provide the County 'start-up' education including the topics of encryption key assignment, management, and building of customized encryption key definitions;
 - (iii) Maintain all support and licensing for the appliance for the term of the HIPAA-SSP to allow County use.
- c. Provide centralized log management system and retain logs for a period of nine (9) months;
- d. Monitor and control IBM managed system IDs so that IDs can be traced to a single owner for individual accountability;
- e. Monitor and review administrator user activity at the system level for failed login attempts and unauthorized access to logs; and

15.13.3.2 County Responsibilities

County will:

- a. For 'At rest' data encryption:
 - (i) Order a minimum of 1 physical or virtual key management appliance, (minimum of 2 are recommended by IBM);
 - (ii) Set up the encryption appliance and provide all operational support for the encryption appliance;
 - (iii) Retain and manage the encryption keys for data storage;
 - (iv) Perform all encryption key definition and assignment;
 - (v) Define and maintain encryption policy;
 - (vi) House and operate the physical or logical appliance so that IBM resources cannot, by any means, obtain access to County data defined as Protected Health Information;
 - (vii) Provide appropriate personnel and require participation in 'start-up' education including encryption key assignment, management, and building customized encryption key definitions;
 - (viii) Manage encryption profile(s) at individual file levels, deploy user access controls;
 - (ix) Encrypt content in transit between County applications and IBM;

- (x) Back up the encryption key server;
- (xi) Restore encryption key and policy at County disaster recovery site;

The appliance(s) remain with the County at contract termination so that the County can continue to manage the encryption keys.

5.14 CMS Disaster Recovery

5.14.1 CMS Disaster Recovery (CMSDR) Overview

CMSDR provides the ability to recover workloads for individual Managed VM's in the event of a disaster. CMSDR shall provide, manage, monitor and secure priced data replication services for asynchronous replication and VM recovery from an IBM CMS Data Center to another IBM CMS Data Center to support disaster recovery efforts. Infrastructure Recovery Time Objective (RTO) is 4 hours and Recovery Point Objective (RPO) is 15 minutes.

Infrastructure RTO means the time required by the infrastructure to recover from the disaster to the extent that the application recovery can begin. Application RTO means the time required to complete application-level disaster recovery processing and deliver the application to the County. This option provides Infrastructure RTOs only.

Disaster declaration is the responsibility of IBM as per the disaster recovery plan which will be provided to the County following disaster recovery option enablement. The County contact information and the communication process between IBM and the County is defined in the disaster recovery plan.

5.14.2 Disaster Recovery Testing

For IBM managed VMs, one disaster recovery test per contract year is included in the charges for CMSDR. The test only tests recovery of the County workload, and is not a point of delivery wide test. The County may select some or all of the VMs that are disaster recovery protected at the time of the County test. This test will be non-disruptive. IBM will provide a test schedule that includes one test period per calendar quarter. The County may select the test period which is most convenient to The County. The standard test schedule is recommended by IBM, and is coordinated with the County. The County will receive a copy of the test plan with procedures on how to and when to prepare the environment. The County will be provided a fourteen (14) day window to prepare the virtual environment. The test will be conducted over a seven (7) day period. The County must remove the test environment within seven (7) days of test completion, or will be charged for the test environment resources.

IBM will analyze the results of the annual test and will take corrective action to resolve problems that resulted in a failure of the test.

The County has the option to purchase additional tests by submitting a Service Request. The effort and associated charges will be custom sized to the requirements established by the County.

5.14.3 Failback

Failback shall be supported from the disaster recovery site to the original or rebuilt primary site with an RPO=15 minutes and RTO=4 hours.

5.14.4 IBM Responsibilities

IBM will:

- (1) Onboard and set up Secondary Networking Environment at DR Site and provision the site to site link
- (2) Set up Replication Networking Path between Primary and Secondary VM Environments
- (3) but IBM will auto provision the target VM
- (4) implement SAN data replication between primary and secondary VM
- (5) schedule annual disaster recovery test
- (6) make the decision to declare disaster
- (7) recover data and virtual infrastructure
- (8) restore physical primary site
- (9) monitor data replication
- (10) Initiate the CMSDR
- (11) Be responsible for the County site link at both CMS data centers
- (12) Define SAN data replication between primary and secondary VM
- (13) Set up and implement application data replication between primary and secondary VM
- (14) Provision Test VM, Flash Copy, and assist in performing DR Test
- (15) de-activate test environment within seven (7) days following test completion
- (16) Recover application
- (17) Add disk as needed to primary and secondary VMs

In the event of declaration of a disaster, SLA's for availability will be set to a Bronze Level VM.

6.0 County Responsibilities

The successful completion of the proposed scope of work depends on the participation of County management and personnel as set forth herein. The responsibilities listed in this section are in addition to those responsibilities specified in the Agreement, and are to be provided at no charge to IBM. IBM's performance is predicated upon these responsibilities being managed and fulfilled by the County, as scheduled in the IBM Project Schedule. Delays in performance of these responsibilities may result in additional cost and/or delay of the completion of the project, and will be managed in accordance with the SOW Change Control Procedure.

6.1 General County Responsibilities

- a. Ensure that the County staff and subject matter experts are available to provide such assistance as IBM reasonably requires and that IBM is given reasonable access to the County senior management, as well as any members of its staff to enable IBM to provide the

- Services. The County resources will remain available for the project as required for the duration of the project, to the extent these resources remain County employees.
- b. Provide all information and materials reasonably required to enable IBM to provide the Services. IBM is not responsible to the extent that inaccurate or incomplete information provided by the County causes delays or inhibits IBM's ability to perform.
 - c. Be responsible for the review and evaluation of the IBM recommendations as well as all final decisions and implementations relating to, or resulting from, the IBM recommendations contained in the deliverable Materials.
 - d. The County is responsible for the performance of County employees or its sub-contractors. It is County's responsibility to ensure these resources perform all the work expected of them in a manner that will not adversely affect the estimated schedule.
 - e. Responsible for the interpretation of laws and regulations to extent they impact the design of the ERP solution.
 - f. Perform the County's roles and responsibilities as indicated in Attachment 12: Information Security Roles and Responsibilities.
 - g. Provide IBM with Oracle support IDs as needed to provide the Services.
 - h. Provide connectivity to all in scope third party software applications
 - i. Responsible for the accuracy of data provided to IBM in connection with the Services

6.2 County Responsibilities Regarding Managed Services Staffing

- a. The County will attempt to provide notification via the SOW Project Change Control Procedure at least thirty (30) days in advance of any events that may result in an increase in Service Incidents and/or support requirements. The County will ensure that an appropriate training plan is in place to minimize the potential increase of Service Incidents and/or support requirements that may result from such change. By mutual agreement, the County Service Delivery Manager and the IBM SDM may agree to relax the Service Level requirements or provide other relief as appropriate for the areas affected by the changes.
- b. Provide minimum 60 days' notice to ramp up US-based or remote global delivery resources. Staffing changes and any associated scope or support requirement changes will be made using the SOW Change Control Procedure. By mutual agreement, the County's Service Delivery Manager and the IBM SDM may agree to relax the minimum notice requirements or provide other relief as appropriate for the areas affected by the key County staff changes.
- c. Provide 30 day notice to ramp down resources. Staffing changes and any associated scope or support requirements changes will be made using the SOW Change Control Procedure.

7 Acceptance and SOW Completion

7.1 Acceptance Criteria

Acceptance by the County is required for the Software Solution and all Services and Deliverables supplied by IBM or configured or implemented under IBM's supervision under this Agreement.

Deliverable Acceptance - Contract deliverables will be reviewed and accepted in accordance with the Deliverable Acceptance Process included in Section 7.2 of this SOW.

System Acceptance - The ERP software solution will be delivered incrementally with major Waves in accordance with the schedule in Section 1.3. Accordingly, the software solution will be accepted by the County on a Wave by Wave basis. IBM will develop and provide a User Acceptance Test (UAT) Plan deliverable based upon the final approved system specification as documented and approved by the County. The UAT Plan is subject to County's approval and acceptance in accordance with Section 7.2. The County will execute the approved UAT as described, according to the UAT plan schedule and note the deficiencies in accordance with the plan standard. IBM and the County will jointly establish defect severity levels. The system will not Go-Live if there are any Level 1 or Level 2 deficiencies for which IBM was responsible in the Wave. The system will be considered accepted when the system is put into live production with that Wave. IBM will remain obligated to resolve the remainder of the deficiencies for which it was responsible and will establish a work plan (which work plan will be subject to County's approval) to resolve such deficiencies.

7.2 Deliverable Acceptance Process

IBM prepares deliverables in accordance with the Project Schedule and submits them to the County for review and acceptance. Formal acceptance by the County of project deliverables indicates that the deliverables have been completed in accordance with this SOW. Each deliverable will be subject to the following deliverable review and acceptance process:

1. The IBM Project Manager will submit the draft deliverable and a deliverable acceptance form (Attachment 1 – Deliverable Sign-Off Sheet) for each completed deliverable to the County.
2. The County will accept or reject the deliverable within ten (10) Business Days, or such other period of time as may be agreed by the Parties or is otherwise appropriate under the circumstances, from the receipt of the IBM Project Manager's notification of completion.
3. If the County does not accept or reject the deliverable within the period set forth above and does not communicate another timeframe upon mutual agreement in which a decision will be made, the deliverable will be considered accepted.
 - a. Work will progress to maintain the established project schedule, with the understanding that any change to an accepted deliverable constitutes a change in scope.
 - b. A Change Request may result if modifications to the accepted deliverable are required and those modifications affect accepted or in-progress project work.
4. If the County rejects a deliverable, the cause for rejection and defects to be addressed will be documented by the County and provided to IBM with a single, complete set of defects for each deliverable to correct or revise. If revisions are required, IBM will address the County's request for revisions, within the context of the DED, and resubmit

the deliverable to the County within (10) business days. A resubmitted deliverable will be subject to a maximum of one further review in accordance with the acceptance process set forth above. Any further County concerns regarding the deliverable may be addressed through the Issue Escalation Process defined with the Agreement.

5. Status report deliverables will be considered accepted upon submission.

7.3 Quality Gate Reviews

As described in Section 7.2, deliverables are individually reviewed and accepted by the County in accordance with the Project Schedule.

With each milestone, IBM will submit a Quality Gate Check deliverable that provides a high level status report for the Phase indicating status of all IBM deliverables, issues, risks and mitigation strategies. The County, with assistance from its IV&V Contractor, will lead the Quality Gate Review process to conclude within ten (10) Business Days from submission of the Quality Gate Check deliverable. Upon passing the Quality Gate Check without material conditions, the milestone will be considered complete and the project will move to the next phase of the SDLC.

Attachment 1 – Deliverable Sign-Off Sheet

Description	Comment
Deliverable Name	
DED Number	
Deliverable Point of Contact	
Draft file name	
Draft file directory	
Approved file name	
Approved file directory	

Revision	Date	Description

The Comment column to be completed for each deliverable when submitted in draft and final form.

Deliverable Sign-off		
Date	Name, Title, Organization	Signature
	SIGNATURE County	
	SIGNATURE [INSERT VENDOR NAME]	

Attachment 2 – Project Change Request Form

Change Request Number:

General Information			
Requestor Name			Date
Office			
Contact	Phone	Email	Fax

Change Request Definition - (Fill in this section before Change Control Team requests an evaluation)
Description – Describe the proposed change.
Justification – Justify why the proposed changes should be implemented.
Impact of Not Implementing – Explain the impact if the proposed change is not implemented.

Change Request Evaluation Analysis (Fill in this section after Change Control Team confirms evaluation is needed)
<p>Check each that apply</p> <p> <input type="checkbox"/> Project Schedule <input type="checkbox"/> Configuration Item <input type="checkbox"/> Project Costs <input type="checkbox"/> Product Deliverables affected <input type="checkbox"/> Project Scope </p>
Impact Description – Describe the impact for each of the items checked. List all deliverables affected by change request.
Alternatives – If applicable – provide up to three alternatives that could be implemented instead of the proposed change.

Change Control Team Recommendations			
Review Date	Team Members	Notes	Recommendation
			<input type="checkbox"/> Evaluate <input type="checkbox"/> Approve <input type="checkbox"/> Reject <input type="checkbox"/> Defer Until: [DATE]
			<input type="checkbox"/> Approve <input type="checkbox"/> Reject <input type="checkbox"/> Defer Until: [DATE]
Rationale for Recommendation – State the rationale for recommendation.			

Change Request Final Management Approval			
Final Approval Date	Name	Title	Recommendation
			<input type="checkbox"/> Approve <input type="checkbox"/> Reject
Special Instructions – Provide any additional information regarding the final recommendation.			

Alternative Selected and Implemented – Provide a brief description of the alternative selected

Attachment 3 - Functional and Technical Requirements in Scope

The Functional and Technical Requirements in Scope are set forth in Exhibit 2A-3.

1. Hyperion implementation scope:

- The automation of metadata synchronization is out of scope.
- Budget write back can be done through FDMEE only to EBS GL module, for HR data the assumption is that Hyperion will provide data in flat files
- The EBS HCM metadata master data tables (such as the chart of positions, employees, pay plans, benefits) and EBS financials metadata master data tables, such as the chart of accounts and entity, and other master tables must be finalized and loaded prior to the start of Wave 2.
- County will be responsible for converting historical data to the new enterprise Chart of Accounts

2. HCM Implementation Scope:

- The County time collection systems will perform all time and attendance related calculations, including absences, based on any Union related collective bargaining agreements and pass on data output from such calculations into Oracle Payroll.
- Personnel Action forms for employees have standard routing processes in place at all of Cook County including CCHHS and Forest Preserve District.
- All recruiting activity will happen in Taleo. Oracle EBS will be limited to position opening and assigning an employee to the position.
- All on-boarding for County employees will happen through Oracle EBS. Any ad hoc on-boarding processes will be discontinued and be formalized through Oracle EBS.
- Forecasting and budgeting what-if analysis will be performed in budgeting and HR analytics and is considered out-of-scope for HCM implementation.
- For wage garnishments and other wage attachment actions, the County will manually enter them into payroll. If the County is using third party resources for wage attachment, an API / Interface specifications will be provided to integrate into such third party systems.
- The new ERP system will use existing printers for all special printing (i.e., AP and Payroll checks and advices), 1099 and reports
- The new ERP system will use the existing County fax server

3. Security

- The County will provide employee information through Active Directory / LDAP / or any other Identity software that can be integrated into Oracle EBS for validating user access.

Attachment 4 - Reports In Scope

Reports in Scope are set forth in Exhibit 2A-4.

The Analytics and Reports Scope lever defines the reporting and analytics strategy and the number of objects included in the scope of the project. The different reporting tools and their specific application to the overall reporting and analytics solution are broken down by scope.

Out-of-the-box Reports: The out-of-the-box Oracle BI Analytics modules listed below will be deployed in accordance with the phased deployment strategy.

- Oracle BI Financial Analytics
- Oracle BI Human Resource Analytics
- Oracle BI Project Analytics
- Oracle BI Procurement and Spend Analytics

IBM will work with County business users to identify 10 out-of-the box reports (3 Low, 4 Medium, 2 High, 1 Very High Complexity) from each of the 5 OBIA modules that will be subject to end-to-end testing. IBM will develop use cases and test cases and will demonstrate the functionality of these reports in the Conference Room Pilot sessions. The rest of the out-of-the-box analytics reports will be made available to County users based on data availability.

IBM will enable out-of-the-box Oracle Answers Subject Areas for ad hoc query Self-Service. We will work with the County to identify one subject area for each of the BI Analytics modules that will be subject to end-to-end testing. IBM will create use cases and test cases for that subject area and conduct an end-to-end test. The rest of the out-of-the-box Oracle BI Analytics subject areas are made available to the County users based on the data availability.

Oracle Business Intelligence Integration: Oracle BI will be integrated with Oracle EBS as the single source for analytics using ODI and Cookie Authentication method (not including Single Sign-or out-of-the-box ETL performance tuning). Integration with the County portal or other source systems is not in scope for this project. No historical data, other than that present in the EBS source system, will be brought into the Oracle Business Analytics Data Warehouse (OBAW).

Custom Reports: IBM team's analyzed the functional and technical requirements document (Worksheet 4) provided in the RFP and grouped the reporting requirements as Oracle BI Publisher Reports, Hyperion Reports and Oracle BI Analytics reports. Table 3 defines the number of reports that IBM will develop by type of report and complexity. To the extent possible, IBM will leverage and tailor pre-built BI Publisher reports to meet the County requirements.

Table A4-1: Custom Report Scope

Table A4-1: Custom Report Scope					
Oracle BI Publisher/XML Reports	15	9	6	2	32

Hyperion Reports	17	34	15	3	69
Oracle BI Analytics	5	27	5	2	39
TOTAL	37	70	26	7	140

Deviations that arise during the project with the reports estimates defined above will be managed in accordance with the SOW Change Control Procedure, and may result in adjustments to the Project Scope, Estimated Schedule, Fees and other terms.

Table A4-2: Report Complexity - Oracle BI Publisher/XML Reports, Hyperion Reports & Oracle BI Analytics Reports

Report Complexity	Complexity Description
Low	<ul style="list-style-type: none"> ▪ Total 7 columns, 4 dimensions, 3 simple facts ▪ Data model changes include 2 physical tables with 4 fields ▪ ODI effort to create new / modify the 3 scenarios & 2 Load plans that includes not more than 5 transformations ▪ OBI Security - 2 security groups (object level), 2 data level security objects, 1 subject area, testing & validation of 1 user per module
Medium	<ul style="list-style-type: none"> ▪ Total 7 columns, 4 dimensions, 2 Complex & 1 simple facts ▪ Data Model changes include 4 physical tables with 8 fields ▪ ODI effort to create new / modify the 4 scenarios & 4 Load plans that includes not more than 7 transformations ▪ OBI Security - 3 security groups (object level), 3 data level security objects, 2 subject areas, testing & validation of 1 user per module
High Complex	<ul style="list-style-type: none"> ▪ Total 7 columns, 4 dimensions, 3 Complex facts ▪ Data Model changes include 8 physical tables with 12 fields ▪ ODI effort to create new / modify the 6 scenarios & 6 Load plans that includes not more than 9 transformations ▪ OBI Security - 5 security groups (object level), 4 data level security objects, 3 subject areas, testing & validation of 2 user per module
Very High Complex	<ul style="list-style-type: none"> ▪ Total 12 columns, 6 dimensions, 3 Complex & 3 very high complex facts ▪ Data Model changes include 12 physical tables with 18 fields ▪ ODI effort to create new / modify the 8 scenarios & 8 Load plans that includes not more than 9 transformations. ▪ OBI Security - 7 security groups (object level), 5 data level security objects, 5 subject areas, testing & validation of 3 user per module

Attachment 5 - Interfaces in Scope

Interfaces in Scope are set forth in Exhibit 2A-5.

The Interface scope defines the interfaces required to support the integration of the systems required by the proposed solution.

The custom interface scope has been estimated based on the County requirements in Worksheet 4 and the interfaces listed in Worksheet 6. We've identified a total of 81 interfaces for the project. Table A5-1 shows the count of interfaces by level of complexity.

Interface development is limited to outbound and inbound interfaces with the Oracle EBS, Hyperion and BI solution described in the Software Scope section.

Table A5-1: Interface Scope

17	36	22	6	81
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Deviations that arise during the project with the interface estimates defined above will be managed in accordance with the SOW Change Control Procedure, and may result in adjustments to the Project Scope, Estimated Schedule, Fees and other terms.

Table A5-2: Interface Complexity Definitions

	Complexity			
	Low	Medium	High	Very High
Interfaces	<ul style="list-style-type: none"> • Outbound data exchange • No Data validation • No API / Concurrent program calls • Delimited data • Basic exception handling • <=3 target tables with simple queries • <= 1 Loops/cursor • <=10 data elements • <=2 function calls 	<ul style="list-style-type: none"> • Inbound or Outbound data exchange • Basic Data validation • Standard API / Concurrent program calls • Delimited / Fixed width data • Standard exception handling • <=5 target tables with simple queries • <=2 Loops / cursors with simple business logic • <=15 data elements • <=5 function calls 	<ul style="list-style-type: none"> • Inbound & Outbound data exchange (Bi-Directional) • Moderate Data validation • Usage of Standard API / Concurrent programs • Delimited / Fixed width / EDI data • Complex exception handling • Usage of date types like 'Record', 'PL/SQL Table', 'Cursors' etc. • Usage of UTL file • <=8 target tables with moderate complex queries • <=5 Loops / cursors 	<ul style="list-style-type: none"> • Inbound & Outbound data exchange (Bi Directional) • Complex Data validation • Usage of non-standard • PI / Concurrent programs • Delimited / Fixed width / EDI / XML data • Complex exception handling • User defined exceptions and pre-compiler directives • Usage of multiple cursors, nested looping, and inline

			with moderate business logic • <=25 data elements • <=10 function calls	queries • >8 target tables with complex queries • >5 Loops / cursors with complex business logic • >25 data elements • >10 function calls
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County Interface Scope Responsibilities:

1. The County will provide legacy IT systems personnel that have detailed data / systems knowledge that is required for the redesign and development of the legacy system portion of the interfaces and is responsible for their timely participation to support the project work plan. Any legacy system changes will be County's responsibility or a third party as applicable. The County exposes the legacy stub end for testing interfaces before cutover and in accordance with the Project Schedule.
2. The County will cleanse data in the legacy systems as required to support interfaces with the ERP solution.
3. IBM will provide the County a standard format for interfaces. County will be responsible for developing legacy system interfaces in accordance with this format.
4. Data mapping will be performed by joint County and IBM teams.
5. The County (or designated third parties) will provide API's / interface specifications for external systems that will be integrated with ERP (e.g., financial institutions, credit unions, benefits providers). The County will direct these third providers to work with IBM to establish interface requirements and coordinate necessary security and testing.
6. The County time collection systems will be compatible with and can be integrated into Oracle EBS v12.

Attachment 6 - Conversions in Scope

Data conversions in scope are set forth in Exhibit 2A-6.

The Data Conversion scope defines the approach to data conversions and identifies the conversions that will be required to transition to the target environment.

The custom data conversion scope has been estimated based on the County requirements in Worksheet 4 and the interfaced listed in Worksheet 7. We've identified a total of 42 conversions that are required for the project. Table 7 shows the count of in-scope conversions by level of complexity.

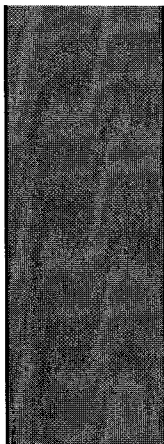
Table A6-1: Data Conversion Scope

8	21	12	1	42

Deviations that arise during the project with the conversion estimates defined above will be managed in accordance with the SOW Change Control Procedure, and may result in adjustments to the Project Scope, Estimated Schedule, Fees and other terms.

Table A6-2: Data Conversion Complexity Definitions

	Complexity			
	Low	Medium	High	Vary High
Conversions	<ul style="list-style-type: none"> • Single level / single record data file • No / Basic Data validation • No data clean up / Transformation • Use standard API / Interface • Basic exception handling • <=2 target tables • No Loops / cursors • <=10 data elements • <=2 function calls 	<ul style="list-style-type: none"> • Multilevel Data file containing up to 2 record types • Basic Data validation and data transformation • Use standard API / Interface • Standard exception handling • Use of up to one staging table and open interface table • <=5 target tables • <=2 Loops / cursors • <=15 data elements • <=5 function calls 	<ul style="list-style-type: none"> • Multi-level data file Moderate Complex • Data validation and data transformation • Use standard API / Interface • Complex logic exception handling • Use of up to 3 staging and open interface tables • Use of up to 5 standard APIs • <=8 target tables • <=5 Loops / cursors with staging table • <=25 data elements • <=10 function calls 	<ul style="list-style-type: none"> • Multi-level data file containing more than 4 record types • Complex Data validation • Data transformation up to 10 attributes based on complex queries • Custom exception handling • Use of more than 3 staging and open interface tables • Uses open interface error handling and reporting • Use of more than 5 standard APIs • Use of custom APIs (Custom API will be a separate object) • Direct table loads

				where open interface or APIs not available <ul style="list-style-type: none">• >8 target tables• >5 Loops / cursors with staging table• >25 data elements• >10 function calls
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The IBM approach to Data Conversion includes five steps of critical activities that must be defined and executed throughout the project lifecycle. These five steps include conversion planning, conversion design and development, data cleansing and handling, conversion testing, and production conversion.

Conversion Planning

The objective of this step is to determine the data conversion scope and approach, determine conversion data sources and tools, identify key resources and skill sets necessary, develop a conversion plan and checklist, and develop a set of repeatable reconciliation procedures. During this step a list of conversion objects is validated including requirements such as volume, complexity, legacy source, data integrity, and resources that are familiar with the data. The amount of history required is documented and confirmed to be consistent across the data conversion scope.

Conversion Design and Development

The objective of this step is to define data mappings, sets and formats including the level of detail and history required for each conversion. Once the data conversion approach is developed, the data conversion programs and specific field mapping requirements and formats must be developed. Once field mapping is complete, the project team will confirm that the data from the legacy systems is accurately mapped to Oracle data structures.

Data Cleansing and Handling

The objective of this step is to define conversion requirements, design legacy data extraction programs, develop and test the extraction programs, and perform data cleansing. Identification of data to be extracted from legacy systems will be jointly determined by IBM and the County (or its Third Party); including critical extraction rules and required data extraction formats. The process of extracting data from legacy systems (including any code / development) will be performed by the County or its Third Party. The project team will identify and specify the data uploads and help the County (or its Third Parties) identify the appropriate data cleaning activities. The County (or its Third Party) will be responsible for all data cleansing activities with support from IBM. The County (or its Third Party) will have to perform a detailed analysis of their data and identify cleansing criteria and guidelines. Upon completion of data conversion, the Business Process Owners will be responsible for the data and will need to develop repeatable reconciliation procedures. Extraction from legacy based systems will be led by the County or its Third Party.

Conversion Testing

The objective of this step is to practice the entire data conversion process prior to the actual cutover. Conversion testing cycles will be performed in order to confirm the quality of the converted data, the sequence of conversions, and an estimate of the amount of time that may be necessary to perform conversions during the actual cutover process. The data validation process will be defined in the Data Conversion Strategy. The proposed approach will include up to three cycles of conversion testing coinciding with System Integration Testing cycles (SIT1) with sample sets of master data. The 1st Conversion Cycle includes a mock data conversion which will precede SIT1. The 2nd Conversion cycle includes a complete data conversion with all conversion files and precedes SIT2. User Acceptance Testing (UAT), which will include up to one (1) full conversion (Initial Conversion) of all automated conversion objects, and a Mock Cutover/Conversion that will include a full set of automated conversions and a sample set of manual conversions for validation purposes. To support conversion testing, IBM will create one basic report for each conversion program – each report will provide basic validation of that data converted into Oracle.

IBM will be responsible for developing the data conversion programs and it will go through an iterative cycle of testing to refine the process prior to production cutover.

Production Conversion

The objective of this step is to perform the Production Conversion into the production system as well as perform any post-conversion activities such as manual corrections.

Additionally, conversions are categorized into two different groups, 1) by method of conversion and, 2) by type of data:

Conversion Method

- **Automated** – Performed by running a set of developed scripts or programs to programmatically load converted data into the target system
- **Semi-Automated** – Performed by using macro-based tools such as Oracle Web ADI or Dataloader. Data is passed through form validation during entry
- **Manual** – Data is mapped manually and input is performed by IBM data entry personnel or the County end-users as defined in the data conversion strategy IBM is responsible for the quality and accuracy of the data converted by its data entry personnel

Conversion Data Type

- **Static or Master data** – This data is considered control or master data. Examples include Chart of Accounts, customer, items, and vendors
 - **Transactional data** – This data stores business transactions. Examples include open purchase orders.
1. Conversions will be developed in accordance with IBM and Oracle approved processes (i.e., IBM Oracle Method) and data conversion templates. Accordingly, data conversion programs will not directly update Oracle tables.
 2. For Oracle EBS, only open items/transaction migration is in scope. Any requirements for historical data conversion will be reviewed with the County with the data conversion strategy and assessed for impact to scope.
 3. Financials data conversion:

- All non-General Ledger module conversions will not update the commitment control tables and balances. Only general ledger journal conversions will update commitment control tables and balances.
 - Prior to production cutover, business processes including voucher processing and purchase requisitions will be halted in the legacy system; current transactions will be subsequently entered by the County in the EBS system.
 - Purchase requisitions will not be converted into EBS for Go-Live. Instead open requisitions will be re-keyed into EBS by the County.
 - Only open purchase orders will be converted into EBS for Go-Live.
4. HCM data conversion:
- The conversion of human resource data will be crucial for the successful implementation of Finance and procurement in Wave 1. HR data will be needed to utilize the full functionality of the Approvals Management Engine.
 - Another reason HR data will be converted with Wave 1 is that human capital budget is a significant part of overall operating budget. Core HR data will be needed to develop and maintain the position budgeting that will be used with Budget Preparation in Wave 2.
 - In Wave 3, employees and retirees from the JDE Enterprise-One system will be converted into EBS. Their corresponding job, salary and pay history for the last 5 years will also be converted for all employees. All employees that are active at the time of Go-Live will have the following converted as well:
 - Personal Information
 - Address Information
 - Assignment Information
 - Salary Information
 - Terminations
 - Special Information Types
 - Extra Information Types
 - Personal Payment Methods
 - Tax Information - Federal
 - Tax Information - State
 - Tax Information - Local
 - Element Entries
 - Phones
 - Emergency Contacts
 - Performance Ratings
 - Benefits details
 - Other deductions

5. Hyperion:

- Data necessary for Hyperion to produce report deliverables (e.g., CAFR, budget documents) will be sourced from Hyperion Planning and Hyperion Public Sector Budgeting and Planning (PSBP).
- Data loads from HR and Projects will be loaded using Essbase loadable flat files.
- The source system for data for Hyperion is a single instance of EBS (Financials, HCM); no external data will be integrated for the Wave 2 Budget Preparation Scope from legacy systems.

County Data Conversion Responsibilities

1. The County will be responsible for data extraction from legacy systems, data cleansing in legacy systems, and providing the data in the Data Conversion Template provided by IBM to upload data in Oracle EBS.

2. The County is responsible for data validation and reconciliation necessary to accept the converted data.
3. Data mapping will be performed by jointly County and IBM teams.
4. The County is responsible for archiving any data that it wants to retain for record retention, reporting, and other purposes that will not be converted from legacy systems.
5. County is responsible for using the data from the reports to perform data conversion activities.

Other Data Conversion responsibilities:

- IBM is responsible to load data from staging tables into Oracle EBS interface tables along with unique record identifier in one of the descriptive flex fields for traceability and future reference purposes
- IBM is responsible for facilitating exception reporting. IBM will provide custom data extracts (from Staging Table) that can be verified against Oracle EBS and/or custom developed reports.

Attachment 7 - Enhancements in Scope

Enhancements in scope are set forth in Exhibit 2A-7.

The Technical Enhancement Scope lever defines enhancements (e.g., customizations, extensions) to the Oracle application software modules. While our standard approach is to design the solution to follow the “vanilla” processes of the application, enhancements are sometimes necessary to meet business requirements.

Table 9 shows the count of enhancements estimated to be in scope based on the list of requirements and functional processes included with the RFP (Worksheets 4, 8 and 9), by level of complexity.

Enhancements will be developed in accordance with IBM and Oracle approved processes and Oracle development tools will be used to develop the in-scope enhancements where appropriate.

Table A7-1: Enhancement Scope

Enhancement	8	28	32	4	72

Deviations that arise during the project with the enhancement estimates defined above will be managed in accordance with the SOW Change Control Procedure, and may result in adjustments to the Project Scope, Estimated Schedule, Fees and other terms.

Table A7-2: Enhancement Complexity Definitions

	Complexity			
	Low	Medium	High	Vary High
Oracle Forms	<ul style="list-style-type: none"> Usage of 1-2 application tables Single canvas having 5 or less fields Can be fully developed using Wizard in few easy steps with no further manipulation. No use of folder No Drill Down feature 	<ul style="list-style-type: none"> Usage of 3-5 application tables One or two canvases having 6 to 10 fields Blocks based on tables only Minimal or no use of program units. No use of Folder No Drilldown feature 	<ul style="list-style-type: none"> Usage of 6-8 application tables Usage of tabbed and stacked canvases Calls to program units Overriding standard triggers such as ON-INSERT, ON-UPDATE etc. Usage of list of values Calling concurrent programs/ forms/ launching workflow from forms Enhancement of features in existing forms Use of simple folders. No drill down features 	<ul style="list-style-type: none"> Usage of more than 8 application tables Usage of procedure-based data blocks and ref cursors Usage of non-database-based columns and implementing business logic for the same Message suppression Dynamic list of values Usage of messages/ attachments Communication with other applications Using complex custom database objects Substantial enhancement of features in existing forms. Use of many Folders into Form. Call of OAF page from

	Complexity			
	Low	Medium	High	Vary High
				form. • Use of Drill Down features of records.
PL/SQL Programs	<ul style="list-style-type: none"> • <=1000 lines of code • Basic Business logic based on data internal to Apps • Simple data validations • <=3 tables to access • <=2 loops / cursors with no staging tables • Minimal use of functions / procedures 	<ul style="list-style-type: none"> • <=2000 lines of code • Moderate Business logic based on data internal to Apps • Moderate data validations • <=5 tables to access • <=4 loops / cursors with staging tables • Moderate use of functions / procedures 	<ul style="list-style-type: none"> • <=3000 lines of code • Complex Business logic based on data internal to Apps • Complex data validations • Data reporting using Standard Oracle report format or Flat file extracts • <=8 tables to access • <=7 loops / cursors with staging tables • Extensive use of functions / procedures 	<ul style="list-style-type: none"> • >3000 lines of code • Complex Business logic based on data internal to Apps • Business logic requires calls to external applications • Complex data validations • Data reporting using non Oracle Reporting tools • >8 tables to access • >7 loops / cursors with staging tables • Extensive use of functions / procedures
Alerts	<ul style="list-style-type: none"> • Simple record selection criteria • <=3 tables to access • Minimal use of functions / procedures 	<ul style="list-style-type: none"> • Simple record selection criteria • <=5 tables to access • Minimal use of functions / procedures 		

Attachment 8 - Workflow in Scope

Custom workflows in scope are set forth in Exhibit 2A-8.

IBM will leverage Oracle standard out-of-the-box workflows (such as approvals routings in purchasing). Standard workflows will be implemented consistently across the County such that all agencies will follow the agreed upon standard and not have unique workflows for their agency. Exceptions to develop custom workflows for unique business requirements may be granted by the County, subject to the total count of custom workflows described with this Attachment.

Table XX shows the count of workflows estimated to be in scope based on the list of requirements and functional processes included with the RFP (Worksheets 4, 8 and 9), by level of complexity.

Table A8-1: Workflow Scope

Workflow Scope					
Workflow	0	13	8	0	21

Deviations that arise during the project with the reports estimates defined above will be managed in accordance with the SOW Change Control Procedure, and may result in adjustments to the Project Scope, Estimated Schedule, Fees and other terms.

The complexity definitions for Workflow are described in Table A8-2.

Table A8-2: Workflow Complexity Definitions

Workflow Complexity			
Low	Medium	High	Very High
<ul style="list-style-type: none"> Modification of an existing workflow to cater simple business requirement Sending single notification with simple message to an existing role No custom PL/ SQL procedure call No API or concurrent program calls. Simple Notification Message layout. No Document Attachment in notification No Parallel Notification to multiple recipients 	<ul style="list-style-type: none"> Modification of an existing workflow to cater simple business requirement Sending single notification with simple message to an existing role Involve call to one custom PL/ SQL procedure Simple PL/ SQL procedure design involving not more than three custom or base application tables Basic validation and error processing and standard 	<ul style="list-style-type: none"> Design of new workflow process involving not more than one sub process Modification of an existing workflow to cater business requirement of medium complexity Form level customization for calling the workflow Event based workflow of low complexity Sending multiple notifications to multiple roles Involve call to more than one custom PL/ SQL procedure of medium complexity Use of time out feature Basic validation and error processing and standard exception handling 	<ul style="list-style-type: none"> Design of new workflow process involving more than one sub process with complex branching Modification/ redesign of an existing workflow to cater complex business requirements Form level customization for calling the workflow Complex event based workflow Sending multiple notifications to multiple roles using message built from multiple items Involve call to more than one complex custom PL/ SQL procedure Use of advanced time out feature Basic validation and error processing and standard exception handling Involve call to API or concurrent program. Complex Notification Message Layout.

Workflow Complexity			
Low	Medium	High	Very High
	exception handling <ul style="list-style-type: none"> • No API or concurrent program calls. • Simple Notification Message layout. • No Document Attachment in notification • No Parallel Notification to multiple recipients 	<ul style="list-style-type: none"> • No API or concurrent program calls. • Medium Notification Message Layout. • Use of Document Attachment in notification • Use of simple Voting mechanism in case of parallel notification to multiple recipients 	<ul style="list-style-type: none"> • Use of Document attachment in notification • Use of complex Voting mechanism in case of parallel notification to multiple recipients

Attachment 9 - Deliverable Expectation Documents

The Deliverable Expectation Documents (DEDs) are provided in Exhibit 2A-9.

- English will be the official language of the project. All development, configuration, documentation, deliverables, project materials workshops, training and other project activities will be in English.
- Project documentation will be completed in Microsoft Office or Adobe PDF format.

Attachment 10 – Organization and Training in Scope

The Organization Scope lever defines the project’s impact on the organization and end-users, and outlines the change management activities included in the scope of the project.

1. The Countywide ERP solution will be implemented for Cook County Agencies, Bureaus and Departments, Cook County Health and Hospital system and the Forest Preserve District. Table A10-1 provides a list of County organizations in scope for this project.

Table A10-1: County Organization Summary

Offices Under the President	County Board President	33
Offices Under the President	Bureau Of Administration	548
Offices Under the President	Bureau Of Finance	243
Offices Under the President	Bureau Of Human Resources	49
Offices Under the President	Bureau Of Technology	155
Offices Under the President	County Auditor	12
Offices Under the President	Administrative Hearing Board	9
Offices Under the President	Department Of Human Rights And Ethics	11
Offices Under the President	Inspector General	20
Offices Under the President	Veteran's Assistance Commission	-
Offices Under the President	Bureau Of Economic Development	80
Offices Under the President	Cook County Land Bank Authority	4
Offices Under the President	Homeland Security And Emergency Management	50
Offices Under the President	Asset Management	565
Offices Under the President	Public Defender	704
CCHHS	Cook County Health and Hospital System	6874
Forrest Preserve District	Forrest Preserve District	661
Elected Officials	Chief Judge	3,204
Elected Officials	Clerk Of The Circuit Court	1,802
Elected Officials	Sheriff	6,807
Elected Officials	State's Attorney	1,415
Elected Officials	County Assessor	338
Elected Officials	County Treasurer	89

Elected Officials	Board Of Review	126
Elected Officials	County Clerk	278
Elected Officials	Recorder Of Deeds	181
Commissioners	Cook County Board of Commissioners	86
Public Administrator	Public Administrator	18
Election Commissioners	Cook County Board of Election Commissioners	4
	TOTAL	24,367

*FTE Count above is approximate, is provided for informational purposes only, and in no way restricts the scope of Services to be provided hereunder.

2. IBM will develop and deliver training for each of the four (4) Waves defined in our deployment strategy. Training will be delivered either with Oracle User Productivity Kit (UPK) (Web-based training) and/or classroom (instructor led training).
3. The end-user training delivery days estimate is based on a maximum of 20 users per class, with one user per computer terminal.
4. IBM will report training completion statistics for the implementation project.
5. Table A10-2 describes training scope – maximum content duration, delivery method, and number of instructor led classroom sessions to be delivered by IBM.

Table A10-2: Training Content Scope

1	COA Design - Accounting Staff	N/A	4	Instructor-led Virtual Classroom	1, recorded for replay
1	COA Design - End Users of Accounting Codes	N/A	1	Instructor-led Virtual Classroom	1, recorded for replay
1	General Ledger	150	20	Classroom based ILT	10 classes, 20 users each
4	Project Costing	50	16	Classroom based ILT	3 classes, 20 users each
4	Grants	50	8	Classroom based ILT	3 classes, 20 users each
1	Budget Control	30	6	Classroom based ILT	2 classes, 20 users each

1	Accounts Payable / Payments	25	14	Classroom based ILT	2 classes, 20 users each
1	Accounts Receivable	10	12	Classroom based ILT	2 classes, 20 users each
1	Standard Reporting for Financials	N/A	2	On-Line Self-Paced	N/A
1	Purchasing	30	10	Classroom based ILT	2 classes, 20 users each
1	iProcurement	N/A		Quick Reference Guide	
1	BI for Financials (analytics, ad hoc reporting and building dashboards)	5	8	Classroom based ILT	1 class, 20 users each
4	BI for Projects (analytics, ad hoc reporting and building dashboards)	5	8	Classroom based ILT	1 class, 20 users each
1	Fixed Asset Management	10	7	Classroom based ILT	2 classes, 20 users each
2	Hyperion (Budget Preparation)	50	10	Classroom based ILT	10 classes, 20 users each
3	Core HR	80	8	Classroom based ILT	4 classes, 20 users each
3	Benefits (BN)	30	8	Classroom based ILT	2 classes, 20 users each
3	Payroll	20	10	Classroom based ILT	2 classes, 20 users each
3	Standard Reporting for HCM	N/A	2	On-Line Self-Paced	N/A
3	BI for HR (analytics, ad hoc reporting and building dashboards)	5	8	Classroom based ILT	1 class, 20 users each
3	Employee Self-Service	N/A	0.17	Quick Reference Guide	N/A

3	Manager Self-Service	N/A	0.25	Quick Reference Guide	N/A
3	BN Enrollment	N/A	0.25	Quick Reference Guide	N/A
4	BI for Procurement and Spend (analytics, ad hoc reporting and building dashboards)	5	8	Classroom based ILT	1 class, 20 users each
4	Procurement / Contracts / Sourcing	20		Classroom based ILT	
4	Vendor Self Service	N/A	0.17	Quick Reference Guide	N/A
4	Inventory Management	100	3	Classroom based ILT	5 classes, 20 users each
All	Basic Navigation Training		TBD	On-Line Self-Paced	

County Organization Scope Responsibilities:

1. Training documents produced by IBM during the course of the implementation will be specifically designed for the ERP implementation. Any merging of this content or training with on-going County training is a responsibility of the County.
2. The County will name a Training Coordinator to manage all internal approvals related to training.
3. County end-users will have the necessary personal computer skills to use the system prior to the start of training delivery. It is not within the proposed scope of this response to evaluate and provide necessary training to all County end-users for basic personal computer skills.
4. The County will provide all training facilities sufficient for all End-User instructor led training and computers. All training will be delivered in Cook County.
5. The County will identify all end users needing to be trained, with assistance from Team IBM. The County will be solely responsible for addressing any union or other labor relations issues related to securing participation/attendance of County end users in training.
6. The County will provide Internet access for all end users to register for training courses on-line, or alternatively County will be responsible for having the County Training Coordinator register end users for training on-line.

7. The County will provide change agents (change champions) in each department based on the time commitment and skills outlined in the accepted Organizational Change Management Plan. These change agents will be responsible for executing localized change management activities and encouraging change among their peers.

Attachment 11 – Technical Infrastructure/Environment in Scope

The Technical Infrastructure Scope defines the hardware, software, and networks required to support the ERP implementation. This includes operating systems, databases, servers, storage, network, and package applications.

Environments and Back-up

IBM's Cloud Managed Services solution provides the infrastructure to support the environments listed Table A11-1 below.

IBM will provide the County with a managed server environment to support the ERP solution. The Cloud Managed Services Environment included in the SOW includes the following attributes:

- Information Technology Information Library (ITIL) based management which includes monitoring, intrusion detection and patch management through the Operating System.
- The IBM solution is comprised of 57 total virtual machines with a staggered deployment over time. Larger VMs for production will replace smaller VMs as increased capacity is required. CMS hosting utilized an underlying server infrastructure of IBM Power Systems with the AIX operating system and IBM System x running Microsoft Windows. Table A11-1 provides break out of the VMs and their specifications along with the month the resource will come into service.
- Included as part of the standard CMS solution is automated backup and restore services.
- As part of the HIPAA Support Services Pack, IBM will provide two (2) HIPAA encryption appliances that will be implemented at the County's data center location.
- IBM utilizes the Tivoli Storage Manager (TSM) and Automated Tape Libraries in each data center
- The County will have the ability to select the backup frequency (daily, monthly, quarterly, yearly) and retention policy for all data files.
- All backups are copied to two separate encrypted tapes so two identical sets of tape backups are created. One tape is maintained locally and the other is sent off-site for vaulting (Iron Mountain) daily. All County data will stay within the United States.
- All backups will be encrypted using Tivoli Key License Manager (TKLM) which provides AES 256 encryption for the data backup. TKLM runs on two separate System x servers per Cloud Infrastructure site to provide fault tolerance. IBM also provides unique key per backup tape cartridge. Encryption keys are managed and protected by IBM and stored in separate servers at each Cloud Data Center location. These keys will be backed up to a central remote Cloud Infrastructure site and these centralized keys will then be backed up to a secondary Cloud Infrastructure site.

Table A11-1: Cloud Managed Services Infrastructure Components for the County's ERP environment

ERP Application Environment Supported	Server Type	VM Type	OS Platform	# of VMs	#vCPUs or Cores	VM Size or Storage Allocation	RAM GETVM	Tier 1 Storage GB	Tier 3 Storage GB	HIPAA	Start Month	End Month
EBS : Patch, Sandbox, DEV, Test	Application	64-bit	AIX	1	5	Core-based	40		1000		1	120
EBS : Patch, Sandbox, DEV, Test	Data Base	64-bit	AIX	1	5	Core-based	40		1600		1	120
EBS : QA	Application	64-bit	AIX	1	6	Core-based	32	250			6	120
EBS : QA	DMZ	64-bit	AIX	1	1	Core-based	8	250			6	120
EBS : QA	Data Base	64-bit	AIX	1	4	Core-based	32	400			6	120
EBS : Prod	Application	64-bit	AIX	1	6	Core-based	32	250		HIPAA	13	26
EBS : Prod	DMZ	64-bit	AIX	1	2	Core-based	8	250		HIPAA	13	26
EBS : Prod	Data Base	64-bit	AIX	1	4	Core-based	32	1000		HIPAA	13	26
EBS : Prod	Application	64-bit	AIX	1	12	Core-based	64	250		HIPAA	27	120
EBS : Prod	DMZ	64-bit	AIX	1	3	Core-based	16	250		HIPAA	27	120
EBS : Prod	Data Base	64-bit	AIX	1	8	Core-based	64	1000		HIPAA	27	120
EBS : Gold, Psupport, Training, Conversion	Application	64-bit	AIX	1	7	Core-based	56		1000		6	29
EBS : Gold, Psupport, Training, Conversion	Data Base	64-bit	AIX	1	7	Core-based	56		1600		6	29
EBS : UPK	UPK	64-bit	Windows	1	4	Custom	16		120		9	120
EBS : UPK	Data Base	64-bit	AIX	1	4	Core-based	8		250		9	120
BI : Patch, Dev, Test	Application	64-bit	AIX	1	4	Core-based	32		600		1	120
BI : Patch, Dev, Test	Data Base	64-bit	AIX	1	4	Core-based	32		1200		1	120
BI : QA	Application	64-bit	AIX	1	6	Core-based	32	200			7	120
BI : QA	Data Base	64-bit	AIX	1	4	Core-based	32	400			7	120
BI : Prod	Application	64-bit	AIX	1	6	Core-based	32	200			13	26
BI : Prod	Data Base	64-bit	AIX	1	6	Core-based	32	1000			13	26

ERP Application Environment Supported	Server Type	VM Type	OS Platform	# of VMs	#vCPUs or Cores	VM Size or Storage Allocation	RAM GB/VM	Tier 1 Storage GB	Tier 3 Storage GB	HIPAA	Start Month	End Month
Hyperion : Dev, Test	Application	64-bit	AIX	1	4	Core-based	32		600		7	120
Hyperion : Dev, Test	Data Base	64-bit	AIX	1	4	Core-based	32		750		7	120
Hyperion : Dev, Test	Application	64-bit	Windows	1	2	Custom	4	128			7	120
Hyperion : QA	Application	64-bit	AIX	1	2	Core-based	16	200			13	120
Hyperion : QA	Application	64-bit	Windows	1	2	Custom	4	128			13	120
Hyperion : QA	Data Base	64-bit	AIX	1	2	Core-based	16	250			13	120
Hyperion : Prod	Application	64-bit	AIX	1	6	Core-based	32	200			17	120
Hyperion : Prod	Data Base	64-bit	AIX	1	6	Core-based	32	500			17	120
Hyperion : Prod	Application	64-bit	Windows	1	2	Custom	4	500			17	120
SOA FMW : Patch, Dev, Test												
SOA FMW : Patch, Dev, Test	Application	64-bit	AIX	1	5	Core-based	40		1000		4	120
SOA FMW : Patch, Dev, Test	Data Base	64-bit	AIX	1	5	Core-based	40		1600		4	120
SOA FMW : QA	Application	64-bit	AIX	1	6	Core-based	32	250			7	120
SOA FMW : QA	Data Base	64-bit	AIX	1	4	Core-based	32	400			7	120
SOA FMW : PROD	Application	64-bit	AIX	1	6	Core-based	32	250			13	26
SOA FMW : PROD	Data Base	64-bit	AIX	1	4	Core-based	32	1000			13	26
SOA FMW : PROD	Application	64-bit	AIX	1	12	Core-based	64	250			27	120
SOA FMW : PROD	Data Base	64-bit	AIX	1	8	Core-based	64	1000			27	120
Boulder Child Data Center for Disaster Recovery												
EBS : Prod DR	DR App	64-bit	AIX	1	2	Core-based	16		500	HIPAA	13	26
EBS : Prod DR	DR DMZ	64-bit	AIX	1	1	Core-based	8		500	HIPAA	13	26
EBS : Prod DR	DR DB	64-bit	AIX	1	2	Core-based	16		2000	HIPAA	13	26
EBS : Prod DR	DR App	64-bit	AIX	1	3	Core-based	32		500	HIPAA	27	120
EBS : Prod DR	DR DMZ	64-bit	AIX	1	1	Core-based	8		500	HIPAA	27	120
EBS : Prod DR	DR DB	64-bit	AIX	1	2	Core-based	32		2000	HIPAA	27	120

ERP Application Environment Supported	Server Type	VM Type	OS Platform	# of VMs	#vCPUs or Cores	VM Size or Storage Allocation	RAM GB/VM	Tier 1 Storage GB	Tier 3 Storage GB	HIPAA	Start Month	End Month
BI : Prod DR	DR APP	64-bit	AIX	1	2	Core-based	16		400		13	26
BI : Prod DR	DR DB	64-bit	AIX	1	2	Core-based	16		2000		13	26
BI : Prod DR	DR APP	64-bit	AIX	1	3	Core-based	32		400		27	120
BI : Prod DR	DR DB	64-bit	AIX	1	3	Core-based	32		2000		27	120
Hyperion : Prod DR												
Hyperion : Prod DR	DR APP	64-bit	AIX	1	2	Core-based	16		400		17	120
Hyperion : Prod DR	DR DB	64-bit	AIX	1	2	Core-based	16		1000		17	120
Hyperion : Prod DR	DR APP	64-bit	Windows	1	1	Custom	2		1000		17	120
SOA FMW : PROD DR												
SOA FMW : PROD DR	DR APP	64-bit	AIX	1	2	Core-based	16		500		13	26
SOA FMW : PROD DR	DR DB	64-bit	AIX	1	2	Core-based	16		2000		13	26
SOA FMW : PROD DR	DR APP	64-bit	AIX	1	3	Core-based	32		500		27	120
SOA FMW : PROD DR	DR DB	64-bit	AIX	1	3	Core-based	32		2000		27	120

The Services include the non-production, production and disaster recovery environments that are required through the implementation and managed services period of performance (Table A11-2).

Table A11-2: Cloud Managed Services Environments

Environment Name	Component	Start Date	End Date
Patch	EBS	10/1/2015	9/30/2025
Sandbox	EBS	10/1/2015	9/30/2025
Dev	EBS	10/1/2015	9/30/2025
Test	EBS	10/1/2015	9/30/2025
QA	EBS	3/1/2016	9/30/2025
Prod	EBS	10/1/2016	9/30/2025
Prod (DR)	EBS	10/1/2016	9/30/2025
Gold	EBS	3/1/2016	2/28/2018
Prod Support	EBS	3/1/2016	2/28/2018
Training	EBS	3/1/2016	2/28/2018
Conversion	EBS	3/1/2016	2/28/2018
Patch	BI	10/1/2015	9/30/2025
Dev	BI	10/1/2015	9/30/2025
Test	BI	10/1/2015	9/30/2025
QA	BI	4/1/2016	9/30/2025
Prod	BI	10/1/2016	9/30/2025
Prod (DR)	BI	10/1/2016	9/30/2025
Dev	Hyperion	4/1/2016	9/30/2025
Test	Hyperion	4/1/2016	9/30/2025
QA	Hyperion	10/1/2016	9/30/2025
Prod	Hyperion	2/1/2017	9/30/2025
Prod (DR)	Hyperion	2/1/2017	9/30/2025
Patch	FMW	1/1/2016	9/30/2025
Dev	FMW	1/1/2016	9/30/2025
Test	FMW	1/1/2016	9/30/2025
QA	FMW	4/1/2016	9/30/2025
Prod	FMW	10/1/2016	9/30/2025
Prod (DR)	FMW	10/1/2016	9/30/2025
Prod	UPK (Windows)	6/1/2016	9/30/2025

Audit and Compliance

Our Cloud Managed Services offering includes SSAE16/ISAE3402 and ISO27001 certifications.

For those EBS production environments identified by the County as requiring HIPAA/HITECH compliance, the CMS HIPAA Services Support Pack has been included. This Support Pack provides the tools, such as

data encryption, processes and procedures required for the infrastructure related HIPAA controls to be met.

Network

The IBM solution will start out using meet-me VPN connections from the County to the primary Cloud Data Centers and to the Disaster Recovery Cloud Data Center to expedite a fast start for development work. Prior to the Quality Assurance phase, a fully managed 10 Mbps NetBond network connection service will be implemented from the County to the primary Cloud Data Center replacing VPN connectivity. A second 10 Mbps NetBond connection from the County to disaster recovery Cloud Data Center will be implemented prior to cutting over to production. The approximate timeline follows:

- Primary site – VPN until month 8, NetBond starts month 5
- Disaster Recovery site: VPN until month 12, NetBond starts month 11

Disaster Recovery

To provide Disaster Recovery services, The IBM Raleigh and Boulder Cloud Data Centers are connected by redundant IBM owned and managed 2 Gbps point-to-point connections that are owned and managed by IBM. To provide business continuity and avoid service disruption of the physical and technical infrastructure, our Disaster Recovery solutions includes the following elements:

- Disaster Recovery has a maximum four-hour recovery time objective (RTO) and a 15-minute recovery point objective (RPO).
- After Disaster Recovery, there are full cloud infrastructure capabilities at the recovery site.
- The ability to do a single annual test is included and uses temporary virtual machines as to not impact production. IBM will analyze the results of the annual test and will take corrective action to resolve problems that resulted in a failure of the test.
- Failover site VMs can be used for non-production purposes, but must be kept at same level of patching as production since it is not re-imaged during a disaster.

Disaster recovery services will be implemented prior to the ERP production system Go-Live date.

County Technical Infrastructure Responsibilities

1. The County will provide access to current batch automation processing software for nightly batch job management.

Attachment 12 – Information Security Roles and Responsibilities

For purposes of performance of this SOW, IBM and the County will perform, per the mutually agreed upon IBM Project Schedule, the following responsibilities as indicated in the Information Security Table of Roles and Responsibilities in this Attachment.

To the extent the Terms and Conditions or Attachment D of the Agreement contradict or conflict with the roles and responsibilities in this Attachment, the Terms and Conditions and Attachment D of the Agreement will prevail.

1			
Security Policy			
a	Determine appropriate information security policy requirements based on business objectives, assessment of risk, and interpretation of legal, regulatory and contractual obligations <ul style="list-style-type: none"> ● Validate that the workstation and application security controls meet County requirements driven by security policy and risk acceptance ● Identify security requirements for new applications ● Request exceptions to the base Roles and Responsibilities as defined in this Information Security Table of Roles and Responsibilities, as needed 		R
b	Notify IBM if County information security requirements change through SOW Change Control Procedure, as defined by the Statement of Work so that parties may assess if and how to implement, including impact to cost, scope or schedule		R
c	Review the Roles and Responsibilities as defined by this Information Security Table of Roles and Responsibilities periodically but at least every 18 months		R
d	Review the Roles and Responsibilities as defined by this Information Security Table of Roles and Responsibilities with County, periodically but at least every 18 months	R	
e	Provide County with this Information Security Table of Roles and Responsibilities which communicates County and IBM responsibilities for County's application development and maintenance services and the handling of County data.	R	
f	Respond to exception or Change Requests from County and determine if such requests result in additional or modified Services or changes to information security Roles and Responsibilities, all of which will be managed through the Change Order process as defined by the Statement of Work	R	
2			
Organization of Information Security			
A	Designate a knowledgeable County focal point for information security related activities		R
B	Provide contact information for the primary contact and for an authorized secondary contact		R
C	Coordinate all information security activities with third parties other than those contracted by IBM		R
D	Designate a knowledgeable IBM focal point for information security related activities including the following: <ul style="list-style-type: none"> ● Interfacing with the County focal point on security requirements ● Implementation of security requirements for which IBM is responsible in accordance with the negotiated and agreed to Roles and Responsibilities (as defined by this Information Security Table of 	R	

Roles and Responsibilities			
E	Provide contact information for the primary contact and for an authorized secondary contact	R	
f	Coordinate security activities with third parties contracted by IBM (as defined by this Information Security Table of Roles and Responsibilities)	R	
3 Asset Management			
A	Be responsible for its information assets, including software, physical assets, and services		R
B	Identify and communicate to IBM any County data designated as confidential, business sensitive information (BSI), personal information (PI), and sensitive personal information (SPI) that IBM will have access to. Provide data for testing that does not contain PI/SPI/BSI		R
C	Be responsible for identifying, providing and funding the appropriate information security controls and communicating relevant requirements to IBM for: <ul style="list-style-type: none"> ● Data transmitted via public telecommunications facilities or services. ● Transport of confidential information, personal information, sensitive personal information and business sensitive information (e.g. encryption, transport over secure lines); and ● Storing of confidential information, personal information, sensitive personal information and business sensitive information (e.g. encryption of data on portable media or other special handling or treatment) ● Printing of County information ● Data discard or destruction requirements 		R
E	Follow approved Change Order Procedure for security related changes	R	
F	Handle information identified by the County as confidential, business sensitive, personal and sensitive personal in accordance with the following controls: <ul style="list-style-type: none"> ● On applications, protect County data by access controls as specified under IBM Responsibilities, in Area 6, 'Access Control' ● Store portable storage media containing County data as defined in this Information Security Roles and Responsibilities Table or some other specifically named document. ● When information is printed at IBM locations, keep printed information identified by County as confidential, business sensitive, personal and sensitive personal in a locked container or physically controlled area 	R	
4 Human Resources Security			
A	Address information security in the hiring, termination and personnel management processes for County personnel		R
B	Provide security awareness training to County personnel and other network or system users authorized by County		R
C	Identify and provide to IBM any County-specific personnel requirements such as background checks or others applicable by law		R
D	Identify and provide to IBM any County-specific security training required for IBM personnel		R
E	Take appropriate management action if there is a misuse of authority by any County personnel		R
F	Address County security requirements in joining and leaving the project, and in personnel management processes for IBM personnel	R	
G	Provide the current IBM security education package to IBM personnel joining the project	R	

H	Address agreed-to personnel requirements as described in this SOW	R	
I	Take appropriate management action if there is a misuse of an IBM employee's granted authorizations.	R	
S	Physical and Environmental Security		
A	Secure work areas and restrict access from general public at County sites where IBM personnel will work from		R
B	Identify and provide to IBM any County -specific information security requirements for printing, storing and transmitting County information		R
C	Define where IBM personnel will work: <ul style="list-style-type: none"> ● IBM locations or County sites ● Define remote or work at home options 		R
D	Supply and manage secure workstation image(s) including anti-virus software, firewall protection, and whole-disk encryption for workstations provided by County to IBM personnel		R
E	Respond to virus attacks and initiate corrective action on workstations provided by County to IBM personnel		R
F	Define requirements for return of assets and removal of access rights to County physical assets upon IBM personnel termination or change of employment		R
G	Provide and manage physical security of IBM owned workstations	R	
H	Perform workplace security inspections of IBM personnel at IBM sites and County sites (related to execution of this SOW) where IBM personnel will work from	R	
I	Provide security for work areas and restrict access from general public at IBM sites	R	
J	Supply and install IBM anti-virus software and upgrades for IBM supplied workstations	R	
K	Respond to virus attacks and initiate corrective action on IBM supplied workstations	R	
L	Install whole-disk encryption on IBM-supplied workstations	R	
G	Access Control		
A	Authorize, administer and manage user IDs and passwords for County managed applications, systems and subsystems		R
B	Provide unique login IDs and passwords to IBM personnel for County managed applications, systems and subsystems		R
C	Define access control requirements and process and administer logical access for network infrastructure systems and devices under County management		R
D	Define access control requirements for County applications, databases and other County software on systems across all environments (development, test, production)		R
E	Define what constitutes privileged access and access control requirements for users with privileged access to County applications, databases and other County software on systems across all environments (development, test, production)		R
F	Administer revocation of access for County managed applications, systems and subsystems as appropriate, based on validation activities and when requested by IBM		R
G	Define revocation requirements for County applications, databases and other County software on systems across all environments (development, test, production)		R
H	Be responsible for revalidating the employment status and business need for access to County applications and systems for County personnel		R
I	Be responsible for revalidating the business need for IBM personnel		R

	access to County managed applications, systems and subsystems, periodically but at least every 12 months		
j	Be responsible for implementing access changes to County managed applications, systems and subsystems based on input from IBM employment validation activities for IBM personnel		R
K	Revalidate the list of privileges associated with User ID's assigned to IBM personnel with access to County managed applications, systems and subsystems, periodically but at least every 12 months,		R
L	Revalidate shared ID's assigned to IBM with access to County applications, databases and other County software on systems across all environments (development, test, production), periodically but at least every 12 months		R
M	Validate User ID baseline inventory and share results of updates made to User IDs used by IBM personnel <ul style="list-style-type: none"> Retain evidence of completion for two revalidation cycles 		R
n	Define data protection technique requirements to be used to access County applications, databases and other County software on systems across all environments (development, test, production), such as data masking and encryption, and supply tools to meet requirements		R
O	Define requirements for secure disposal of County information from workstations or storage media		R
P	Define criteria for IBM personnel termination of access rights to County's logical assets upon conclusion of assignment or change of employment		R
Q	Log and monitor activities of IBM privileged users with access to County managed applications and systems; provide the monitoring results to IBM		R
R	Provide initial (one time) acknowledgement for shared ID's that will be used by IBM personnel		R
S	Submit request to revoke access to County systems, applications, databases and other County software when IBM personnel no longer require access	R	
T	Respond to revalidation of employment status, business need and access privileges to County systems, applications, databases, other County software assigned to IBM personnel <ul style="list-style-type: none"> Retain evidence of completion for two revalidation cycles Submit or notify County of access changes needed as a result of revalidation activities 	R	
U	Respond to revalidation of shared ID's to County systems, applications, databases, other County software assigned to IBM personnel Retain evidence of completion for two revalidation cycles Submit or notify of access changes needed as a result of revalidation activities	R	
V	Where IBM has the ability to establish password configuration settings on County applications, verify that passwords for IBM personnel working on County applications conform to the IBM standards unless County requirements are more stringent, at the discretion of IBM	R	
W	Perform a baseline inventory of User ID's to County systems, applications, databases, other County software assigned to IBM personnel and communicate User ID baseline inventory to County for validation	R	
X	Adhere to County data protection technique requirements using tools provided by County	R	
Y	Provide follow-up for issues identified via monitoring of IBM privileged User IDs when alerted by County	R	

Z	Dispose County data in all forms within IBM's control based on County's classification and direction. If County has not provided any data disposal direction, then data will be disposed of in a manner consistent with IBM internal practices for IBM confidential information	R	
7	Information Security Incident Management		
A	Provide a 24/7 contact plan for reporting security incidents <ul style="list-style-type: none"> ● Inform IBM of any application and information security incidents involving IBM personnel ● Provide a County security incident coordinator ● Make decisions on actions to resolve security incidents involving County network, systems, personnel or data, including, if appropriate, collection of evidence ● Interface, as needed, with external entities such as law enforcement, legal or regulatory agencies 		R
B	Assist County in initial security incident evaluation for security incidents involving IBM personnel that are reported by County as part of security incident management	R	
8	Compliance		
A	Identify and interpret legal, regulatory or contractual security requirements that are applicable to its business and inform IBM of any additional or changed requirements (for example data export or transfer restrictions and privacy laws)		R
B	Review periodic security reporting provided by IBM		R
C	Provide support for application assessments including County audit activities, issue management services and closure of issues after audit (Closure of issues impacting cost, schedule, quality may require that the SOW Change Control Procedure be followed)	R	
D	Provide periodic, basic security reporting as defined by IBM	R	
9	Separation of Duties		
A	Perform application separation of duties analysis and conflict resolution		R
B	Implement change management on separation of duties analysis		R
C	Perform annual review of separation of duties analysis		R
D	Authorize code promotions, data changes and database changes to production		R
E	Inform County of any role, responsibility, or access changes of IBM personnel	R	

Attachment 13 – Project Tools

Table A13-1 lists the tools that will be used by IBM for this project.

Table A13-1: Project Tools

Proposed Project Tools	Functions	Proposed Usage
IBM Program Work Center (IPWC)	Project Management, Risks, Issues, Tasks and Milestones, Document and Knowledge Management	Hosted solution for use by ERP Project Team (IBM and County) during implementation and managed services
Rational Collaborative Lifecycle Management (CLM) - Rational Team Concert, Rational Requirements Composer, rational Quality Manager	SDLC processes - requirements management, change management and test management	Hosted solution for use by ERP Project Team (IBM and County) during implementation and managed services
Rational Performance Tester	Performance testing	Desktop tool for use by IBM team to execute performance testing scripts
IBM Catapult & Ticket Analytics	Incident analysis, code analyzer, root cause analysis, ticket trends and predictive analytics	Hosted solution for use by IBM team during Managed Services

IBM will be using these preexisting and IBM proprietary tools during this engagement to perform the IBM responsibilities. These tools and associated documentation are not provided to County under the terms of this SOW and the Agreement, and remain the property of IBM.

Additionally, IBM is licensing the following tools in Table A13-2 to support the application managed services tasks.

Table A13-2: Application Managed Services Tools

Proposed Project Tools	Functions	Proposed Usage
Panaya Patch Automation	Oracle EBS patch impact analysis	SaaS solution subscription on behalf of the County for 1st year of managed services

Attachment 14 – Implementation Services Deliverables

The tables below identify the deliverable materials that IBM will produce by deployment wave.

Cross Phase Deliverables			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W0-1	Project Charter	New	Cross Phase
W0-2.1 to 2.x	Project Management Activities / Monthly Status Report	New	Cross Phase
W0-3.1 to 3.x	Change Management Activities Monthly Status Report	New	Cross Phase

Wave 1 Core Finance			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W1-4	Baseline Resource Loaded Project Schedule	New	Project Startup
W1-5	RACI-VS Matrix	New	Project Startup
W1-6	Project Kick-off	New	Project Startup
W1-7	Stakeholder Register	New	Project Startup
W1-8	Software and Hardware Installation and Technical Environments Maintenance / Configuration Management (up to system acceptance)	New	Project Startup
W1-M1	Quality Gate Check – Initiation/Concept Phase	New	Project Startup
W1-9	Organizational Change Management Plan	New	Inception
W1-10	Core Project Team Training Plan	New	Inception
W1-11	Cloud Environment Infrastructure Design and Implementation Plan	New	Inception
W1-M2	Quality Gate Check - Project Planning Phase	New	Inception
W1-12	Business Process Improvement (BPI) Recommendations	New	Elaboration
W1-13	RIDS Analysis	New	Elaboration
W1-14.1	Updated Business Requirements and Traceability Matrix	Update	Elaboration
W1-15	Core Project Team Training Report	New	Elaboration

Wave 1 Core Finance			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W1-M3	Quality Gate Check – Requirements Analysis Phase	New	Elaboration
W1-16	Fit-Gap Analysis and Findings	New	Elaboration
W1-17	Functional Specifications for Reports	New	Elaboration
W1-18	Functional Specifications for Interfaces and Systems Integration	New	Elaboration
W1-19	Functional Specifications for Data Conversion	New	Elaboration
W1-20	Functional Specification for Workflow and Enhancements	New	Elaboration
W1-21.1	Security Controls – Design Phase	New	Elaboration
W1-22	Cost-Benefit Analysis and Customizations Approval	New	Elaboration
W1-23	Final To-Be Functional Design and Business Changes	New	Elaboration
W1-24	Training Assessment Findings and Recommendations	New	Elaboration
W1-M4	Quality Gate Check – Design Phase (Functional)	New	Elaboration
W1-25	Technical Specifications for Reports	New	Construction
W1-26	Technical Specifications for Interfaces and Systems Integration	New	Construction
W1-27	Technical Specifications for Data Conversion	New	Construction
W1-28	Technical Specification for Workflow and Enhancements	New	Construction
W1-M5	Quality Gate Check – Design (Technical)	New	Construction
W1-29	Application/Workflow Configuration and Enhancements and Documentation	New	Construction
W1-30	Queries and Reports Development and Documentation	New	Construction
W1-31	Interfaces and Integration Development and Documentation	New	Construction
W1-32	Data Conversion Implementation and Reconciliation Proof Documentation	New	Construction
W1-34	System and Integration Testing (SIT) Results Documentation	New	Construction

Wave 1 Core Finance			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W1-14.2	Updated Business Requirements and Traceability Matrix	New	Construction
W1-35	User Acceptance Test (UAT) and Performance Test Plan	New	Construction
W1-36.1	Training Materials	New	Construction
W1-M6	Quality Gate Check – Development Phase	New	Construction
W1-37	User Acceptance Testing (UAT) Orientation/Training Report	New	Transition
W1-38	UAT Testing Report	New	Transition
W1-39	Performance Testing Report	New	Transition
W1-40	IT Operations Procedures and Training Report	New	Transition
W1-36.2	Final Training Materials	New	Transition
W1-M7	Quality Gate Check – Test Phase	New	Transition
W1-41	Deliver Formal End User Training Completion Report	New	Transition
W1-42	Go Live Help Desk and Field Support Operational and Logistics Plan	New	Transition
W1A-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W1A-44	Go Live Readiness Checklist Assessment	New	Transition
W1-45	Transition Plan for Production Managed Services	New	Transition
W1-46	Service Level Agreement (SLA) Definition, Measurement, Reporting and Payment Structure	New	Transition
W1A-47	Cut-Over Report (Go-Live)	New	Transition
W1-21.2	Security Controls – Implementation Phase	New	Transition
W1-48.1	Standard Operating Procedures for Operations & Support Services	New	Transition
W1A-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W1A-M9	Final Acceptance Report	New	Transition

Wave 1B Core Finance – FPD Go-Live			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W1B-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W1B-44	Go Live Readiness Checklist Assessment	New	Transition
W1B-47	Cut-Over Report (Go-Live)	Update	Transition
W1B-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W1B-M9	Final Acceptance Report	New	Transition

Wave 2 Budget Preparation			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W2-4	Baseline Resource Loaded Project Schedule	Update	Project Startup
W2-5	RACI-VS Matrix	Update	Project Startup
W2-6	Project Kick-off	Update	Project Startup
R2-07	Stakeholder Register	Update	Project Startup
W2-M1	Quality Gate Check – Initiation/Concept Phase	New	Project Startup
W2-9	Organizational Change Management Plan	Update	Inception
W2-10	Core Project Team Training Plan	Update	Inception
W2-11	Cloud Environment Infrastructure Design and Implementation Plan	Update	Inception
W2-M2	Quality Gate Check - Project Planning Phase	New	Inception
W2-12	Business Process Improvement (BPI) Recommendations	New	Elaboration
W2-13	RIDS Analysis	New	Elaboration
W2-14.1	Updated Business Requirements and Traceability Matrix	Update	Elaboration
W2-15	Core Project Team Training Report	New	Elaboration
W2-M3	Quality Gate Check – Requirements Analysis Phase	New	Elaboration
W2-16	Fit-Gap Analysis and Findings	New	Elaboration
W2-17	Functional Specifications for Reports	New	Elaboration
W2-18	Functional Specifications for Interfaces and Systems Integration	New	Elaboration
W2-19	Functional Specifications for Data Conversion	New	Elaboration
W2-20	Functional Specification for Workflow and Enhancements	New	Elaboration
W2-21.1	Security Controls – Design Phase	Update	Elaboration
W2-22	Cost-Benefit Analysis and Customizations Approval	New	Elaboration
W2-23	Final To-Be Functional Design and Business Changes	New	Elaboration
W2-24	Training Assessment Findings and Recommendations	Update	Elaboration

Wave 2 Budget Preparation			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W2-M4	Quality Gate Check – Design Phase (Functional)	New	Elaboration
W2-25	Technical Specifications for Reports	New	Construction
W2-26	Technical Specifications for Interfaces and Systems Integration	New	Construction
W2-27	Technical Specifications for Data Conversion	New	Construction
W2-28	Technical Specification for Workflow and Enhancements	New	Construction
W2-M5	Quality Gate Check – Design (Technical)	New	Construction
W2-29	Application/Workflow Configuration and Enhancements and Documentation	New	Construction
W2-30	Queries and Reports Development and Documentation	New	Construction
W2-31	Interfaces and Integration Development and Documentation	New	Construction
W2-32	Data Conversion Implementation and Reconciliation Proof Documentation	New	Construction
W2-34	System and Integration Testing (SIT) Results Documentation	New	Construction
W2-14.2	Updated Business Requirements and Traceability Matrix	Update	Construction
W2-35	User Acceptance Test (UAT) and Performance Test Plan	Update	Construction
W2-36.1	Training Materials	New	Construction
W2-M6	Quality Gate Check – Development Phase	New	Construction
W2-37	User Acceptance Testing (UAT) Orientation/Training Report	New	Transition
W2-38	UAT Testing Report	New	Transition
W2-39	Performance Testing Report	Update	Transition
W2-40	IT Operations Procedures and Training Report	Update	Transition
W2-36.2	Final Training Materials	Update	Transition
W2-M7	Quality Gate Check – Test Phase	New	Transition
W2-41	Deliver Formal End User Training Completion Report	New	Transition

Wave 2 Budget Preparation			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W2-42	Go Live Help Desk and Field Support Operational and Logistics Plan	Update	Transition
W2-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W2-44	Go Live Readiness Checklist Assessment	New	Transition
W2-45	Transition Plan for Production Managed Services	Update	Transition
W2-46	Service Level Agreement (SLA) Definition, Measurement, Reporting and Payment Structure	Update	Transition
W2-47	Cut-Over Report (Go-Live)	Update	Transition
W2-21.2	Security Controls – Implementation Phase	Update	Transition
W2-48.1	Standard Operating Procedures for Operations & Support Services	Update	Transition
W2-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W2-M9	Final Acceptance Report	New	Transition

Wave 3 Human Resources & Payroll			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W3-5	RACI-VS Matrix	Update	Project Startup
W3-6	Project Kick-off	Update	Project Startup
W3-7	Stakeholder Register	Update	Project Startup
W3-M1	Quality Gate Check – Initiation/Concept Phase	New	Project Startup
W3-9	Organizational Change Management Plan	Update	Inception
W3-10	Core Project Team Training Plan	Update	Inception
W3-11	Cloud Environment Infrastructure Design and Implementation Plan	Update	Inception
W3-M2	Quality Gate Check - Project Planning Phase	New	Inception
W3-12	Business Process Improvement (BPI) Recommendations	New	Elaboration
W3-13	RIDS Analysis	New	Elaboration
W3-14.1	Updated Business Requirements and Traceability Matrix	Update	Elaboration
W3-15	Core Project Team Training Report	New	Elaboration
W3-M3	Quality Gate Check – Requirements Analysis Phase	New	Elaboration
W3-16	Fit-Gap Analysis and Findings	New	Elaboration
W3-17	Functional Specifications for Reports	New	Elaboration
W3-18	Functional Specifications for Interfaces and Systems Integration	New	Elaboration
W3-19	Functional Specifications for Data Conversion	New	Elaboration
W3-20	Functional Specification for Workflow and Enhancements	New	Elaboration
W3-21.1	Security Controls – Design Phase	Update	Elaboration
W3-22	Cost-Benefit Analysis and Customizations Approval	New	Elaboration
W3-23	Final To-Be Functional Design and Business Changes	New	Elaboration
W3-24	Training Assessment Findings and Recommendations	Update	Elaboration
W3-M4	Quality Gate Check – Design Phase (Functional)	New	Elaboration

Wave 3 Human Resources & Payroll			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W3-25	Technical Specifications for Reports	New	Construction
W3-26	Technical Specifications for Interfaces and Systems Integration	New	Construction
W3-27	Technical Specifications for Data Conversion	New	Construction
W3-28	Technical Specification for Workflow and Enhancements	New	Construction
W3-M5	Quality Gate Check – Design (Technical)	New	Construction
W3-29	Application/Workflow Configuration and Enhancements and Documentation	New	Construction
W3-30	Queries and Reports Development and Documentation	New	Construction
W3-31	Interfaces and Integration Development and Documentation	New	Construction
W3-32	Data Conversion Implementation and Reconciliation Proof Documentation	New	Construction
W3-34	System and Integration Testing (SIT) Results Documentation	New	Construction
W3-14.2	Updated Business Requirements and Traceability Matrix	Update	Construction
W3-35	User Acceptance Test (UAT) and Performance Test Plan	Update	Construction
W3-36.1	Training Materials	New	Construction
W3-M6	Quality Gate Check – Development Phase	New	Construction
W3-37	User Acceptance Testing (UAT) Orientation/Training Report	New	Transition
W3-38	UAT Testing Report	New	Transition
W3-39	Performance Testing Report	Update	Transition
W3-40	IT Operations Procedures and Training Report	Update	Transition
W3-36.2	Final Training Materials	Update	Transition
W3-M7	Quality Gate Check – Test Phase	New	Transition
W3-41	Deliver Formal End User Training Completion Report	New	Transition
W3-42	Go Live Help Desk and Field Support Operational and Logistics Plan	Update	Transition

Wave 3 Human Resources & Payroll			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W3-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W3-44	Go Live Readiness Checklist Assessment	New	Transition
W3-45	Transition Plan for Production Managed Services	Update	Transition
W3-46	Service Level Agreement (SLA) Definition, Measurement, Reporting and Payment Structure	Update	Transition
W3-47	Cut-Over Report (Go-Live)	Update	Transition
W3-21.2	Security Controls – Implementation Phase	Update	Transition
W3-48.1	Standard Operating Procedures for Operations & Support Services	Update	Transition
W3-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W3-M9	Final Acceptance Report	New	Transition

Wave 4 Supply Chain			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W4-4	Baseline Resource Loaded Project Schedule	Update	Project Startup
W4-5	RACI-VS Matrix	Update	Project Startup
W4-6	Project Kick-off	Update	Project Startup
W4-7	Stakeholder Register	Update	Project Startup
W4-M1	Quality Gate Check – Initiation/Concept Phase	New	Project Startup
W4-9	Organizational Change Management Plan	Update	Inception
W4-10	Core Project Team Training Plan	Update	Inception
W4-11	Cloud Environment Infrastructure Design and Implementation Plan	Update	Inception
W4-M2	Quality Gate Check - Project Planning Phase	New	Inception
W4-12	Business Process Improvement (BPI) Recommendations	New	Elaboration
W4-13	RIDS Analysis	New	Elaboration
W4-14.1	Updated Business Requirements and Traceability Matrix	Update	Elaboration
W4-15	Core Project Team Training Report	New	Elaboration
W4-M3	Quality Gate Check – Requirements Analysis Phase	New	Elaboration
W4-16	Fit-Gap Analysis and Findings	New	Elaboration
W4-17	Functional Specifications for Reports	New	Elaboration
W4-18	Functional Specifications for Interfaces and Systems Integration	New	Elaboration
W4-19	Functional Specifications for Data Conversion	New	Elaboration
W4-20	Functional Specification for Workflow and Enhancements	New	Elaboration
W4-21.1	Security Controls – Design Phase	Update	Elaboration
W4-22	Cost-Benefit Analysis and Customizations Approval	New	Elaboration
W4-23	Final To-Be Functional Design and Business Changes	New	Elaboration
W4-24	Training Assessment Findings and Recommendations	Update	Elaboration

Wave 4 Supply Chain			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W4-M4	Quality Gate Check – Design Phase (Functional)	New	Elaboration
W4-25	Technical Specifications for Reports	New	Construction
W4-26	Technical Specifications for Interfaces and Systems Integration	New	Construction
W4-27	Technical Specifications for Data Conversion	New	Construction
W4-28	Technical Specification for Workflow and Enhancements	New	Construction
W4-M5	Quality Gate Check – Design (Technical)	New	Construction
W4-29	Application/Workflow Configuration and Enhancements Documentation	New	Construction
W4-30	Queries and Reports Development and Documentation	New	Construction
W4-31	Interfaces and Integration Development and Documentation	New	Construction
W4-32	Data Conversion Implementation and Reconciliation Proof Documentation	New	Construction
W4-34	System and Integration Testing (SIT) Results Documentation	New	Construction
W4-17.2	Updated Business Requirements and Traceability Matrix	Update	Construction
W4-35	User Acceptance Test (UAT) and Performance Test Plan	Update	Construction
W4-36.1	Training Materials	New	Construction
W4-M6	Quality Gate Check – Development Phase	New	Construction
W4-37	User Acceptance Testing (UAT) Orientation/Training Report	New	Transition
W4-38	UAT Testing Report	New	Transition
W4-39	Performance Testing Report	Update	Transition
W4-40	IT Operations Procedures and Training Report	Update	Transition
W4-36.2	Final Training Materials	Update	Transition
W4-M7	Quality Gate Check – Test Phase	New	Transition
W4-41	Deliver Formal End User Training Completion Report	New	Transition

Wave 4 Supply Chain			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W4-42	Go Live Help Desk and Field Support Operational and Logistics Plan	Update	Transition
W4-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W4-44	Go Live Readiness Checklist Assessment	New	Transition
W4-45	Transition Plan for Production Managed Services	Update	Transition
W4-46	Service Level Agreement (SLA) Definition, Measurement, Reporting and Payment Structure	Update	Transition
W4-47	Cut-Over Report (Go-Live)	Update	Transition
W4-21.2	Security Controls – Implementation Phase	Update	Transition
W4-48.1	Standard Operating Procedures for Operations & Support Services	Update	Transition
W4-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W4-M9	Final Acceptance Report	New	Transition

Attachment 15 – Transition to Managed Services

Transition Start Up

During this Phase IBM will assign an experienced Transition Integration Manager. The Transition Integration Manager will prepare for a Transition planning workshop to be held with the County. The workshop will result in a final Transition Plan that contains both IBM and County tasks. As part of preparing the overall Transition Plan, the following activities will be included:

- (1) **Service Delivery Management:** Focuses on governance, internal processes, plans, and policies necessary for the account team to satisfy contractual obligations and an effective client relationship throughout the life of the contract.
- (2) **Services Transition:** Includes account startup services related to the transfer of responsibility for work from the County to IBM.
- (3) **Application Transition:** Includes the movement of application support from Implementation Team to Managed Services Team.
- (4) **Financial Management:** Addresses the initial set up of the financial management and financial control processes for the Managed Services contract. These are under the responsibility of the delivery leadership team.
- (5) **Resource Management:** Addresses staffing for Application Managed Services
- (6) **Business Controls / Data Security & Privacy:** Focuses on initial set up of business control requirements to prepare for audit readiness. Addresses IBM and the County contractual DS&P requirements for Managed Services.

This will be a onetime activity prior to Wave 1 Go-Live. The Transition Plan will be updated as required before each Go-live.

b. Services Transition

Services Transition consists of a set of activities focused on transitioning the operational processes, setting up the organization governance model and Service Delivery management systems, establishing service level metrics, and communications and escalation model. This will enable IBM to:

- (1) Continue the current operations and minimize disruption in service to the County;
- (2) Initiate the implementation of IBM management disciplines to manage the scope of technical services in a consistent manner;
- (3) Identify the current support processes (if any) and any gaps;
- (4) Agree on a approach to bridge the gaps;
- (5) Introduce new methods, tools, and techniques to support the process.

IBM will manage a progression of Services Transition activities, which includes the finalizing of the operational components of the Transition Plan. Some of the elements of services transition are:

- Transition project management;
- Operational processes set-up;
- Delivery management and governance systems; and
- Service level metrics set-up.

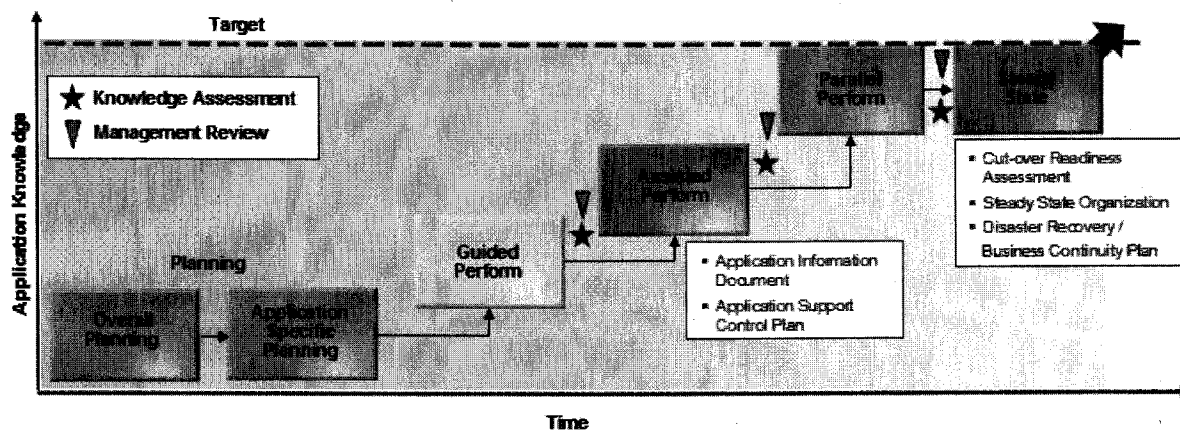
In order to set up the operational processes, existing processes and procedures will be reviewed and modified as necessary. These operational processes are documented in the Procedure Manual. Key processes to be examined include the following:

- (1) Change Management Process
- (2) Communication Plan Process
- (3) Estimating Process
- (4) Incident Management process;
- (5) Problem Management process;
- (6) Production Change Management process; and
- (7) Release Management process.
- (8) Requirements Development Process
- (9) Service Request Management process;
- (10) Service Validation & Testing Process
- (11) Supplier Management Process
- (12) Transition Planning & Support Process

Services Transition will be a onetime activity prior to Wave 1 Go-Live.

Application Transition (Knowledge Transfer)

Application Transition consists of the following six (6) key phases. This activity will be limited to the new team members who will come onboard for Managed Service. Team Members moving from Implementation Team to Managed Services Team will not require Application Transition.



The Guided Perform, Assisted Perform, and Parallel Perform phases are critical learning mechanisms to socialize and enable new IBM support personnel. IBM staff acquires the knowledge and skills required to support County applications. Application Transition (Knowledge Transfer) will happen before each Wave for the new Managed Services team member coming onboard for that Wave.

IBM Responsibilities

IBM is primarily responsible for developing and managing the Transition Plan and managing the Transition to Managed Services activities. IBM will:

- a. With the County's assistance, develop and maintain the Transition Plan and any associated documentation;
- b. Establish and implement a project management system and control structure, including processes for managing Transition activities, milestones, support resources and deliverable Materials status, issues, risks, changes and quality;
- c. Manage the Transition including planning, directing and monitoring Transition activities and assigned resources, according to the agreed schedule and processes;
- d. Identify deviations from the Transition Plan and any business and/or technical issues that may impact the Transition, and address and resolve such issues pertaining to IBM Support Personnel or IBM responsibilities;
- e. Develop the Transition meetings (i.e., planning, review, status) schedule with the County, including the frequency and location for such meetings;
- f. Coordinate and conduct Transition meetings in accordance with the established schedule;
- g. Provide to the County weekly written status report(s) which include information such as schedule status, Transition progress, issue identification and related action plans.

County Responsibilities

The County will:

- a. Serve as the interface between the Transition team and the County's employees participating in the Transition to define the County's business and technical requirements for Transition and to confirm that the Transition Plan meets such requirements;
- b. The County management will act as a central communication and policy setting liaison to the business area management and end user communities across the organization.
- c. The County management will communicate the necessary contract and policy requirements as needed to the business area management and end user communities to ensure a common understanding of the new roles and responsibilities resulting from the SOW.
- d. The County management team will develop and implement, in conjunction with IBM, a communication plan to provide the technical, procedural and cultural change that will need to occur during the Transition Phase.
- e. County business resources will be involved in the identification of reporting requirements as well as confirm current reporting processes
- f. County management will support the new or changed business area management and user community roles and responsibilities that result from IBM's implementation of new application Managed Services and project management procedures;
- g. Assist IBM in the development and maintenance of the Transition Plan and any associated documentation;
- h. Review and approve the Transition deliverable Materials;

ide IBM's employees with access (i.e., physical and logical) to the facilities and systems affected as a result of the Transition or required by IBM to provide the Services;

- j. Assign the County's resources and manage the completion of the County -owned Transition activities according to the agreed schedule and processes;
- k. Obtain and provide current information, data and documentation related to the Transition (for example, third party supplier and vendor information, facility data, inventory data, existing operational processes and procedures), decisions and approvals, within the agreed time period, which will be within three Business Days of IBM's request, unless otherwise mutually agreed;
- l. Assist IBM in identifying, addressing and resolving deviations from the Transition Plan and any business and/or technical issues that may impact the Transition and address and resolve such issues pertaining to County staff or County responsibilities;
- m. Develop the Transition meetings (i.e., planning, review and status) schedule with IBM, including the frequency and location, and attend such meetings in accordance with the established schedule;
- n. Provide access to the tools and systems required for IBM to delivery services;

Exhibit 2A -3 Functional and Technical Requirements in Scope

Available Response Codes	Requirements Progress
242	S
9	MS
37	MS
38	MS
39	MS
40	MS
41	MS
42	MS
43	MS
44	MS
45	MS
46	MS
47	MS
48	MS
49	MS
50	MS
51	MS
52	MS
53	MS
54	MS
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86	MS
87	MS
88	MS
89	MS
90	MS
91	MS
92	MS
93	MS
94	MS
95	MS
96	MS
97	MS
98	MS
99	MS
100	MS

Available Response Codes	Functional Requirements Progress
F	Completed with a solution that meets the requirements of the user story.
CU	Completed with a solution that meets the requirements of the user story, but with some caveats.
SR	Completed with a solution that meets the requirements of the user story, but with some significant caveats.
CR	Completed with a solution that meets the requirements of the user story, but with some critical caveats.
TV	Completed with a solution that meets the requirements of the user story, but with some very significant caveats.
NR	Not included in this proposal.
MS	Not included in this proposal.
242	Not included in this proposal.

Available Response Codes	Technical Requirements Progress
F	Completed with a solution that meets the requirements of the user story.
CU	Completed with a solution that meets the requirements of the user story, but with some caveats.
SR	Completed with a solution that meets the requirements of the user story, but with some significant caveats.
CR	Completed with a solution that meets the requirements of the user story, but with some critical caveats.
TV	Completed with a solution that meets the requirements of the user story, but with some very significant caveats.
NR	Not included in this proposal.
MS	Not included in this proposal.
242	Not included in this proposal.

Req ID	Req Description	Req Type	Req Category	Req Sub-Category	Req Priority	Req Status	Req Progress	Req Comments
APP-SEC-1	The system will provide security to control user access at multiple levels including:	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-2	overall system	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-3	specific functions (e.g. inquiry updates)	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-4	system modules	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-5	specific organization	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-6	adjustment type	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-7	record	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-8	data field	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-9	integrated application security will encompass the following:	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-10	application access	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-11	access to function	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-12	table level access	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-13	row level access	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-14	field level access	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-15	System uses the 6 leading security standards	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-16	HIPAA, MITCHELL will take appropriate measures (must be capable of signing a Business Associates Agreement)	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-17	IRS Publication 1075	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-18	NIST 800-53 as revised	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-19	ISO 27001/27002 as revised	Application Security	Application Security	Application Security	High	Completed	F	
APP-SEC-20	Symmetrical AES-256	Application Security	Application Security	Application Security	High	Completed	F	

Exhibit 2A -3 Functional and Technical Requirements in Scope

APP-SEC	Asymmetrical RSA 2048	Application Security	App Action Security (Privilege Capability)	N	N	Optional ASD	Optional ASD	F	F	Advanced Security	There will be included with Oracle's advanced security
APP-SEC	21	The system will identify when an employee security profile is no longer in the employee master file	Application Security	CU	CU	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	22	OWASP Top 10 control	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	23	The system will allow the systems administrator to grant permission to other users to control user access within the own organization	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	24	The system will provide the capability to define access by groups of users	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	25	The system will provide the capability to define update capabilities by groups of users	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	26	The system will provide the capability to define access by position type	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	27	The system will provide capability to define update capabilities by position type	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	28	The system will allow the systems administrator to limit access to combinations of data fields	Application Security	F	F	GL	GL	F	F	GL	Work low mod/can
APP-SEC	29	The system will provide access to security reports from a single entry point for access by only authorized users	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	30	The system can be integrated with Microsoft Active Directory	Application Security	F	F	OD	OD	F	F	OD	Work low mod/can
APP-SEC	31	The system prohibits concurrent logon IDs in the same environment	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	32	The system supports multiple sessions within a given login ID	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	33	The system supports to remote log off (administrator level)	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	34	Visible links of access within the application for group segmentation	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	35	User access times out after a configured time of inactivity	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	36	Forces all logins to be encrypted through an approved medium (e.g. S/M/TS)	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	37	The system will identify when an employee security profile is no longer in the employee master file	Application Security	CU	CU	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	38	The system will identify when an employee security profile is no longer in the employee master file	Application Security	CU	CU	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	39	The system will allow the creation of user security profiles to control the granting of electronic approval abilities	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	40	The system will have the capability to deactivate the user access profile for a specific period of time	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	41	The system will have the capability to reactivate the user access profile for a specific period of time	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	42	The system provides audit trail to record to show changes by user	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	43	The system provides default proceeding options throughout an organization	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	44	The system supports generating a report that lists users privileges by user and company	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	45	The system supports options to restrict query answers based on security	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	46	The system provides options to restrict query answers based on security	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	47	The system provides options to restrict query answers based on security	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	48	The system will provide the ability to query the audit log information such as type of event, event date, and user information	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	49	The system will provide the ability to query the audit log information such as type of event, event date, and user information	Application Security	F	F	ERS	ERS	F	F	ERS	Work low mod/can
APP-SEC	50	The system will provide for use of standard Public Key Infrastructure (PKI) in controlling access to sensitive data	Application Security	N	N	Optional ASD	Optional ASD	F	F	Optional ASD	Work low mod/can

Exhibit ZA -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Control	Control Type	Control Point	Control Method	Control Frequency	Control Location	Control Responsibility	Control Effectiveness
APP-ARC-SEC	The system will prevent an employee security profile from being added without validation that the user is an employee (validate with a employees master file)	Application Security	F	F	EBS							S
APP-ARC-SEC	The system will provide the capability to add a security profile for an employee not yet on the employee master file	Application Security	F	F	EBS							S
APP-ARC-SEC	The system will provide the capability for all of the above for non-employees	Application Security	F	F	EBS							S
PWF-REV	The application will provide support capability to define workflow processes, business rules including approval levels, using a graphical definition facility	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports the definition of routing or distribution lists for turn-around documents and forms.	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports employees that are assigned to more than one manager	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports routing when an employee reports to a manager that is not in the same organization as the employee.	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	This routing list definition supports "N_Join", "Exit", "Lc", if transaction equals "promotion" and delay change is greater than 90 days	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports documents that can be sent electronically according to defined routing lists	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to customize workflow routes	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to route documents to individuals	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to route documents to groups of individuals	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The application will provide an integrated facility to manage routing lists, reports, and other financial documents for on-line approval or subsequent processing based on user-defined criteria	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to notify the appropriate personnel when any record passes through a level of approval	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to notify the appropriate personnel when any record passes through a level of rejection	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability for unique approval options depending on department or region	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability for unique approval options based on a transaction's expenditure distribution and by an individual user preparing the transaction	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability to recognize appropriate workflow approval routes in order to maintain the sum of the distributions in order to recognize department defined approval at the document level	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability for special approval routing based on business rules and/or grants management or other regulatory requirements	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability for flexible approval workflow for research related transactions based on criteria defined at the document level	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the ability to "assign" multiple approvers to a single workflow to allow for departmental flexibility	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to support multiple approvals based on PD by business rules	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to establish electronic attachments for on-line reviews of selected records and their attachments	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to establish electronic workflows for on-line approval of groups of selected records and their attachments	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to establish electronic workflows for on-line rejection of sub-sets of groups of selected records and their attachments	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will have the capability for each approver to assign alternate approvers in the approval routing	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will have the capability for the system to record and track the status of each approval	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will have the capability to notify the approver of the actions taken by the alternate approver	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports flags that can be set with each "Approval" field to identify who is authorized to approve change in field	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to establish electronic workflows for on-line rejection of groups of selected records and their attachments	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will provide the capability to establish electronic workflows for on-line approval of sub-sets of groups of selected records and their attachments	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will have the capability for each approver to assign alternate approvers in the approval routing	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system will have the capability to notify the approver of the actions taken by the alternate approver	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system supports flags that can be set with each "Approval" field to identify who is authorized to approve change in field	Process Workflow Capabilities	F	F	WF							WF
PWF-RTG	The system workflow can be templated for repeat usage.	Process Workflow Capabilities	F	F	WF							WF

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Access	Reporting	Structure	Priority	Category	Sub-category	Impact	Notes
RPT.ACC	118 The system will have the ability to allow authorized users to run reports via the internet	Access	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	119 The system will provide the capability to generate specific reports reports via the internet	Reporting	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	120 The system will have the capability to automatically distribute reports electronically to a pre-determined list of users	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	121 The system will allow authorized users to maintain the pre-determined list of users to receive reports	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	122 The system will allow authorized users to delete one or multiple users from the pre-determined list of users for each report	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	123 The system will provide the ability to electronically notify users of report distribution	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	124 The system will allow authorized users to maintain a pre-determined list of users to receive notification that a report has been produced	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	125 The system will allow authorized users to delete one or multiple users from the pre-determined list of users to receive notification that a report has been produced	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	126 The system will provide automated system assurance (realtime) data integrity verification reports that are included as part of report viewing tool	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	127 The system will have the capability to interface with an external analytical processing system	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
RPT.DST	128 The system will have the capability to interface with online analytical processing system	Distribution and Scheduling	Reporting		F	F	ESBORREE	ESBORREE	
GLGEN	129 Supports the following base of accounting at the same time:	General	General Ledger		F	F	GL	GL	
GLGEN	130 Cash	General	General Ledger		F	F	GL	GL	
GLGEN	131 Accounts Payable	General	General Ledger		F	F	GL	GL	
GLGEN	132 Bill Backed	General	General Ledger		F	F	GL	GL	
GLGEN	133 All transactions are balanced (Debits = Credits)	General	General Ledger		F	F	GL	GL	
GLGEN	134 The software must allow for multiple months and fiscal years to remain open simultaneously	General	General Ledger		F	F	GL	GL	
GLGEN	135 The system must support multiple currencies	General	General Ledger		F	F	GL	GL	
GLGEN	136 Supports multiple accounting dates simultaneously	General	General Ledger		F	F	GL	GL	
GLGEN	137 Maintains records of chart of accounts changes and reason for change	General	General Ledger		F	F	GL	GL	
GLGEN	138 All account changes are effective 01/01	General	General Ledger		F	F	GL	GL	
GLSTR.FUND	139 Organizational elements within the chart of accounts supports the following reporting structures:	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	140 Business Unit or Company (with separate accounting)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	141 Primary government (highest level of financial reporting)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	142 Government Type	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	143 Business Type	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	144 Component Unit	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	145 Subcomponent Unit	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	146 System supports reorganizations	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	147 Maintains history of changes to accounts to enable as-of-date reporting	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	148 Replaces and restores history after a re-organization (as of date reporting)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	149 Supports multiple organizational structures concurrently for reporting purposes	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	150 System allows for reporting on part data using current organizational structures	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	151 Organizational elements within the chart of accounts supports the following organizational structures:	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	152 Department	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	153 Division	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	154 Cost Center	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	155 Organizational units can be grouped or ungrouped for reporting purposes	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	156 System uses chart of account hierarchies	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	157 System permits the length of each chart of accounts segment data field to be at least 10 alpha numeric characters (Please list indicate any limits in the comments field)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	158 A long description of at least 155 alphanumeric characters can be assigned to each account (Please list any limitations in the comments field)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	159 A short description of at least 50 alphanumeric characters can be assigned to each account for reporting purposes. (Please list any limitations in the comments field)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	160 Designates each general ledger account by the following account types:	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	161 Secondary (Non-Posting, No-Log)	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	162 Asset	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	163 Liability	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	164 Fund Equity	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	165 Revenue	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	166 Expense	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	167 Clearing/holding	Structure	General Ledger		F	F	GL	GL	
GLSTR.FUND	168 Other Transferring Sources	Structure	General Ledger		F	F	GL	GL	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	Notes
GLSTR.FUND.169	Statistical (User defined non financial). Please indicate any limitation	General Ledger	F	GL	GL	
GLSTR.FUND.170	System contains the following transactions for accounts:	General Ledger	F	GL	GL	
GLSTR.FUND.171	Inactive (not available for posting)	General Ledger	F	GL	GL	
GLSTR.FUND.172	System does not require each chart of account combination to be pre-defined	General Ledger	F	GL	GL	
GLSTR.FUND.173	User defined fields are available for posting in the chart of account	General Ledger	F	GL	GL	
GLSTR.FUND.174	Budget accounts are derived from the general ledger accounts	General Ledger	F	GL	GL	
GLSTR.FUND.175	Revenue and expenditure accounts tie to budget control	General Ledger	F	GL	GL	
GLSTR.FUND.176	Cost accounts are derived from the general ledger accounts	General Ledger	F	GL	GL	
GLSTR.FUND.177	System support an unlimited number of funds (provide limits in general column)	General Ledger	F	GL	GL	
GLSTR.FUND.178	System support the following categories and types:	General Ledger	F	GL	GL	
GLSTR.FUND.179	General fund	General Ledger	F	GL	GL	
GLSTR.FUND.180	Special revenue funds	General Ledger	F	GL	GL	
GLSTR.FUND.181	Capital projects funds	General Ledger	F	GL	GL	
GLSTR.FUND.182	Enterprise funds	General Ledger	F	GL	GL	
GLSTR.FUND.183	Proprietary funds	General Ledger	F	GL	GL	
GLSTR.FUND.184	Trust funds	General Ledger	F	GL	GL	
GLSTR.FUND.185	Investment trust funds	General Ledger	F	GL	GL	
GLSTR.FUND.186	Agency funds	General Ledger	F	GL	GL	
GLSTR.FUND.187	Funds are maintained separately by organization	General Ledger	F	GL	GL	
GLSTR.FUND.188	Store the following non financial data for each fund:	General Ledger	F	GL	GL	
GLSTR.FUND.189	Date established	General Ledger	F	GL	GL	
GLSTR.FUND.190	Acceptable use	General Ledger	F	GL	GL	
GLSTR.FUND.191	Description	General Ledger	F	GL	GL	
GLTRK.FM.200	System provides multiple levels of controls on the following types of budget fund	Management	F	GL	GL	
GLTRK.FM.201	Fund	Management	F	GL	GL	
GLTRK.FM.202	Department	Management	F	GL	GL	
GLTRK.FM.203	Division (should mirror the organizational structure in the general ledger)	Management	F	GL	GL	
GLTRK.FM.204	Program	Management	F	GL	GL	
GLTRK.FM.205	Project	Management	F	GL	GL	
GLTRK.FM.206	Grant	Management	F	GL	GL	
GLTRK.FM.207	Account	Management	F	GL	GL	
GLTRK.FM.208	Sub-account at department level if defined	Management	F	GL	GL	
GLTRK.FM.209	System allows budget to be allocated out to defined periods within the year:	Management	F	GL	GL	
GLTRK.FM.210	Month	Management	F	GL	GL	
GLTRK.FM.211	Quarter	Management	F	GL	GL	
GLTRK.FM.212	Semi-Annual	Management	F	GL	GL	
GLTRK.FM.213	Percentage	Management	F	GL	GL	
GLTRK.FM.214	Seasonally by month, quarter or user defined period	Management	F	GL	GL	
GLTRK.FM.215	Based on seasonal trends	Management	F	GL	GL	
GLTRK.FM.216	Predefined budget limit can be calculated as a percentage of previous year reported budget	Management	F	GL	GL	
GLTRK.FM.217	Previous year recommended budget	Management	F	GL	GL	
GLTRK.FM.218	Previous year adopted budget	Management	F	GL	GL	
GLTRK.FM.219	Previous year adjusted budget	Management	F	GL	GL	
GLTRK.FM.220	Projected actual expenses	Management	F	GL	GL	
GLTRK.FM.221	System provides the ability to carry forward available appropriations (and encumbrances) to the next budget period based on the funding source. Clarify within the current budget year include:	Management	F	GL	GL	
GLTRK.FM.222	Hard prevents transactions from processing without override approval	Management	F	GL	GL	
GLTRK.FM.223	Soft provides warning message but allows transactions to process without warning	Management	F	GL	GL	
GLTRK.FM.224	No control allows transaction to process without warning	Management	F	GL	GL	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Sub-Category	Priority	Impact	Frequency	Complexity	Effort	Dependencies	Notes
227	Ability to ensure that all transactions using or affecting budget are processed in the correct order and that budget data based on established budgetary controls.	General Ledger	Journal Entry	F	F	GL				
228	Ability to accommodate pre-encumbrance control based upon established budgetary controls.	General Ledger	Journal Entry	F	F	GL				
229	Ability to accommodate encumbrance control.	General Ledger	Journal Entry	F	F	GL				
230	Ability to validate pre-encumbrances encumbrances and encumbrances against the appropriate budget.	General Ledger	Journal Entry	F	F	GL				
231	Ability to set up "unencumbered" or "closed" budgets.	General Ledger	Journal Entry	F	F	GL				
232	Ability to override budget control within user defined security profiles.	General Ledger	Journal Entry	F	F	GL				
233	System includes available budget as "Current Budget" and "Encumbrance" balances.	General Ledger	Journal Entry	F	F	GL				
234	The system has on-line edit of valid account numbers during input and update of the information.	General Ledger	Journal Entry	F	F	GL				
235	System supports posting to prior periods when those periods are open.	General Ledger	Journal Entry	F	F	GL				
236	Multiple fiscal years can be open simultaneously.	General Ledger	Journal Entry	F	F	GL				
237	System allows posting of transactions for multiple fiscal years at the same time.	General Ledger	Journal Entry	F	F	GL				
238	System allows posting of transactions for multiple fiscal years at the same time in outside fiscal years the detail transactions are maintained for each year.	General Ledger	Journal Entry	F	F	GL				
239	System allows journal entries to be entered by departments and routed through workflow for approval.	General Ledger	Journal Entry	F	F	GL				
240	Journal entries are posted.	General Ledger	Journal Entry	F	F	GL				
241	In real time	General Ledger	Journal Entry	F	F	GL				
242	Batch	General Ledger	Journal Entry	F	F	GL				
243	Automated date	General Ledger	Journal Entry	F	F	GL				
244	Users are able to flag journal entry as part of batch when entering the journal entry.	General Ledger	Journal Entry	F	F	GL				
245	System assigns journal entry numbers.	General Ledger	Journal Entry	F	F	GL				
246	Automatically	General Ledger	Journal Entry	F	F	GL				
247	Automatically with profit	General Ledger	Journal Entry	F	F	GL				
248	System does not allow duplicate journal entry numbers	General Ledger	Journal Entry	F	F	GL				
249	System allows for default data within journal fields (e.g. year)	General Ledger	Journal Entry	F	F	GL				
250	System supports multiple line items for journal entries (phase indicate any limitations in the notes column)	General Ledger	Journal Entry	F	F	GL				
251	Journal entries record the source of the transaction (e.g. manual entry or automatic entry from another system)	General Ledger	Journal Entry	F	F	GL				
252	System allows for manual entry or automatic entry from an auxiliary (outside system)	General Ledger	Journal Entry	F	F	GL				
253	Journal transactions can be entered and scheduled using effective dates (e.g. posting does not occur until effective date)	General Ledger	Journal Entry	F	F	GL				
254	Users can enter journal entries as of a certain date (i.e. to allow back-dating)	General Ledger	Journal Entry	F	F	GL				
255	Users can look up on the screen as a reference during journal entry.	General Ledger	Journal Entry	F	F	GL				
256	All chart of account segments	General Ledger	Journal Entry	F	F	GL				
257	Budgetary accounts	General Ledger	Journal Entry	F	F	GL				
258	Project accounts	General Ledger	Journal Entry	F	F	GL				
259	Grant accounts	General Ledger	Journal Entry	F	F	GL				
260	Journal entries are validated (immediately) on each segment.	General Ledger	Journal Entry	F	F	GL				
261	Chart of account structure	General Ledger	Journal Entry	F	F	GL				
262	Pre-defined acceptable values for each field	General Ledger	Journal Entry	F	F	GL				
263	Available funds (Budget control)	General Ledger	Journal Entry	F	F	GL				
264	Transfer in/out of entities (balance)	General Ledger	Journal Entry	F	F	GL				
265	Transfers in/out are balanced	General Ledger	Journal Entry	F	F	GL				
266	Due to date from accounts are balanced	General Ledger	Journal Entry	F	F	GL				
267	Account coding errors in journal entry can be corrected by	General Ledger	Journal Entry	F	F	GL				
268	Approved journal entries can be deleted by reviewer or approve with notification sent to inhibitor.	General Ledger	Journal Entry	F	F	GL				
269	Journal entries are approved in workflow prior to posting.	General Ledger	Journal Entry	F	F	GL				

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Frequency	Complexity	Dependencies	Notes
GLTRKJE 270	Imported transactions from desktop applications are validated using the same business rules as transactions made in the system	General Ledger	Journal Entry	F	F	GL		Validation by GL report program (out of the box) is available for Oracle GL. The required is to have one function/operation implemented in the application to be able to read and by Data Load tool of WIP ACD. However, we need the business rules and data validation implemented in the application.
GLTRKJE 271	System allows creation of a journal entry from previously entered journal entry format (copy journal)	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 272	Line item	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 273	System allows users to reverse journal entries with proper security and approvals at any time during the fiscal year.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 274	System allows users to reverse a group of journal entry with proper security and approvals.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 275	System allows users to reverse a journal entry with "reversal" date field and prevents transaction from posting until a "reversal" field is completed.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 276	System requires all journal entries: business prior to posting. Ability for one department to process a payment for other departments (with multiple revenue and expense codes) without routing a check.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 277	Unrouted transfers are approved through workflow (i.e. fund or department cannot be changed without proper approval)	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 278	System provides templates and notifications for recording journal entries with the same dollar values.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 281	With the same dollar values	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 282	With varying dollar amounts	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 283	That occur at regular frequency (can set start and stop dates)	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 284	System supports batch descriptions with sub-totals.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 285	Users can attach files for documentation to each line in the journal entry.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 286	Users can attach files for documentation to each line in the journal entry.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 287	System requires attached documentation for different types of entries.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 288	Users can create and process transactions against statistical and memo accounts in addition to financial accounts.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 289	Users can save journal entries that have not yet been posted or without posting.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 290	System allows users to view impact of pending journal entries.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 291	Ability to prevent transactions from being processed in closed year months or year and to be processed in future years.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJE 292	System restricts systems that user can post journal entries to.	General Ledger	Journal Entry	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 293	System allows more than 13 accounting periods (please specify)	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 294	All accounting periods can be open at the same time.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 295	Supports year-end processing at any point in time as well as multiple times after the end of the fiscal year (i.e. doesn't have to occur on last day or on any particular day).	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 296	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 297	System rolls encumbrances to next year by.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 298	All encumbrances	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 299	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 300	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 301	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 302	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 303	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 304	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 305	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 306	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 307	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 308	System rolls remaining budget associated with encumbrances to next fiscal year by.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 309	All encumbrances	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 310	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 311	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 312	System allows users to view impact of pending journal entries.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 313	System closes at end of period by.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.
GLTRKJLS 314	Component Unit.	General Ledger	Closing	F	F	GL		REQ: System provides one and no restrictions for copying journal entries with varying debit or credits.

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Sub-Category	Priority	Impact	Frequency	Complexity	Dependencies	Notes
GL TRK GLS 315	End of Department	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 316	Cost Center	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 317	Account	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 318	Project	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 319	Organization (e.g. department)	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 320	System accommodates both soft and hard closes	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 321	System maintains multiple fiscal years concurrently which allows users to post transactions for a new fiscal year prior to closing the previous year	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 322	System allows each department to allocate direct and indirect costs differently (with approval)	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 323	System allows allocation schedules prior to the financial closing for the period	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 324	System allows changing allocation schedule at any time (with approval) during year	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 325	Automatically prepare a journal entry from each allocation	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 326	Import allocation schedule(s) from Excel and automatically create journal entry	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 327	System creates reversing entry for changes to an allocation schedule	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 328	System stores workload statistics or other metrics as method of distributing costs	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 329	System selectively applies overhead cost based on chart of accounts segment e.g. overhead cost applied to interagency financial account segment but not grant funded activities	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 330	System provides online inquiry into all transactions and reports	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 331	Budget availability	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 332	Journal entry status	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 333	System produces all relevant GASB statements and reports required to produce the County Comprehensive Annual Financial Report (CAFR)	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 334	Produce the following financial reports on a consolidated or non-consolidated basis:	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 335	Budget variance report	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 336	Detail of summary level	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 337	Total balance by:	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 338	Department	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 339	Fund	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 340	Project	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 341	Cash flow	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 342	Fund balance report	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 343	Balance sheet	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 344	Statement of Revenues and Expenditures (i.e. Income Statement)	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 345	Account balances	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 346	Cash balances	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 347	System produces the following CAFR reports:	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 348	Government-Wide Statements:	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 349	Statement of Net Position	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 350	Statement of Activities	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 351	CAFR reports compare most recent and prior fiscal year activity with variances (comparative reports)	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 352	Fund Financial Statements:	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 353	Balance Sheet - Governmental Funds	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 354	Reconciliation of Balance Sheet - Governmental Funds to Statement of Net Assets	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 355	Statement of Revenues - Expenditures and Changes in Fund Balances - Governmental Funds	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 356	System accommodates both soft and hard closes	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	
GL TRK GLS 357	System maintains multiple fiscal years concurrently which allows users to post transactions for a new fiscal year prior to closing the previous year	GL TRK GLS	GL TRK GLS	GL	GL	GL	GL	GL	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Category	Priority	Impact	Source	Notes
414	AR DEF REC	Fee schedules	Accounts Receivable	F	AR	AR	
415	AR DEF REC	Penalties	Accounts Receivable	F	AR	AR	
416	AR DEF REC	Interest	Accounts Receivable	F	AR	AR	
417	AR DEF INV	Removes charges on customer invoice	Accounts Receivable	F	AR	AR	
418	AR DEF INV	Generates an invoice with sufficient and file text row to adequately describe services provided (continued invoice process)	Accounts Receivable	F	AR	AR	
419	AR DEF INV	Invoice supports multiple accounting distributions based on a specific invoice number (e.g. percentage)	Accounts Receivable	F	AR	AR	
420	AR DEF INV	Assigns invoice numbers	Accounts Receivable	F	AR	AR	
421	AR DEF INV	Automatic ly	Accounts Receivable	F	AR	AR	
422	AR DEF INV	Alpha numeric numbering schemes	Accounts Receivable	F	AR	AR	
423	AR DEF INV	Accounts receivable	Accounts Receivable	F	AR	AR	
424	AR DEF INV	Overlapping invoices	Accounts Receivable	F	AR	AR	
425	AR DEF INV	Recurring invoices (regular invoices to occur at set dates or duration)	Accounts Receivable	F	AR	AR	
426	AR DEF INV	Recurring invoices (regular invoices to occur at set dates or duration)	Accounts Receivable	F	AR	AR	
427	AR DEF INV	Invoices scheduled at set dates for same amount	Accounts Receivable	F	AR	AR	
428	AR DEF INV	Invoices scheduled at set dates for different amounts	Accounts Receivable	F	AR	AR	
429	AR DEF INV	Invoices that are not scheduled for same amount	Accounts Receivable	F	AR	AR	
430	AR DEF INV	Invoices that are not scheduled and are for different amounts	Accounts Receivable	F	AR	AR	
431	AR DEF INV	System allows invoices to be categorized by type (example: permit, building rent, etc.)	Accounts Receivable	F	AR	AR	
432	AR DEF INV	A low user defined default amount distribution for each type of invoice (building rent, etc.)	Accounts Receivable	F	AR	AR	
433	AR DEF INV	System allows invoices to be categorized by type (example: permit, building rent, etc.)	Accounts Receivable	F	AR	AR	
434	AR DEF INV	A low user defined default amount distribution for each type of invoice (building rent, etc.)	Accounts Receivable	F	AR	AR	
435	AR DEF INV	Saves templates for generating invoices (different template for each Accounts Receivable type)	Accounts Receivable	F	AR	AR	
436	AR DEF INV	Identifies invoice as final billing (grants/projects)	Accounts Receivable	F	AR	AR	
437	AR DEF INV	Defines minimum charge over the amount recorded in the invoice (e.g. 10% over the amount recorded in the invoice)	Accounts Receivable	F	AR	AR	
438	AR DEF INV	Generates consolidated statements for customers with multiple accounts (option to or not to generate consolidated statements)	Accounts Receivable	F	AR	AR	
439	AR DEF INV	Automatically calculates interest based upon system defined rates or criteria and creates related journal entry	Accounts Receivable	F	AR	AR	
440	AR DEF INV	Interest is calculated and applied	Accounts Receivable	F	AR	AR	
441	AR DEF INV	Monthly	Accounts Receivable	F	AR	AR	
442	AR DEF INV	Quarterly	Accounts Receivable	F	AR	AR	
443	AR DEF INV	Annually	Accounts Receivable	F	AR	AR	
444	AR DEF INV	Compounded	Accounts Receivable	F	AR	AR	
445	AR DEF INV	Not compounded (on original charge only)	Accounts Receivable	F	AR	AR	
446	AR DEF INV	System automatically applies penalties based upon system-defined rates or criteria	Accounts Receivable	F	AR	AR	
447	AR DEF INV	As flat dollar amounts	Accounts Receivable	F	AR	AR	
448	AR DEF INV	As percentage of original bill	Accounts Receivable	F	AR	AR	
449	AR DEF INV	Based on penalty schedule (0 after 30 days- 50% after 60 days)	Accounts Receivable	F	AR	AR	
450	AR DEF INV	System permits users to establish unique installment repayment schedules for an account	Accounts Receivable	F	AR	AR	
451	AR DEF INV	Produce recon type statements showing beginning balance, charges, credits and payments and a new balance.	Accounts Receivable	F	AR	AR	
452	AR DEF INV	Generates a duplicate bill and/or statement upon request	Accounts Receivable	F	AR	AR	
453	AR DEF INV	App for payments according to the following: Accounts Receivable	Accounts Receivable	F	AR	AR	
454	AR DEF INV	Overpayments against individual line items on a receivable	Accounts Receivable	F	AR	AR	
455	AR DEF INV	Multiple payments can attach to one or many invoices	Accounts Receivable	F	AR	AR	
456	AR DEF INV	User defined criteria	Accounts Receivable	F	AR	AR	
457	AR DEF INV	System applies credit memos	Accounts Receivable	F	AR	AR	
458	AR DEF INV	App for specific credit memos to specific invoices and invoice line items	Accounts Receivable	F	AR	AR	
459	AR DEF INV	System multiple alerting messages to templates by Accounts Receivable type	Accounts Receivable	F	AR	AR	
460	AR DEF INV	Automatically generate delinquent letters based on passage of time (example: 30, 60, 90 days) by Accounts Receivable type	Accounts Receivable	F	AR	AR	
461	AR DEF INV	Automatically generates a "follow up" invoice for past due customers based on user defined date range or other user defined criteria (and by Accounts Receivable type)	Accounts Receivable	F	AR	AR	
462	AR DEF INV	System permits users to set due dates with workflow approval	Accounts Receivable	F	AR	AR	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	Notes
AP.MAS.VEN.529	Duplicate bill #s	Accounts Payable	F	F	AP	
AP.MAS.VEN.530	Vendor address	Accounts Payable	F	F	AP	
AP.MAS.VEN.531	System allows vendor to set up alternate vendor for payment (example: payment received by bank rather than vendor)	Accounts Payable	F	F	AP	
AP.MAS.VEN.532	System allows placing all payments to vendor on hold	Accounts Payable	F	F	AP	
AP.MAS.VEN.533	System allows placing hold on all vendor without affecting parent vendor	Accounts Payable	F	F	AP	
AP.MAS.VEN.534	Child records are also placed on hold when parent records are	Accounts Payable	F	F	AP	
AP.MAS.VEN.535	System allows attachment to invoices (example: attachment on attorney payment)	Accounts Payable	F	F	AP	
AP.MAS.VEN.536	Vendor file stores vendor payment preference (e.g. ACH check etc.)	Accounts Payable	F	F	AP	
AP.MAS.VEN.537	File stores terms and conditions that are applied to invoices	Accounts Payable	F	F	AP	
AP.MAS.VEN.538	Discounts	Accounts Payable	F	F	AP	
AP.MAS.VEN.539	Payment terms (days to pay)	Accounts Payable	F	F	AP	
AP.MAS.VEN.540	Vendor payment terms for vendor	Accounts Payable	F	F	AP	
AP.MAS.VEN.541	System tracks 180 day expiring of vendor payment	Accounts Payable	F	F	AP	
AP.MAS.VEN.542	System tracks 180 day expiring of vendor payment	Accounts Payable	F	F	AP	
AP.MAS.VEN.543	This system will record banking information for reimbursement direct deposit. Bank information must be able to be entered directly during vendor set up and optionally from HR/Payroll	Accounts Payable	F	F	AP	
AP.MAS.VEN.544	Commodity codes are assigned to vendor records	Accounts Payable	F	F	AP	
AP.MAS.VEN.545	Maintains history of vendor record changes	Accounts Payable	F	F	AP	
AP.MAS.VEN.546	Employee Reimbursements FOLLOW UP	Accounts Payable	F	F	AP	
AP.MAS.VEN.547	Supports a way matching (purchase order invoice receiving transaction inspection)	Accounts Payable	F	F	AP	
AP.MAS.VEN.548	Supports 3 way matching (purchase order packing slip invoice)	Accounts Payable	F	F	AP	
AP.MAS.VEN.549	Supports 3 way matching (purchase order invoice)	Accounts Payable	F	F	AP	
AP.MAS.VEN.550	System allows matching method to be applied based on: Chart of accounts (department)	Accounts Payable	F	F	AP	
AP.MAS.VEN.551	Contract	Accounts Payable	F	F	AP	
AP.MAS.VEN.552	Type of purchase	Accounts Payable	F	F	AP	
AP.MAS.VEN.553	Type of good / service purchased (Commodity Code)	Accounts Payable	F	F	AP	
AP.MAS.VEN.554	Matching occurs at:	Accounts Payable	F	F	AP	
AP.MAS.VEN.555	Header/Summary level on PO/receiving document/invoice	Accounts Payable	F	F	AP	
AP.MAS.VEN.556	Line item detail level	Accounts Payable	F	F	AP	
AP.MAS.VEN.557	System provides notification when match does not occur	Accounts Payable	F	F	AP	
AP.MAS.VEN.558	System allows manual invoice entry	Accounts Payable	F	F	AP	
AP.MAS.VEN.559	System supports electronic invoicing	Accounts Payable	F	F	AP	
AP.MAS.VEN.560	System allows entering of direct claims without purchase order component units / business units within the County	Accounts Payable	F	F	AP	
AP.MAS.VEN.561	Runs budget check prior to invoice processing	Accounts Payable	F	F	AP	
AP.MAS.VEN.562	System provides workflow approval path for:	Accounts Payable	F	F	AP	
AP.MAS.VEN.563	Invoices without POs	Accounts Payable	F	F	AP	
AP.MAS.VEN.564	Override of NSF errors on invoices with proper authority	Accounts Payable	F	F	AP	
AP.MAS.VEN.565	System stores scanned image of invoice that is used for approval	Accounts Payable	F	F	AP	
AP.MAS.VEN.566	System allows for different approval workflow for different component units / business units within the County	Accounts Payable	F	F	AP	
AP.MAS.VEN.567	Vendor can import from scanned documents or files	Accounts Payable	F	F	AP	
AP.MAS.VEN.568	System allows for manual invoice	Accounts Payable	F	F	AP	
AP.MAS.VEN.569	After approval, schedule invoices for payment based on:	Accounts Payable	F	F	AP	
AP.MAS.VEN.570	Invoice date (example: 45 days after invoice date)	Accounts Payable	F	F	AP	
AP.MAS.VEN.571	Vendor discount date	Accounts Payable	F	F	AP	
AP.MAS.VEN.572	System allows for multiple invoices per invoice	Accounts Payable	F	F	AP	
AP.MAS.VEN.573	Supports partial payments (partial payment of invoice)	Accounts Payable	F	F	AP	
AP.MAS.VEN.574	Supports payments	Accounts Payable	F	F	AP	
AP.MAS.VEN.575	Supports applying credit memo to invoice for incorrect invoices	Accounts Payable	F	F	AP	
AP.MAS.VEN.576	System allows splitting invoice to multiple accounts (please indicate limitations)	Accounts Payable	F	F	AP	
AP.MAS.VEN.577	System allows getting invoice into multiple fiscal years	Accounts Payable	F	F	AP	
AP.MAS.VEN.578	System allows for multiple invoices per invoice (example: Accounts Payable invoices with pre-defined account distribution)	Accounts Payable	F	F	AP	
AP.MAS.VEN.579	Invoice can be split by:	Accounts Payable	F	F	AP	
AP.MAS.VEN.580	Dollar amount	Accounts Payable	F	F	AP	
AP.MAS.VEN.581	Line item	Accounts Payable	F	F	AP	
AP.MAS.VEN.582	Portion of line item	Accounts Payable	F	F	AP	
AP.MAS.VEN.583	A low payment of multiple purchase orders from one invoice (example: purchase of property - pay title company and property owner)	Accounts Payable	F	F	AP	
AP.MAS.VEN.584	App for one invoice amount to two contracts (example: purchase of property - pay title company and property owner)	Accounts Payable	F	F	AP	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	Target	Start	End	Owner	Stakeholders	Dependencies	Notes
AP1TRINV	A low multiple invoices to be received and processed for one purchase order	Accounts Payable	F	F	AP	AP						
AP1TRINV	System will automatically check for and prevent duplicate invoice numbers for the same vendor (don't pay same invoices)	Accounts Payable	F	F	AP	AP						
AP1TRINV	System allows files to be attached to the system to the invoice (scanned image of invoice)	Accounts Payable	F	F	AP	AP						
AP1TRINV	System supports:	Accounts Payable	NR	NR	AP	AP						
AP1TRINV	Credit/Debit Memo	Accounts Payable	F	F	AP	AP						
AP1TRINV	Credit Memo	Accounts Payable	F	F	AP	AP						
AP1TRINV	Debit memo	Accounts Payable	F	F	AP	AP						
AP1TRINV	System applies credit and debit memo amounts before producing payment	Accounts Payable	F	F	AP	AP						
AP1TRINV	System will apply credit memo only to the extent that they do not produce a negative payment	Accounts Payable	F	F	AP	AP						
AP1TRINV	System tracks balance remaining on credit memo	Accounts Payable	F	F	AP	AP						
AP1TRINV	System can convert credit memo to accounts receivable invoice	Accounts Payable	F	F	AP	AP						
AP1TRINV	System allows user to change account code to apply payment	Accounts Payable	F	F	AP	AP						
AP1TRINV	Invoices can be modified after approval but prior to payment	Accounts Payable	F	F	AP	AP						
AP1TRINV	Invoices can be cancelled prior to payment or after voided payment	Accounts Payable	F	F	AP	AP						
AP1TRINV	Encumbrance are released properly and expenditure applied to accounts when chart of account code is changed by A/P	Accounts Payable	F	F	AP	AP						
AP1TRINV	Months/years system contracts are adjusted when chart of account code is changed by A/P	Accounts Payable	F	F	AP	AP						
AP1TRINV	If a partial payment is made and A/P changes the account remaining amount will be re applied to the new account	Accounts Payable	F	F	AP	AP						
AP1TRINV	System allows invoice inquiry by:	Accounts Payable	NR	NR	AP	AP						
AP1TRINV	Invoice Inquiry	Accounts Payable	F	F	AP	AP						
AP1TRINV	Vendor name	Accounts Payable	F	F	AP	AP						
AP1TRINV	Payment document number	Accounts Payable	F	F	AP	AP						
AP1TRINV	Payment type	Accounts Payable	F	F	AP	AP						
AP1TRINV	Invoice status	Accounts Payable	F	F	AP	AP						
AP1TRINV	System allows create checks with the following items on bank check stock:	Accounts Payable	NR	NR	AP	AP						
AP1TRINV	MICR encoding	Accounts Payable	F	F	AP	AP						
AP1TRINV	Post Office approved bar codes	Accounts Payable	F	F	AP	AP						
AP1TRINV	Electronic signature	Accounts Payable	F	F	AP	AP						
AP1TRINV	System supports electronically ACH (payables, wire transfer, etc) using standard NACHA formats.	Accounts Payable	F	F	AP	AP						
AP1TRINV	The system must print checks according to the following user-defined:	Accounts Payable	NR	NR	AP	AP						
AP1TRINV	Check number	Accounts Payable	F	F	AP	AP						
AP1TRINV	Check date	Accounts Payable	F	F	AP	AP						
AP1TRINV	The system can accommodate the flagging of an invoice for special action such as: needing a remittance form to be sent with it or flag for pick up. The system separately prints the group that needs special action from group that is ready to mail.	Accounts Payable	F	F	AP	AP						
AP1TRINV	The system creates checks based upon:	Accounts Payable	NR	NR	AP	AP						
AP1TRINV	Chart of Account information	Accounts Payable	F	F	AP	AP						
AP1TRINV	Vendor	Accounts Payable	F	F	AP	AP						
AP1TRINV	Payment type (employee reimbursement, one time vendors, etc)	Accounts Payable	F	F	AP	AP						
AP1TRINV	The system allows the use of multiple banks with multiple accounts for DTL	Accounts Payable	F	F	AP	AP						
AP1TRINV	Vendor remittance advice for EFT payments to vendor through	Accounts Payable	F	F	AP	AP						
AP1TRINV	Vendor self service	Accounts Payable	F	F	AP	AP						
AP1TRINV	System permits users to select to pay one invoice per check (issue multiple checks to one vendor in a single check run)	Accounts Payable	F	F	AP	AP						
AP1TRINV	System combines multiple invoice payments onto one check (four one check for multiple invoices in a single check run)	Accounts Payable	F	F	AP	AP						
AP1TRINV	System (remittance invoices (including the vendor invoice number) on the remittance advice	Accounts Payable	F	F	AP	AP						
AP1TRINV	System allows users to place a payment on hold	Accounts Payable	F	F	AP	AP						
AP1TRINV	System provides notification from a payment hold or cancel the entire payment batch.	Accounts Payable	F	F	AP	AP						
AP1TRINV	Error broadcast messages which appears on all Accounts Payable check stubs	Accounts Payable	F	F	AP	AP						
AP1TRINV	User broadcast messages which appears on Accounts Payable check stubs	Accounts Payable	F	F	AP	AP						
AP1TRINV	Users may enter a message for one specific vendor which appears on that specific check stub	Accounts Payable	F	F	AP	AP						
AP1TRINV	System supports Positive Pay checks with MICR encoding, print date required bar code, and electronic signatures from bank check stock.	Accounts Payable	F	F	AP	AP						
AP1TRINV	Check processing date can be overridden with proper authority.	Accounts Payable	F	F	AP	AP						

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Description	Account Type	Process	Priority	Category	Sub-Category	Phase	Notes
633	Print checks through the following means: batch (override batch) on individual basis (or manual (immediate).	Accounts Payable	Process Payment	F	F	PAYM	F	
634	Can import check file from outside sources	Accounts Payable	Process Payment	F	F	PAYM	F	
635	System allows for user-defined messages on check stubs and remittance advice (e.g. broadcast, specific).	Accounts Payable	Process Payment	F	F	PAYM	F	
636	System allows for user-defined transmission files based on prescribed standards.	Accounts Payable	Process Payment	F	F	PAYM	F	
637	Support the use of multiple accounts for both checks and EFTs.	Accounts Payable	Process Payment	F	F	PAYM	F	
638	System automatically records ACH checks (RS 645)	Accounts Payable	Process Payment	F	F	PAYM	F	
639	System allows for user-defined messages for the same vendor on one check and remits the invoices (including the vendor invoice number) on the remittance advice.	Accounts Payable	Process Payment	F	F	PAYM	F	
640	Can check and print checks to user defined checks.	Accounts Payable	Process Payment	F	F	PAYM	F	
641	System allows for user-defined checks and other payments and services payment with user approval.	Accounts Payable	Process Payment	F	F	PAYM	F	
642	System automatically re-sets (if necessary) balances on void payments (liability and encumbrance).	Accounts Payable	Process Payment	F	F	PAYM	F	
643	System allows for user-defined checks and other payments and services payment with user approval.	Accounts Payable	Process Payment	F	F	PAYM	F	
644	Produce/reproduce a check register based on user-defined criteria.	Accounts Payable	Process Payment	F	F	PAYM	F	
645	A flow for overflow to a separate remittance advice when the number of invoices exceeds available space on initial advice.	Accounts Payable	Process Payment	F	F	PAYM	F	
646	Sequentially number and control payments and remittance advice.	Accounts Payable	Process Payment	F	F	PAYM	F	
647	Reprint checks in case of a printer jam or when check stock runs low (reprint) from being issued if cash is not available in an accounting fund.	Accounts Payable	Process Payment	F	F	PAYM	F	
648	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
649	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
650	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
651	Supports high volume check printing equipment as well as low volume (desktop laser printers) located in various County offices.	Accounts Payable	Process Payment	F	F	PAYM	F	
652	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
653	System to create and process checks for entities for which the County is acting as fiscal agent from different bank accounts.	Accounts Payable	Process Payment	F	F	PAYM	F	
654	The system should have a process for clearing a payment types made from the system (e.g. ACH, wiring, check, etc.)	Accounts Payable	Process Payment	F	F	PAYM	F	
655	System to identify different operational and payment checks for entities for which the County is acting as fiscal agent.	Accounts Payable	Process Payment	F	F	PAYM	F	
656	System allows check to be up to 8 on void returns.	Accounts Payable	Process Payment	F	F	PAYM	F	
657	Reprints remittance advice and sends to vendor in desired format.	Accounts Payable	Process Payment	F	F	PAYM	F	
658	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
659	System automatically calculate the base charge amount and removes from invoice.	Accounts Payable	Process Payment	F	F	PAYM	F	
660	System automatically applies Recharge amounts to invoice payments from.	Accounts Payable	Process Payment	F	F	PAYM	F	
661	Vendor file	Accounts Payable	Process Payment	F	F	PAYM	F	
662	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
663	System allows users to view cancelled check images indexed to invoices paid.	Accounts Payable	Process Payment	F	F	PAYM	F	
664	System can release Recharge by selected payments.	Accounts Payable	Process Payment	F	F	PAYM	F	
665	System allows user to cancel check and system makes all correct entries to ensure to reverse payment including contract liability.	Accounts Payable	Process Payment	F	F	PAYM	F	
666	System allows user to void check and re-issue replacement check.	Accounts Payable	Process Payment	F	F	PAYM	F	
667	System allows users to cancel current and prior fiscal year checks and the system automatically credit back designated accounts.	Accounts Payable	Process Payment	F	F	PAYM	F	
668	A low user to place a "stop payment" on checks and automatically generate the appropriate general ledger transaction.	Accounts Payable	Process Payment	F	F	PAYM	F	
669	Perform on-line bank reconciliation based upon electronic file (daily or monthly data) sent by various banks.	Accounts Payable	Process Payment	F	F	PAYM	F	
670	System provides automated bank reconciliation features to compare system transactions with bank transactions and	Accounts Payable	Process Payment	F	F	PAYM	F	
671	User can view front and back of check in system.	Accounts Payable	Process Payment	F	F	PAYM	F	
672	System can identify uncashed checks.	Accounts Payable	Process Payment	F	F	PAYM	F	
673	System can provide a report for uncashed checks.	Accounts Payable	Process Payment	F	F	PAYM	F	
674	Vendor self service allows users to view status and history of: Outstanding invoices awaiting payment.	Accounts Payable	Process Payment	F	F	PAYM	F	
675	Outstanding invoices awaiting payment.	Accounts Payable	Process Payment	F	F	PAYM	F	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Control	Frequency	Start Date	End Date	Notes
AP.MAS.VEN.676	Obtaining purchase orders	Accounts Payable	F	F	SP				
AP.MAS.VEN.677	History of payments	Accounts Payable	F	F	SP				
AP.MAS.VEN.678	Vendor can access self service to make changes to vendor file	Accounts Payable	NR	NR					
AP.MAS.VEN.679	Vendor address	Accounts Payable	F	F	SP				
AP.MAS.VEN.680	Contact information	Accounts Payable	F	F	SP				
AP.MAS.VEN.681	Doing Business As Name	Accounts Payable	F	F	SP				
AP.MAS.VEN.682	Preferred Payment Method	Accounts Payable	F	F	SP				
AP.MAS.VEN.683	For ACH transactions vendor can enter bank routing number and account number	Accounts Payable	F	F	SP				
AP.MAS.VEN.684	A change to vendor file information submitted through vendor self service are routed through workflow for approval.	Accounts Payable	F	F	SP				
AP.MAS.VEN.685	Vendors will receive automatic notification through email for vendor self service with information normally found on check stub	Accounts Payable	F	F	SP				
AP.MAS.VEN.686	Process cumulative payments to 1099 vendors	Accounts Payable	F	F	AP.PAYM				
AP.MAS.VEN.687	System combines cumulative payments from system with payments made in other systems to create one 1099 for each vendor	CU	CU	AP.PAYM					
AP.MAS.VEN.688	On-demand 1099 form generation	F	F	AP.PAYM					
AP.MAS.VEN.689	Collect necessary information for generation of federal 1099s at year-end (both manually and per IRS approved file)	F	F	AP.PAYM					
AP.MAS.VEN.690	System to print collected 1099s payments into appropriate reporting issues, i.e. rent non-employee compensation, etc.	F	F	AP.PAYM					
AP.MAS.VEN.691	System can produce electronic file to send 1099 related forms to IRS	F	F	AP.PAYM					
AP.MAS.VEN.692	Can print 1099 and related forms	F	F	AP.PAYM					
AP.ACCT.CIS.693	Option to close/open accounts payable module to prevent or allow transactions to be processed	F	F	AP					
FM.GEN.694	Budget system uses the financial system's chart of accounts	Budget	E	F	HP				The One-Click Budget tool will integrate with E-Business Suite for the budget interface. The One-Click Budget tool will be available in the 2009-10 fiscal year. The One-Click Budget tool will be available in the 2009-10 fiscal year. The One-Click Budget tool will be available in the 2009-10 fiscal year.
FM.GEN.695	System uses budget year as well as fiscal year	Budget	E	F	HP				
FM.CON.696	System provides multiple levels of controls on the following types of budgets:	Budget	NR	NR					
FM.CON.697	Fund	Control	F	F	GL				
FM.CON.698	Department	Control	F	F	GL				
FM.CON.699	Division (e.g. County Business Unit)	Control	F	F	GL				
FM.CON.700	Program	Control	F	F	GL				
FM.CON.701	Project	Control	F	F	GL				
FM.CON.702	Account	Control	F	F	GL, GA				
FM.CON.703	Month	Control	F	F	GL				
FM.CON.704	Year	Control	F	F	GL				
FM.CON.705	System allows budget to be allocated out to defined periods within the year:	Budget	NR	NR					
FM.CON.706	Month	Control	F	F	GL				
FM.CON.707	Quarter	Control	F	F	GL				
FM.CON.708	Small Annual	Control	F	F	GL				
FM.CON.709	Percentage	Control	F	F	GL				
FM.CON.710	Based on seasonal trends	Control	F	F	GL				
FM.CON.711	System can create appropriation budget and a foundation budget	Budget	F	F	GL				
FM.CON.712	System provides the ability to carry forward available appropriations to the next budget period based on the funding source. Clarify within the current budget year.	Budget	E	F	GL				
FM.CON.713	Individual appropriation budgetary control options in the system	Budget	NR	NR					
FM.CON.714	Hard-prevents transactions from processing without override approval	Control	F	F	GL				
FM.CON.715	Soft-provides warning message but allows transactions to process	Control	F	F	GL				
FM.CON.716	Allow for items to be run to validate transactions transferred to the general ledger to determine if they were posted or not	Control	SR	SR	GL				
FM.CON.717	No control-allow transaction to process without warning	Control	F	F	GL				
FM.CON.718	Ability to ensure that all transactions using an effective budget authority (appropriation grant, project, department) are validated online real-time against up-to-date budget totals based on established budgetary controls.	Budget	F	F	GL				
FM.CON.719	Ability to accommodate pre-encumbrance control based upon funds availability.	Budget	E	F	GL				
FM.CON.720	Ability to accommodate encumbrance control.	Budget	F	F	GL				
FM.CON.721	Ability to set up encumbrance budgets and	Budget	F	F	GL				
FM.CON.722	Ability to set up "unencumbered" or "tracked" budgets	Budget	F	F	GL				
FM.CON.723	Ability to override budget control with proper authority.	Control	F	F	GL				

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Effort	Complexity	Dependencies	Notes
724	Ability to record various "review" dates (e.g. Departmental review, Budget Director review, Board of Commissioners review etc.) linked to the budget calendar	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system has a task list system that uses account numbers, account names, and account types to track the status of accounts. Accounting calculations, timing reports, the timing of the review process, and the timing of the review process are all tracked in the system. The system also tracks the percentage of items that are complete, in progress, and overdue.
725	System stores common rates that are used by all departments (examples: full price) to determine projected wage cost	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can store rates for various accounts. These rates can be used to calculate the projected wage cost for an account. The system also tracks the percentage of items that are complete, in progress, and overdue.
726	System stores rates that are used by all departments (examples: user charges)	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can store rates for various accounts. These rates can be used to calculate the projected wage cost for an account. The system also tracks the percentage of items that are complete, in progress, and overdue.
727	System creates an initial version of the budget (for use by departments to submit requests) using any of the following: Zero balances in all accounts	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
728	Zero balances in all accounts	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
729	Top year budget forecast from prior year's budget development process	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
730	Current year's original budget	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
731	Current year's adjusted budget	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
732	Last year's budget	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
733	Last year's adjusted	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
734	Last year's actual	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
735	Current year's budget plus/minus a percentage	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.
736	Previous year's budget or actual plus/minus a percentage	FM/PREP/CEN	HP	F	F	F	HP	The One-Click Budget system can create an initial version of the budget. This version can be used by departments to submit requests. The system also tracks the percentage of items that are complete, in progress, and overdue.

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Req Category	Priority	Impact	Notes
791	FM/PREP/REQ	Trends	Budget	F	F	The system will calculate trends based on actual revenues, double-approve at smoothing or triple exponential smoothing.
792	FM/PREP/REQ	Hourly rate	Budget	F	F	The system reports being able to drill hourly rates and their rates.
793	FM/PREP/REQ	Percentage change (positive or negative)	Budget	F	F	The system can use year to year or month to month percentages as it is.
794	FM/PREP/REQ	Ability to record budget credits (negative numbers)	Budget	F	F	The system understands what a budget account is and stores budget credits as negative numbers.
795	FM/PREP/REQ	Ability to control spend by revenue source	Budget	F	NR	
796	FM/PREP/REQ	System allows users to adjust budget version line items or summary totals by:	Budget	F	F	
797	FM/PREP/REQ	Percentage	Budget	F	F	The system is configured to adjust value for summary data by a factor of a percent age or a value—either positive or negative amounts.
798	FM/PREP/REQ	Dollar amount	Budget	F	F	The system is configured to support dollar for summary data by a factor of a percent age or a value—either positive or negative amounts.
799	FM/PREP/REQ	System calculates and budgets for dependent items based on other requests (example: benefit/budgets calculated based on salary budget)	Budget	F	F	The system is configured to support dependencies on other items such as benefits being driven by an area; this is configured for both job cost and employee as well as assets and projects.
800	FM/PREP/REQ	Performance measures tracked in the system contain the following information:	Budget	NR	NR	
801	FM/PREP/REQ	Definition	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
802	FM/PREP/REQ	Description	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
803	FM/PREP/REQ	Targets	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
804	FM/PREP/REQ	Outcomes	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
805	FM/PREP/REQ	Link to department program etc. (through chart of accounts)	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
806	FM/PREP/REQ	Prior year actual performance measures	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
807	FM/PREP/REQ	System links goals and objectives to performance measures tracked in the system	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
808	FM/PREP/REQ	Users can flag one-time budget events and the system automatically removes them from the next year's budget	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
809	FM/PREP/REQ	System allows departments to prioritize budget requests	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
810	FM/PREP/REQ	Users can create multiple versions of a budget request for "what if" scenario simulation	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
811	FM/PREP/REQ	Each department/user can create multiple versions of the budget request. Please state any limitations	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
812	FM/PREP/REQ	A low reviewer/approver to add comments to budget request documents or budget line items.	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
813	FM/PREP/REQ	Ability for user to list budget items at any level in the hierarchy	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
814	FM/PREP/REQ	System compares budget versions to demonstrate changes that have been made between versions	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
815	FM/PREP/REQ	Ability to copy identify when viewing a department budget where it is in the budget review process	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
816	FM/PREP/FOR	System uses scenarios for forecast building	Budget	F	F	Performance measures can be configured to support gathering data such as defined on, description, tags, A, and outcomes and the data can be gathered over time (month, years).
817	FM/PREP/FOR	System performs what if forecasting by:	Budget	NR	NR	
818	FM/PREP/FOR	Increase/ decrease line items by percentage	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
819	FM/PREP/FOR	Increase/ decrease line items by dollar	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
820	FM/PREP/FOR	Percentage based on last year actual	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
821	FM/PREP/FOR	Saved scenarios (based on different assumptions)	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
822	FM/PREP/FOR	Use trend factors to adjust forecast	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
823	FM/PREP/FOR	Forecasters are displayed by:	Budget	NR	NR	
824	FM/PREP/FOR	Calendar year	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
825	FM/PREP/FOR	Month	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
826	FM/PREP/FOR	Quarter	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
827	FM/PREP/FOR	Year	Budget	F	F	The system will allow users to adjust budget forecast by a factor of a percent age or a value—either positive or negative amounts.
828	FM/PREP/FOR	System uses the following methods to create budget forecast:	Budget	NR	NR	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Notes
847	Expenditure pre-encumbrance and encumbrance information can be reflected against capital and grant budgets.	Budget	F	HP	Yes.
848	Capital budgets created in the budget module can be automatically transferred to the project module.	Capital Budget	F	HP	The module can be configured to feed data from the Capital module to the Project module by passing the necessary data over.
849	Project budgets created roll up to create departmental capital budget and overall County capital improvement plan.	Capital Budget	F	HP	Cap roll ups are done at the lowest level of the organization and all figures roll up to summary needs for reporting.
850	Capital budget supports multi-year budgeting to minimum of 10 years.	Capital Budget	F	HP	Yes, table 1 can have a life of 10 years or more. Freehold.
851	Capital budgets can be created for following time periods: Fiscal year, Multi-year, Grant, Month.	Capital Budget	F	HP	Yes.
852	Capital budgets can be created for following time periods: Fiscal year, Multi-year, Grant, Month.	Capital Budget	F	HP	Yes.
853	Capital budgets are able to capture lifetime project budgets.	Capital Budget	F	HP	Yes.
854	System supports narrative description of project.	Capital Budget	F	HP	Yes.
855	System supports current year forecasting and carry over projections into future capital improvement plan years.	Capital Budget	F	HP	Yes.
856	Budget system uses HR data without having to re-enter HR data.	Budget	F	HP	The Oracle Budget system data integration tool can integrate with the Oracle HR system to pull HR data into the budget system.
857	Budget system will update the HR System after budget adoption with any changes made to budgeted positions, salary data.	Budget	F	HP	Yes, the Oracle Budget system data integration tool can be configured to update the HR system with budget data.
858	New positions can be added into the budget system and load into the HR system after budget adoption.	Budget	F	HP	If that is the business requirement, it can be mapped to work a the payroll human resources app with updated/developed data.
859	System provides ability to propose changing position status as part of budget development.	Budget	F	HP	Yes.
860	Active / deleted (deleted means inactive or closed)	Budget	F	HP	Yes.
861	Funded / unfunded	Budget	F	HP	Yes.
862	Filled / vacant	Budget	F	HP	Yes.
863	Continuation / new - proposed	Budget	F	HP	Yes.
864	Identifies funding sources for positions	Budget	F	HP	Yes.
865	Ability to move positions from one budget or cost center to another with appropriate authorization.	Budget	F	HP	Yes.
866	System allows for the cost of a position to be allocated to multiple segments of the chart of accounts (i.e. organizational code, program, projects, grants, etc.)	Budget	F	HP	Yes.
867	System allows for changing the number of authorized full time equivalents per position.	Budget	F	HP	Yes.
868	System allows for towing operations (for projection purposes) and with the proper security authorization.	Budget	F	HP	Yes.
869	System allows for the number of authorized or budgeted positions.	Budget	F	HP	Yes.
870	Modify / fixed/vacant status (for projection purposes)	Budget	F	HP	Yes.
871	Controls the number of employees filling a position based on the performance on the edit checking and addition to prevent more than one employee from being assigned to the same position number.	Budget	F	HP	Yes.
872	Maintains position history including tracking the creation and deletion of positions during budget development.	Budget	F	HP	Yes.
873	Benefits costs are calculated for each position based on current employees actual benefit selections.	Budget	F	HP	Yes.
874	Average benefit costs for all filled positions (system calculates average)	Budget	F	HP	Yes.
875	System maintains history of the E-Business budgets.	Budget	F	HP	Yes.
876	Requested budget.	Budget	F	HP	Yes.
877	Recommended budget.	Budget	F	HP	Yes.
878	Adopted budget.	Budget	F	HP	Yes.
879	Final budget.	Budget	F	HP	Yes.
880	Adjusted budget.	Budget	F	HP	Yes.
881	Budget approval workflow can be set differently for each department.	Budget	F	HP	Yes.
882	System maintains approval workflow for budget requests within and for each department.	Budget	F	HP	Yes.
883	Roll versions of the budget to prevent further editing by users.	Budget	F	HP	Yes.
884	Budget publishing tool uses real time data point in time data saved templates and narrative information to produce budget documents.	Budget Publishing	F	HP	Yes.
885	Budget publishing tool uses real time data point in time data saved templates and narrative information to produce budget documents.	Budget Publishing	F	HP	Yes.
886	System uses all local currency information, narrative and reporting information (including page numbers) for...	Budget Publishing	F	HP	Yes.

Exhibit ZA -3 Functional and Technical Requirements in Scope

Req ID	Req Title	Req Description	Category	Priority	Phase	Start	End	Owner	Responsible	Approved	Reviewed	Accepted	Rejected	Cancelled	Archived	Deleted	Other
892	FM.PREP.PUB	Recommend budget book	Budget Publishing	F	F	HP			Yes, the reporting system can collect documents and reports into a central location that can include the information and adopted budget books as well as other internal information.	F	F	HP					
893	FM.PREP.PUB	Adopted budget book	Budget Publishing	F	F	HP			The book created on previous steps create a table of contents that not an index or glossary. These items can be included in the book as a separate section or as part of the budget book. A book will produce what is needed for the budget book.	F	F	HP					
894	FM.PREP.PUB	Produce the table of contents inside glossary for the budget document	Budget Publishing	F	F	HP			The book created on previous steps create a table of contents that not an index or glossary. These items can be included in the book as a separate section or as part of the budget book. A book will produce what is needed for the budget book.	F	F	HP					
895	FM.PREP.PUB	Incorporate capital budget in to annual document and also has the capability to produce a multi-year capital budgeting document.	Budget Publishing	F	F	HP			The system create a report and save it into Microsoft Word, PowerPoint, and Excel, not Pub like.	F	F	HP					
896	FM.PREP.PUB	System export information directly into Word, Excel and PowerPoint	Budget Publishing	F	F	HP			For each user and content is in reporting and enable and way to create users from the source of capturing the notes.	F	F	HP					
897	FM.PREP.PUB	System allow user to create Expenses and comments with flexible formatting for budget publications	Budget Publishing	F	F	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	F	F	HP					
898	FM.PREP.PUB	Budget document publishes all or part of the following information: a) Budget summary by the Country.	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
899	FM.PREP.PUB	Budget message	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
900	FM.PREP.PUB	Financial policies	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
901	FM.PREP.PUB	Goals and objectives	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
902	FM.PREP.PUB	Short term initiatives	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
903	FM.PREP.PUB	Describes all services programs carried out by organization	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
904	FM.PREP.PUB	Performance data	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
905	FM.PREP.PUB	Listing and description of all appropriated funds	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
906	FM.PREP.PUB	Summary of major revenue and listing by type	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
907	FM.PREP.PUB	Summary of major expenses and listing by type	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
908	FM.PREP.PUB	Expenses listed by function, organizational unit, or program	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					
909	FM.PREP.PUB	Prior year expenses compared to budgeted amounts	Budget Publishing	CR	CR	HP			Since each budget book is completely different from one customer to the other, the book creation tool leverages several technologies to produce a complete, formatted budget book. Each of the technologies can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book name in the Book tool. A few users to collect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.	CR	CR	HP					

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	Version	Created	Last Modified	Created By	Last Modified By	Status	Comments
FAM.PREP.PUB	910 Financial information for previous years	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	911 Capital budget expenditures and plans	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	912 Financial data on current debt	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	913 Other debt information including debt limitations, mileage rates	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	914 Key dates in budget process	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	915 Organization charts	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	916 Personnel counts	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	917 Department budget includes:	Budget Publishing	NR	HP							NR	
FAM.PREP.PUB	918 Financial information	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	919 Position information	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	920 Mission, goals, accomplishments and other text stored in budget system	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	921 Performance measures	Budget Publishing	CR	HP	CR	HP					CR	Since each budget book is completely different from one customer to the other, the book creation tool leverages several techno-ologies to produce a complete, formatted budget book. Each of the label narratives can be created and formatted in the Reporting Studio or Microsoft Word and included as part of the budget book when it is generated. The Book tool allows users to co-lect Word documents, PDFs, Excel workbooks, financial report A, and so forth into an organized structure.
FAM.PREP.PUB	922 System provides a spelling and grammar check for budget document	Budget Publishing	N	N	N	N					N	No, the budget book created on tool is not intended to mimic a just-in-time software.
FAM.MANT	923 System allows transfers within and between all segments of the budget	Budget Publishing	F	F	F	F					F	Yes, the segments are distributed in the OIC to budget by city.
FAM.MANT	924 Ability to enter budget adjustments in a pending status for final approval	Budget Publishing	F	F	F	F					F	Yes, the owner in Workflow can make changes. o date
FAM.MANT	925 Department authority within the approved budget	Budget Publishing	F	F	F	F					F	Yes.
FAM.MANT	926 System stores narrative justification for each budget amendment	Budget Publishing	F	F	F	F					F	Yes, when users log just call on a provided o date in that temp site.
FAM.MANT	927 System stores attachments related to each budget amendment	Budget Publishing	F	F	F	F					F	Yes, all attachments are associated with a cell in a template.
FAM.MANT	928 Requests for budget amendments are submitted electronically by departments and routed via workflow for approval via electronic signature.	Budget Publishing	F	F	F	F					F	Yes, users are notified via email that they have a budget pending their review. A link takes them to the budget they are to review.

Exhibit 2A -3 Functional and Technical Requirements in Scope

Requirement ID	Requirement Description	Category	Priority	Impact	Frequency	Complexity	Dependencies	Notes
929	Does not allow budget reductions below the amounts already per	Budget	F	F	HP	2		
930	Amendment workflow approval path determined by:	Budget	NR	NR	HP	2		
931	Level of amendment (Dept, CAD or Board)	Budget	F	F	HP	2		
932	Dollar amount	Budget	F	F	HP	2		
933	Chart of accounts	Budget	F	F	HP	2		
934	Reason for amendment	Budget	F	F	HP	2		
935	System validates and enforces rule that a budget amendment	Budget	F	F	HP	2		
936	and transfers must balance	Budget	F	F	HP	2		
937	Departments have visibility to track the approval status of each	Budget	F	F	HP	2		
938	System tracks a budget changes including:	Budget	NR	NR	HP	2		
939	Type of change	Budget	CR	CR	HP	2		
940	Description of change	Budget	CR	CR	HP	2		
941	Date/time of change	Budget	CR	CR	HP	2		
942	Reason for change	Budget	CR	CR	HP	2		
943	Who requested the change	Budget	CR	CR	HP	2		
944	Approved date	Budget	CR	CR	HP	2		
945	Amended vs. original	Budget	CR	CR	HP	2		
946	The original change request	Budget	CR	CR	HP	2		
947	Overall budgetary effect	Budget	CR	CR	HP	2		
948	System can attach electronic documents including photos, CAD	Fixed Assets	F	F	FA	2		
949	pdf) to an asset record.	Fixed Assets	NR	NR	FA	2		
950	System tracks asset location:	Fixed Assets	F	F	FA	2		
951	Non-capitalized items	Fixed Assets	F	F	FA	2		
952	Identifies assets based on user defined capitalization threshold	Fixed Assets	NR	NR	FA	2		
953	Equipment	Fixed Assets	F	F	FA	2		
954	Buildings	Fixed Assets	F	F	FA	2		
955	Infrastructure	Fixed Assets	F	F	FA	2		
956	Intangibles	Fixed Assets	F	F	FA	2		
957	Assets are tracked by category	Fixed Assets	F	F	FA	2		
958	System provides user defined sub categories that roll up	Fixed Assets	F	F	FA	2		
959	Categories are grouped by operating purposes	Fixed Assets	F	F	FA	2		
960	System tracks asset history:	Fixed Assets	F	F	FA	2		
961	Ability to capitalized items in aggregate (i.e. a group)	Fixed Assets	F	F	FA	2		
962	Ability to barcode and identify barcode numbers	Fixed Assets	CR	CR	FA	2		
963	System allows addition and maintenance of assets obtained	Fixed Assets	F	F	FA	2		
964	through non-expenditure transactions (i.e. gifts, donations	Fixed Assets	CU	CU	FA	2		
965	Identifies grant funded assets by:	Fixed Assets	NR	NR	FA	2		
966	Identifying more than one grant associated with an asset	Fixed Assets	CR	CR	FA	2		
967	Identifying the percentage split or capitalization breakout (to	Fixed Assets	CR	CR	FA	2		
968	each grant) for each asset.	Fixed Assets	CU	CU	FA	2		
969	Acquisition and Disposal restrictions	Fixed Assets	F	F	FA	2		
970	Accommodates free-form descriptive text to further describe any	Fixed Assets	F	F	FA	2		
971	asset.	Fixed Assets	F	F	FA	2		
972	Tracks assets with shared ownership (shared with other external	Fixed Assets	F	F	FA	2		
973	organizations) with percentage that can be different for each	Fixed Assets	F	F	FA	2		
974	asset (example: 39%/61%)	Fixed Assets	F	F	FA	2		
975	Tracks multiple related accounts and multiple related	Fixed Assets	F	F	FA	2		
976	depreciation expense accounts with an asset and assigns a	Fixed Assets	F	F	FA	2		
977	percentage split between each.	Fixed Assets	F	F	FA	2		
978	Identifies grant funded assets by:	Fixed Assets	F	F	FA	2		
979	Identifying more than one grant associated with an asset	Fixed Assets	CR	CR	FA	2		
980	Identifying the percentage split or capitalization breakout (to	Fixed Assets	CR	CR	FA	2		
981	each grant) for each asset.	Fixed Assets	CU	CU	FA	2		
982	Acquisition and Disposal restrictions	Fixed Assets	F	F	FA	2		
983	Accommodates free-form descriptive text to further describe any	Fixed Assets	F	F	FA	2		
984	asset.	Fixed Assets	F	F	FA	2		
985	Tracks assets with shared ownership (shared with other external	Fixed Assets	F	F	FA	2		
986	organizations) with percentage that can be different for each	Fixed Assets	F	F	FA	2		
987	asset (example: 39%/61%)	Fixed Assets	F	F	FA	2		
988	Tracks multiple related accounts and multiple related	Fixed Assets	F	F	FA	2		
989	depreciation expense accounts with an asset and assigns a	Fixed Assets	F	F	FA	2		
990	percentage split between each.	Fixed Assets	F	F	FA	2		
991	Identifies grant funded assets by:	Fixed Assets	F	F	FA	2		
992	Identifying more than one grant associated with an asset	Fixed Assets	CR	CR	FA	2		
993	Identifying the percentage split or capitalization breakout (to	Fixed Assets	CR	CR	FA	2		
994	each grant) for each asset.	Fixed Assets	CU	CU	FA	2		
995	Acquisition and Disposal restrictions	Fixed Assets	F	F	FA	2		
996	Accommodates free-form descriptive text to further describe any	Fixed Assets	F	F	FA	2		
997	asset.	Fixed Assets	F	F	FA	2		
998	Tracks assets with shared ownership (shared with other external	Fixed Assets	F	F	FA	2		
999	organizations) with percentage that can be different for each	Fixed Assets	F	F	FA	2		
1000	asset (example: 39%/61%)	Fixed Assets	F	F	FA	2		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	Notes
977	System stores and tracks work order history for assets and associated costs	Fixed Assets	General	FA	F	Fixed Assets can track work order history information, but it does not contain a maintenance management system.
978	Low effective date posting for asset acquisition	Fixed Assets	Acquisition	FA	F	
979	System allows transfer of fixed assets including partial transfers	Fixed Assets	Transfer	FA	F	
980	System allows transfer of fixed assets between organizations at the individual asset level	Fixed Assets	Transfer	FA	F	
981	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
982	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
983	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
984	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
985	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
986	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
987	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
988	System allows users to identify/classify costs as capital asset costs	Fixed Assets	Acquisition	FA	F	
989	A tool for tracking of construction in process (CIP) assets	Fixed Assets	Acquisition	FA	F	
990	A tool for process to transfer CIP asset to an active asset and automatically creates related accounting entries in the general ledger	Fixed Assets	Acquisition	FA	F	
991	Assets that have been transferred maintain detailed history	Fixed Assets	Transfer	FA	F	
992	A low effective date posting for asset transfers	Fixed Assets	Transfer	FA	F	
993	System allows transfer of fixed assets including partial transfers	Fixed Assets	Transfer	FA	F	
994	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
995	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
996	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
997	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
998	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
999	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1000	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1001	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1002	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1003	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1004	System flags donated items during disposal (donated items may need to go back to general ledger)	Fixed Assets	Disposal	FA	F	
1005	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1006	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1007	System calculates the gain or loss on disposition of asset and records related accounting entries in general ledger	Fixed Assets	Disposal	FA	F	
1008	System allows assets to be transferred between funds and automatically makes all necessary accounting entries	Fixed Assets	Transfer	FA	F	
1009	System has the ability to support multiple depreciation schedules per asset	Fixed Assets	Depreciation	FA	F	
1010	System allows for changing the following and will automatically recalculate depreciation expense in accordance with such changes (with proper authorization): - Depreciation method - Useful life - Salvage value - Depreciation method - System provides multiple depreciation methods including: - Straight Line - Declining Balance - MACRS (modified ACS) - S-Curve (asset cost recovery system) - Other user-defined - SACRS (straight line ACS) - Special Alternative ACS	Fixed Assets	Depreciation	FA	F	
1011	System prevents the depreciating of an asset's value below zero	Fixed Assets	Depreciation	FA	F	
1012	Depreciation calculated at: - End of year - End of month - End of quarter - Half-year - Other user-defined criteria	Fixed Assets	Depreciation	FA	F	
1013	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1014	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1015	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1016	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1017	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1018	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1019	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1020	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1021	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1022	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1023	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1024	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1025	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1026	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1027	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1028	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1029	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1030	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1031	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1032	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	
1033	System calculates per-rated depreciation for assets sold mid-year (mid-month)	Fixed Assets	Depreciation	FA	F	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Title	Req Description	Priority	Category	Sub-Category	Impact	Frequency	Phase	Dependencies	Notes
1034	FA/INV	System supports periodic or on demand inventory of all County assets.	F	Inventory	Inventory	F	F	FA		
1035	FA/INV	System supports the capability to adjust fixed asset records after an inventory.	F	Inventory	Inventory	F	F	FA		
1036	FA/Accounts Receivable	Maintain online maintenance history and cost information and warranty/service agreement information for individual assets.	F	Warranty	Warranty	F	F	FA		
1037	FA/Accounts Receivable	Records and tracks regular/preventive maintenance performed on selected assets.	F	Warranty	Warranty	F	F	FA		
1038	FA/REP	This program includes the following standard reports:	NR	Reporting	Reporting	NR	NR	FA		
1039	FA/REP	period reports	SR	Reporting	Reporting	SR	SR	FA		
1040	FA/REP	depreciation expense reports	SR	Reporting	Reporting	SR	SR	FA		
1041	FA/REP	activity reports	SR	Reporting	Reporting	SR	SR	FA		
1042	FA/REP	added assets reports	SR	Reporting	Reporting	SR	SR	FA		
1043	FA/REP	adjusted assets reports	SR	Reporting	Reporting	SR	SR	FA		
1044	FA/REP	transferred assets reports	SR	Reporting	Reporting	SR	SR	FA		
1045	FA/REP	retired assets reports	SR	Reporting	Reporting	SR	SR	FA		
1046	FA/REP	management reports	SR	Reporting	Reporting	SR	SR	FA		
1047	FA/REP	asset master data reports	SR	Reporting	Reporting	SR	SR	FA		
1048	FA/REP	cost and relative reports	SR	Reporting	Reporting	SR	SR	FA		
1049	FA/REP	depreciation projection reports	SR	Reporting	Reporting	SR	SR	FA		
1050	FA/REP	gain and losses reports	SR	Reporting	Reporting	SR	SR	FA		
1051	FA/REP	property listing by location (tax and physical) reports	SR	Reporting	Reporting	SR	SR	FA		
1052	FA/REP	investment tax credit reports	SR	Reporting	Reporting	SR	SR	FA		
1053	FA/REP	Reconciliation report between General Ledger and fixed assets	SR	Reporting	Reporting	SR	SR	FA		
1054	GA/GEN	Grants may have the following status:	NR	General	General	NR	NR	GA		
1055	GA/GEN	Application (not awarded)	N	General	General	N	N	GA		
1056	GA/GEN	Waiting for approval	N	General	General	N	N	GA		
1057	GA/GEN	Awarded	F	General	General	F	F	GA		
1058	GA/GEN	Not awarded	F	General	General	F	F	GA		
1059	GA/GEN	Charged	F	General	General	F	F	GA		
1060	GA/GEN	Investment tax credit	F	General	General	F	F	GA		
1061	GA/GEN	Tracks address of grant source	F	General	General	F	F	GA		
1062	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1063	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1064	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1065	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1066	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1067	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1068	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1069	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1070	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		
1071	GA/GEN	Tracks actual award amount	F	General	General	F	F	GA		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Frequency	Start Date	End Date	Dependencies	Notes
GA-ACCT-1135	Functionality to calculate expenses of the sub-recipients/vendors and alert if total actual expenditures of department exceed grant items.	Grants Accounting	F	F	F	GA, AP			
GA-ACCT-1136	Ability to identify Core Incentive Commissions based on deliverables (e.g. of department that uses this transportation).	Grants Accounting	F	F	F	GA, POC			
GA-ACCT-1137	Insurance requirements of sub-recipients (period of applicability and expiration date).	Grants Accounting	F	F	F	GA, POC, SLM			
GA-ACCT-1138	Provides electronic signatures for approval.	Grants Accounting	F	F	F	GA			
GA-ACCT-1139	Ability to charge fringe benefits associated with direct payroll charges.	Grants Accounting	F	F	F	GA			
GA-ACCT-1140	Ability to process fringe benefits when a business unit's budget is not in the system.	Grants Accounting	F	F	F	GA			
GA-ACCT-1141	Ability to start agency of any delinquencies during invoice processing.	Grants Accounting	CU	CU	CU	GA			
GA-ACCT-1142	Automate checking/filing out insurance information of sub-recipients based on the requirements of the County/department.	Grants Accounting	F	F	F	ISP, SLM			
GA-ACCT-1143	Automatically hold off money/invoice payment to sub-recipient until all lease rate requirements are met by the sub-recipient.	Grants Accounting	CU	CU	CU	ISP, SLM, AP			
GA-ACCT-1144	Notice (30-60 days) before expiration of the insurance(s) of the sub-recipients to be able to track them better.	Grants Accounting	F	F	F	GA, POC			
GA-ACCT-1145	Encumbrance of contract requests to enable better sub-recipient tracking.	Grants Accounting	F	F	F	GA, PO			
GA-ACCT-1146	Ability to track contract if fringe payments/expenses do not come on line.	Grants Accounting	F	F	F	GA, POC			
GA-ACCT-1147	Prevent any expenses from being posted to the grant when the end date for the grant comes.	Grants Accounting	F	F	F	GA			
GA-ACCT-1148	Ability to have some pre-approved agencies for grants based on Department of Homeland Security (does this).	Grants Accounting	CU	CU	CU	GA, SLM			
GA-ACCT-1149	Ability to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	F	F	F	GA, AP			
GA-ACCT-1150	Ability to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	F	F	F	GA, AP			
GA-ACCT-1151	Ability to post controls to prevent duplicate payments.	Grants Accounting	F	F	F	GA, AP			
GA-ACCT-1152	Ability for potential vendors and sub-recipients to submit applications online through the system.	Grants Accounting	F	F	F	GA, AP			
GA-ACCT-1153	Ability to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	CU	CU	CU	GA			
GA-ACCT-1154	System should be able to accommodate changing percentage to the grant and percentage to the sub-recipient contract.	Grants Accounting	F	F	F	GA			
GA-ACCT-1155	Automatic transaction analysis is done daily during invoicing to ensure that payments processes are accurately reflected in correct amount.	Grants Accounting	CU	CU	CU	GA, AP			
GA-ACCT-1157	Ability to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	CU	CU	CU	GA			
GA-ACCT-1158	Ability for sub-recipients and vendors to have a service to make any changes - such as to their address - with an approval system.	Grants Accounting	F	F	F	ISP, SLM			
GA-ACCT-1159	Automatic reminder to be sent to departments 60 days before closeout of grants.	Grants Accounting	F	F	F	GA, POC			
GA-ACCT-1160	Automatic reminder to be sent to contracting agencies 90 days before closeout of grants.	Grants Accounting	F	F	F	GA, POC			
GA-ACCT-1161	System should be able to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	F	F	F	PO			
GA-RPT-1162	Generates reports based upon grantor-defined categories or the sub-recipient system.	Grants Accounting	CR	CR	CR	GA			
GA-RPT-1164	System should be able to track and maintain record of all history of grants (including those that are not in the system).	Grants Accounting	F	F	F	GA			
PAGE-1165	Supports multiple-year projects.	Project Accounting	F	F	F	PC			
PAGE-1166	Ability to identify type of project (housing, building, etc.).	Project Accounting	F	F	F	PC			
PAGE-1167	Supports parent/child relations for projects and sub-projects (numbers, etc.).	Project Accounting	F	F	F	PC			
PAGE-1168	Ability to associate projects with other projects in a hierarchical structure.	Project Accounting	F	F	F	PC			
PAGE-1169	System should be able to track and maintain record of all history of grants (including those that are not in the system).	Project Accounting	F	F	F	PC			
PAGE-1170	System should be able to track and maintain record of all history of grants (including those that are not in the system).	Project Accounting	F	F	F	PC			
PAGE-1171	Support year-defined fields (e.g. State funding numbers, bond numbers, etc.).	Project Accounting	F	F	F	PC			
PAGE-1172	Supports text description of projects (Please specify in the following dates).	Project Accounting	F	F	F	PC			
PAGE-1173	Tracks the following dates:	Project Accounting	NR	NR	NR	PC			
PAGE-1174	Planned project start date.	Project Accounting	F	F	F	PC			
PAGE-1175	Actual project start date.	Project Accounting	F	F	F	PC			
PAGE-1176	Planned project completion date.	Project Accounting	F	F	F	PC			
PAGE-1177	Actual project completion date.	Project Accounting	F	F	F	PC			
PAGE-1178	Other key dates and completion for milestones.	Project Accounting	F	F	F	PC, POC			
PAGE-1179	Projects can be established across multiple funds and departments.	Project Accounting	F	F	F	PC			
PAGE-1180	System should be able to track and maintain record of all history of grants (including those that are not in the system).	Project Accounting	F	F	F	PC			
PAGE-1181	Projects and project phases have the following status:	Project Accounting	NR	NR	NR	PC			
PAGE-1182	Active	Project Accounting	F	F	F	PC			
PAGE-1183	Inactive	Project Accounting	F	F	F	PC			
PAGE-1184	Pending (Current post-financial transactions)	Project Accounting	F	F	F	PC			
PAGE-1185	Completed	Project Accounting	F	F	F	PC			
PAGE-1186	Project Accounting	Project Accounting	F	F	F	PC			

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Effort	Complexity	Dependencies	Notes
PUR.GEN	1211 The system must allow users to search and select the supporting documents and transactions within the purchasing system in real time.	Purchasing	General	F	F	PO		
PUR.GEN	1212 System supports a single shared vendor file between Accounts Payable and purchasing.	Purchasing	General	F	F	PO		
PUR.GEN	1213 System provides the capability to establish multiple discounts based on multiple processing rules, including means of payments e.g. workflow and display the user requested information.	Purchasing	General	F	F	AP		Onsite support of account based on payment terms. If there are any other payments are not supported then the account will be discounted and solution
PUR.GEN	1214 The system must allow users to search for the current status of a purchasing transactions at any point in the "procurement chain" e.g. workflow and display the user requested information.	Purchasing	General	F	F	PO		
PUR.GEN	1215 System can provide sourcing rules that offer based on agency or department.	Purchasing	General	F	F	PO		
PUR.GEN	1216 The system must allow users to enter the quantities and units of measure ordered.	Purchasing	General	F	F	PO		
PUR.GEN	1217 Units of measure ordered can be tracked/applied to different units of measure ordered.	Purchasing	General	F	F	PO, INV		
PUR.GEN	1218 The system must allow user to generate report on quantities and units of measure ordered.	Purchasing	General	F	F	PO		
PUR.GEN	1219 The system must have a user-friendly method to use common user defined information that requires frequent repping for user defined information (e.g. report to code, units of measure, purchase type, comments, etc.).	Purchasing	General	F	F	PO		
PUR.GEN	1220 System functionality to attach standard and user defined text to a PO header/for PO items	Purchasing	General	F	F	PO		
PUR.GEN	1221 The system must allow user to attach multiple files/documents to a PO header/for PO items. Files must include, MS Word, PDF, standard objects, image, flow CAD drawing, design drawings, etc.)	Purchasing	General	F	F	PO		
PUR.GEN	1222 The system must allow users to set required workflow approval steps for purchasing documents based on:	Purchasing	General	NR	NR			
PUR.GEN	1223 Data type	Purchasing	General	F	F	PO		
PUR.GEN	1224 Commodity code/number	Purchasing	General	F	F	PO		
PUR.GEN	1225 Item or code	Purchasing	General	F	F	PO		
PUR.GEN	1226 Multiple purchase order numbers	Purchasing	General	F	F	PO		
PUR.GEN	1228 Contract UOMs during procurement activities, for example, the same material may be procured on one UOM but stocked in another.	Purchasing	General	F	F	PO		
PUR.GEN	1229 Establish receipt test and user defined test for receipt and receipt test PO to be used for PO header.	Purchasing	General	F	F	PO, POC		
PUR.GEN	1230 Ability to set workflow targets (e.g. if we receive a requisition for a small order but ideally we would know the various steps in the workflow and have the target dates for each step).	Purchasing	General	CU	CU	PO		
PUR.VEN	1231 Vendors can be grouped by category	Purchasing	Vendor	F	F	PO		
PUR.VEN	1232 Tracking report of all purchases per vendor	Purchasing	Vendor	F	F	PO		
PUR.VEN	1233 Identifies one-time vendors	Purchasing	Vendor	F	F	PO		
PUR.VEN	1234 System prevents duplicate vendors	Purchasing	Vendor	F	F	PO		
PUR.VEN	1235 System tracks verification history including, but not limited to: POE	Purchasing	Vendor	F	F	PO		
PUR.VEN	1237 System tracks vendor insurance information	Purchasing	Vendor	F	F	PO, SLM		
PUR.VEN	1238 System tracks vendor information for each commodity code / professional service category	Purchasing	Vendor	F	F	PO		
PUR.VEN	1239 Track parent child or corporate subsidiary relationship with vendors	Purchasing	Vendor	F	F	PO		
PUR.VEN	1240 System tracks multiple vendor locations address corporate	Purchasing	Vendor	F	F	PO		
PUR.VEN	1241 Multiple addresses includes ship to, remit to, etc.	Purchasing	Vendor	F	F	PO		
PUR.VEN	1242 Track/report on all purchases against a vendor.	Purchasing	Vendor	F	F	PO		
PUR.VEN	1243 A primary vendor can be set as the default for each class (like commodity code or professional service category) or at a part number level.	Purchasing	Vendor	F	F	PO		
PUR.VEN	1244 A low one master vendor file for all modules in the system	Purchasing	Vendor	F	F	PO		
PUR.VEN	1245 Capability to provide commentary about suppliers and attach codes/material/service category.	Purchasing	Vendor	F	F	PO, SLM		
PUR.VEN	1246 Track what vendors are approved for what commodity codes/material/service category.	Purchasing	Vendor	F	F	PO, SD		
PUR.VEN	1247 Ability to search vendor files with wildcards	Purchasing	Vendor	F	F	PO		
PUR.VEN	1248 System flag name "Vendor TACID" to identify vendors who have active flag, last date vendor utilized preferred vendor flag and Dun and Bradstreet number.	Purchasing	Vendor	F	F	PO		
PUR.VEN	1249 Tracks vendor V9 and D99 information	Purchasing	Vendor	F	F	PO		
PUR.VENPER	1250 The system tracks vendor performance including:	Purchasing	Vendor	NR	NR			
PUR.VENPER	1251 On-time delivery	Purchasing	Vendor	F	F	PO		
PUR.VENPER	1252 PO compliance	Purchasing	Vendor	F	F	PO, SLM		
PUR.VENPER	1253 Accuracy of order	Purchasing	Vendor	F	F	PO		
PUR.VENPER	1254 Percent of damaged	Purchasing	Vendor	F	F	PO		
PUR.VENPER	1255 Invoicing problems	Purchasing	Vendor	F	F	PO, AP		
PUR.VENPER	1256 Number of complaints	Purchasing	Vendor	F	F	PO, SLM		
PUR.VENPER	1257 Responsiveness in resolving conflicts	Purchasing	Vendor	F	F	PO, SLM		
PUR.VENPER	1258 Track performance for both parent and child or corporate subsidiary for vendor record	Purchasing	Vendor	F	F	PO		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	System	Software	Hardware	Network	Other
PUR.VENPR	1259 Buyer can collaborate with a supplier on purchase order delivery dates.	Purchasing	F	F	F	F	F	F	F	PO, ISP
PUR.VENPR	1260 Historical tracking of supplier performance criteria, including critical data on fulfillment satisfaction, delivery commitments	Purchasing	F	F	F	F	F	F	F	PO, SLM
PUR.VENPR	1261 Multi-year statistical performance data	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1262 Rejected salvaged in number and dollar value	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1263 Average of early days and late days delivery	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1264 Analyzes suppliers' PO fulfillment performance based on significant data points such as cost or price and quality	Purchasing	F	F	F	F	F	F	F	PO, SLM, PSBE
PUR.VENPR	1265 Maintains quality ratings of supplier products and performance	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1266 Vendor rating statistics are automatically updated and reported	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1267 Multiple search criteria for vendor performance data	Purchasing	F	F	F	F	F	F	F	PO, PSBE
PUR.VENPR	1268 Workflow approval for change made during vendor self-service	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1269 Vendor self-service capabilities allows vendors to perform the following functions:	Purchasing	F	F	F	F	F	F	F	NR
PUR.VENSS	1270 Register with County	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1271 Registration with the County may set-off other business rules (for example with the hospital and Forest Preserve)	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1272 Change address	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1273 Update email address	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1274 Identify appropriate email address or addresses for purchase orders, bids, other notifications, etc.	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1275 Add alternate address and all information for alternate site	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1276 Confirm vendor certification category	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1277 Specify shipping methods, item references and conditions	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1278 Identify in listing part of preference category (preferred vendor)	Purchasing	F	F	F	F	F	F	F	SP, SLM
PUR.VENSS	1279 Indicate type of work offered	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1280 Contact information (phone, web, email, website, fax)	Purchasing	F	F	F	F	F	F	F	SP, SLM, No. m. talions
PUR.VENSS	1281 Two additional fields, Please state limitations	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1282 Submit bids electronically	Purchasing	F	F	F	F	F	F	F	SP, SO
PUR.VENSS	1283 System allows for multiple self-service user accounts for each vendor	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1284 Vendors view the following through vendor self-service:	Purchasing	F	F	F	F	F	F	F	NR
PUR.VENSS	1285 Open purchase orders	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1286 Active Solicitations, RFQ, RFI, etc.	Purchasing	F	F	F	F	F	F	F	SP, SO
PUR.VENSS	1287 Status of quotes/bids/proposals submitted (link to final bid/contract award, etc.)	Purchasing	F	F	F	F	F	F	F	SP, SO
PUR.VENSS	1288 Status of invoice payments	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1289 Electronic contractual information	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1290 Electronic invoicing	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1291 Ability to see purchase order payments and balances	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1292 Messages to select vendors	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1293 Messages between supplier and County buyer	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1294 Active contracts	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1295 Supplier initiated contact information fields that require vendor verification	Purchasing	F	F	F	F	F	F	F	SP, PO
PUR.VENSS	1296 Vendor can self-certify or confirm vendor certification category (MBE/WBE, etc.) (one business, women owned, disadvantaged, etc.) in an annual bid	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1297 Supplier vendor status but restricted edit to PO, Bid, etc.	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1298 Track vendor status as preferred, pre-approved, certified, etc.	Purchasing	F	F	F	F	F	F	F	SP, SLM
PUR.VENSS	1299 Provide verification of vendor address (link to ship to location)	Purchasing	F	F	F	F	F	F	F	SP, PO
PUR.VENSS	1300 Ability for vendor to set themselves up for electronic invoicing	Purchasing	F	F	F	F	F	F	F	SP
PUR.VENSS	1301 Vendor can access when POs get paid	Purchasing	F	F	F	F	F	F	F	SP
PUR.REQ	1302 Ability to provide for multiple lines of input per individual requirement.	Purchasing	F	F	F	F	F	F	F	IPRO
PUR.REQ	1303 Automatically assigns requisition number	Purchasing	F	F	F	F	F	F	F	IPRO
PUR.REQ	1304 Codes under business purchase order context	Purchasing	F	F	F	F	F	F	F	IPRO
PUR.REQ	1305 Ability to perform the following requisition functions with the appropriate security:	Purchasing	F	F	F	F	F	F	F	NR

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Category	Priority	Impact	Dependencies	Notes
PUR.REQ.1305	Purchasing	Buyer Add	F	F	PRRO		
PUR.REQ.1306	Purchasing	Change	F	F	PRRO		
PUR.REQ.1307	Purchasing	Cancel	F	F	PRRO		
PUR.REQ.1308	Purchasing	Cancel	F	F	PRRO		
PUR.REQ.1309	Purchasing	Cancel	F	F	PRRO		
PUR.REQ.1310	Purchasing	Cancel	F	F	PRRO		
PUR.REQ.1311	Purchasing	System archive of purged procurement documents (unit price can accommodate 999 999 9999 including 4 to light of the default)	F	F	PRRO		
PUR.REQ.1312	Purchasing	System archive of purged procurement documents (unit price can accommodate 999 999 9999 including 4 to light of the default)	F	F	PRRO		
PUR.REQ.1313	Purchasing	System archive of purged procurement documents (unit price can accommodate 999 999 9999 including 4 to light of the default)	F	F	PRRO		
PUR.REQ.1314	Purchasing	System archive of purged procurement documents (unit price can accommodate 999 999 9999 including 4 to light of the default)	F	F	PRRO		
PUR.REQ.1315	Purchasing	System archive of purged procurement documents (unit price can accommodate 999 999 9999 including 4 to light of the default)	F	F	PRRO		
PUR.REQ.1316	Purchasing	Ability to handle reverse logistics	F	F	PRRO		
PUR.REQ.1317	Purchasing	Ability to handle reverse logistics	F	F	PRRO		
PUR.REQ.1318	Purchasing	Notes can be entered at header and line item level on requisition that approver can use	F	F	PRRO		
PUR.REQ.1319	Purchasing	Requirer can attach files to requisition at header level files can be entered at header and line item level on requisition	F	F	PRRO		
PUR.REQ.1320	Purchasing	Requirer can attach files to requisition at header level files can be entered at header and line item level on requisition	F	F	PRRO		
PUR.REQ.1321	Purchasing	Split and allocate amount on single line to multiple accounts by	F	F	PRRO		
PUR.REQ.1322	Purchasing	Percentage	F	F	PRRO		
PUR.REQ.1323	Purchasing	Percentage	F	F	PRRO		
PUR.REQ.1324	Purchasing	System limit accounts that requisitor is available to change to by role/department multiple accounts tie to user	F	F	PRRO		
PUR.REQ.1325	Purchasing	Editable changing objects on requisitions prior to attachment to requisition	F	F	PRRO		
PUR.REQ.1326	Purchasing	Multiple line items on purchase requisition can default account information from header or allow account information to be changed in (with approval)	F	F	PRRO		
PUR.REQ.1327	Purchasing	How line items to be entered and updated	F	F	PRRO		
PUR.REQ.1328	Purchasing	A requisition requires requisitor to be connected for routine purchases	F	F	PRRO		
PUR.REQ.1329	Purchasing	System alert when bill level requisites or attaching level purchase orders	F	F	PRRO		
PUR.REQ.1330	Purchasing	A low purchase requisition template to be created from purchase orders	F	F	PRRO		
PUR.REQ.1331	Purchasing	Purchase orders can be created automatically	F	F	PRRO		
PUR.REQ.1332	Purchasing	System budget checks and pre-encumbers requisition at the line item level	F	F	PRRO		
PUR.REQ.1333	Purchasing	System routes purchase requisition for approval according to item level	F	F	PRRO		
PUR.REQ.1334	Purchasing	Total dollar amount	F	F	PRRO		
PUR.REQ.1335	Purchasing	Chart of Accounts	F	F	PRRO		
PUR.REQ.1336	Purchasing	Accounting	F	F	PRRO		
PUR.REQ.1337	Purchasing	Accounting	F	F	PRRO		
PUR.REQ.1338	Purchasing	Accounting	F	F	PRRO		
PUR.REQ.1339	Purchasing	Requesting department	F	F	PRRO		
PUR.REQ.1340	Purchasing	Requesting department	F	F	PRRO		
PUR.REQ.1341	Purchasing	Requesting department	F	F	PRRO		
PUR.REQ.1342	Purchasing	Mail trail for approved/rejected requisitions including date/time	F	F	PRRO		
PUR.REQ.1343	Purchasing	Ability to notify or ignore when requisitions have been rejected	F	F	PRRO		
PUR.REQ.1344	Purchasing	Requisition to move forward after pre-defined amount of time	F	F	PRRO		
PUR.REQ.1345	Purchasing	Requisition to be forwarded to alternate approver after pre-defined amount of time	F	F	PRRO		
PUR.REQ.1346	Purchasing	Requisition to provide alert after pre-defined amount of time	F	F	PRRO		
PUR.REQ.1347	Purchasing	Both business and knowledge workers of workflow approval	F	F	PRRO		
PUR.REQ.1348	Purchasing	Approver to designate alternate approver using effective start and end date	F	F	PRRO		
PUR.REQ.1349	Purchasing	System can automatically assign buyer to purchase requisition based on commodity code	F	F	PRRO		
PUR.REQ.1350	Purchasing	Buyer can override buyer assignment	F	F	PRRO		
PUR.REQ.1351	Purchasing	Buyer can override buyer assignment	F	F	PRRO		
PUR.REQ.1352	Purchasing	Buyer can override buyer assignment	F	F	PRRO		
PUR.REQ.1353	Purchasing	Buyer can override buyer assignment	F	F	PRRO		
PUR.REQ.1354	Purchasing	Buyer can override buyer assignment	F	F	PRRO		
PUR.REQ.1355	Purchasing	Perform buyer deal moves in batch mode	F	F	PRRO		
PUR.REQ.1356	Purchasing	Buyer can designate alternate buyer in the case of absence	F	F	PRRO		
PUR.REQ.1357	Purchasing	System allows users to cancel requisition before it is approved	F	F	PRRO		
PUR.REQ.1358	Purchasing	Buyer can choose to cancel entire requisition or just individual line items	F	F	PRRO		
PUR.REQ.1359	Purchasing	Cancelled requisitions or cancelled requisition line items release pre-accumulated information per vendor and item and applies to purchase requisition	F	F	PRRO		
PUR.REQ.1360	Purchasing	Buyer can override discount information	F	F	PRRO		
PUR.REQ.1361	Purchasing	Discounts applied both at total and line item levels	F	F	PRRO		
PUR.REQ.1362	Purchasing	Ability to assign a requisition to a project	F	F	PRRO		
PUR.REQ.1363	Purchasing	Ability to create requisition for a particular work order and task	F	F	PRRO		
PUR.REQ.1364	Purchasing	Req/Quote documents can be created directly from a single or multiple requisition(s)	F	F	PRRO		
PUR.REQ.1365	Purchasing	Email prompt for action or confirmation to parties affected when requisition completes next step in the workflow approval process	F	F	PRRO		
PUR.REQ.1366	Purchasing	Requisition completion step in the workflow approval process has been made that needs re-approval	F	F	PRRO		
PUR.REQ.1367	Purchasing	Change status of requisition when the next step in the process is complete	F	F	PRRO		
PUR.REQ.1368	Purchasing	Change status of requisition when the next step in the process is complete	F	F	PRRO		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Category	Priority	Phase	Start	End	Impact	Effort	Resources	Notes
1369	PUR.REQ	All bid to archive / purge procurement documents when they are deleted from the system	Purchasing	F	F	PO	PO				
1370	PUR.REQ	All bid to call a purged procurement document	Purchasing	CU	CU	PO	PO				
1371	PUR.REQ	All bid to call a purged procurement document from their physical bid destination for the purpose of capturing value or proper disposal automatically.	Purchasing	CU	CU	PO	PO				
1372	PUR.REQ	All bid to modify charging objects (act. W/O dept. etc.) on a bid until the point that they are submitted to a PO	Purchasing	F	F	PRD	PRD				Work low Modification
1373	PUR.REQ	All bid to allow a bid to be approved or disapproved	Purchasing	F	F	PO	PO				
1374	PUR.REQ	Automatically create material / service master based on user entered / procurement request and apply the appropriate parameters like Commodity Code Buyer Code Procurement Union. Preferred list designation flag for comp line review flag for risk mgmt. review etc.	Purchasing	CU	CU	PO	PO				
1375	PUR.REQ	All bid to track historical changes on bid.	Purchasing	F	F	PRD	PRD				
1376	PUR.REQ	All bid to perform buyer desk moves for assign PO from one buyer to another) in batch mode	Purchasing	F	F	PO	PO				
1377	PUR.REQ	All bid to be an Account/AVO with a Project	Purchasing	F	F	PO	PO				
1378	PUR.REQ	All bid to be an Account/AVO with a Project	Purchasing	CU	CU	PO	PO				
1379	PUR.REQ	Change status of a requisition when the next step in the process is complete	Purchasing	F	F	PRD	PRD				
1380	PUR.REQ	Forecast the product reorder date (determined by stock)	Purchasing	CU	CU	PO	PO				
1381	PUR.REQ	Automated for flag creation	Purchasing	F	F	PO	PO				
1382	PUR.REQ	Flag creation from a Reg to a PO	Purchasing	F	F	PO	PO				
1383	PUR.REQ	Flag creation from a Reg to a PO	Purchasing	F	F	PO	PO				
1384	PUR.REQ	All bid to register vendors for bid list and include their preferred vendor of communication (regular mail email or vendor self)	Purchasing	F	F	PO	PO				
1385	PUR.REQ	Saves contract terms for creation of applications in the system	Purchasing	F	F	PO	PO				
1386	PUR.REQ	Vendors self-register to be able to submit bids	Purchasing	F	F	PO	PO				
1387	PUR.REQ	Vendors self-register to be able to submit bids	Purchasing	F	F	PO	PO				
1388	PUR.REQ	Commodity code	Purchasing	F	F	PO	PO				
1389	PUR.REQ	Service / Product type	Purchasing	F	F	PO	PO				
1390	PUR.REQ	Department issuing bid / solicitation	Purchasing	CU	CU	PO	PO				
1391	PUR.REQ	Other user defined values	Purchasing	CU	CU	PO	PO				
1392	PUR.REQ	Vendors can submit questions / clarify requests for bid/quote/proposal portal that are to specific RF	Purchasing	F	F	PO	PO				
1393	PUR.REQ	Buyer can reply to vendor question via bid/quote/proposal portal to quote/bid/proposal for all vendors	Purchasing	F	F	PO	PO				
1394	PUR.REQ	Vendor can register to bid list and view all open solicitations	Purchasing	F	F	PO	PO				
1395	PUR.REQ	Vendors can log on to self service and view all open solicitations	Purchasing	F	F	PO	PO				
1396	PUR.REQ	Vendors can log on to self service and view upcoming solicitations	Purchasing	F	F	PO	PO				
1397	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1398	PUR.REQ	Commodity code	Purchasing	F	F	PO	PO				
1399	PUR.REQ	Location of vendor (City/State)	Purchasing	CU	CU	PO	PO				
1400	PUR.REQ	Service / Product type	Purchasing	F	F	PO	PO				
1401	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1402	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1403	PUR.REQ	All bid to line items award bids to different vendors	Purchasing	F	F	PO	PO				
1404	PUR.REQ	Creation of an electronic RF template and bid process with pre determined fill fields	Purchasing	F	F	PO	PO				
1405	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1406	PUR.REQ	Standard contract terms and conditions (multiple)	Purchasing	F	F	PO	PO				
1407	PUR.REQ	Standard contract terms and conditions (multiple)	Purchasing	F	F	PO	PO				
1408	PUR.REQ	Standard contract terms and conditions (multiple)	Purchasing	F	F	PO	PO				
1409	PUR.REQ	Standard contract terms and conditions (multiple)	Purchasing	F	F	PO	PO				
1410	PUR.REQ	Standard contract terms and conditions (multiple)	Purchasing	F	F	PO	PO				
1411	PUR.REQ	Other documents that are uploaded into system	Purchasing	F	F	PO	PO				
1412	PUR.REQ	Large documents (>200MB) such as CAD drawings that are uploaded into system	Purchasing	F	F	PO	PO				
1413	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1414	PUR.REQ	System for creation of QR/BID button via by:	Purchasing	F	F	PO	PO				
1415	PUR.REQ	System allows submission of bids up until pre-determined date	Purchasing	F	F	PO	PO				
1416	PUR.REQ	Bids can be encrypted until bid closing date and time and opened only by authorized users with date of opening tracked by the system	Purchasing	F	F	PO	PO				
1417	PUR.REQ	System allows vendors to submit revised bid prior to bid opening	Purchasing	F	F	PO	PO				
1418	PUR.REQ	System allows vendors to submit revised bid prior to bid opening	Purchasing	F	F	PO	PO				
1419	PUR.REQ	System can automatically return un-opened bids based on	Purchasing	F	F	PO	PO				
1420	PUR.REQ	System allows vendors to submit multiple bids	Purchasing	F	F	PO	PO				
1421	PUR.REQ	System allows vendors to submit alternate bids	Purchasing	CU	CU	PO	PO				
1422	PUR.REQ	System can record and maintain time date of submitted bids	Purchasing	F	F	PO	PO				
1423	PUR.REQ	System provides look to tabulate and make bids	Purchasing	F	F	PO	PO				
1424	PUR.REQ	System can rank bids by ability to meet pre-determined criteria	Purchasing	F	F	PO	PO				
1425	PUR.REQ	System can screen bids falling to meet minimum qualifications	Purchasing	F	F	PO	PO				

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Frequency	Phase	Start	End	Unit	Value
1425	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1426	Review a solicitation (e.g. RFP, RFQ) through approval workflow designed uniquely per each county agency with in-step validation points.	Purchasing	F	F	F	SO				
1427	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1428	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1429	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1430	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1431	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1432	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1433	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1434	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1435	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1436	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1437	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1438	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1439	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1440	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1441	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1442	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1443	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1444	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1445	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1446	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1447	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1448	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1449	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1450	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1451	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1452	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1453	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1454	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1455	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1456	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1457	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1458	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1459	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1460	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1461	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1462	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1463	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1464	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1465	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1466	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1467	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1468	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1469	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1470	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1471	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1472	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1473	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1474	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1475	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				
1476	System tracks and maintains history of all bids.	Purchasing	F	F	F	SO				

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Effort	Complexity	Dependencies	Notes
1477	System notifies users when thresholds are approached (example: total contract amount, amount of phase, etc.)	Purchasing	F	F	F	F	PO	
1478	Creation of master contracts that can have several associated sub contracts (e.g. multiple awards, etc.)	Purchasing	F	F	F	F	PO, PO	
1479	System tracks insurance data for a contract including expiration dates with notification	Purchasing	F	F	F	F	PO, PO	
1480	Track maximum and notifications for contract payments approaching a certain level or percentage and the expiration date with notification	Purchasing	F	F	F	F	PO, PO	
1481	Does not allow exceeding contract target value with each PO release against a master contract	Purchasing	F	F	F	F	PO	
1482	System identifies related contracts (old contract, replacement contract)	Purchasing	F	F	F	F	PO	
1483	System tracks amount for contract renewals for total contract and/or by each renewal	Purchasing	F	F	F	F	PO	
1484	Ability to track historical changes to a contract and record them in contract amendments.	Purchasing	F	F	F	F	PO	
1485	System allows parent/child relationship for contracts (e.g. requisitions, payment and vendor detail associated with contract)	Purchasing	F	F	F	F	PO	
1486	System allows parent/child relationship for contracts	Purchasing	F	F	F	F	PO, PO	
1487	Change status of a contract when the next step in the process is complete	Purchasing	F	F	F	F	PO, PO	
1488	Ability to configure contracts to require re-approval once certain fields are changed on a contract	Purchasing	F	F	F	F	PO, PO	
1489	The trigger for workflow approval process once a contract line is changed	Purchasing	F	F	F	F	PO, PO	
1490	Vendor Supplier Managed Inventory procurement methodology with Schedule Agreements in the future.	Purchasing	F	F	F	F	PO, INV	
1491	At least 50,000 items on a master contract.	Purchasing	F	F	F	F	PO	
1492	Ability to issue PO releases against a master contract.	Purchasing	F	F	F	F	PO	
1493	Ability to suggest an existing and valid contract for a procured part or service.	Purchasing	F	F	F	F	PO	
1494	Ability to search on contracts with designation of key fields like vendor contract number, target value, etc.	Purchasing	F	F	F	F	PO, PO	
1495	Ability to establish contracts for materials or services.	Purchasing	F	F	F	F	PO, PO	
1496	Does not allow exceeding contract target value with each PO	Purchasing	F	F	F	F	PO	
1497	Ability to search through and review existing contracts based on search criteria (select a contract and close/copy it as a starting point for a new procurement request/req/contract)	Purchasing	F	F	F	F	PO	
1498	Ability to track historical changes to a contract and record them in contract amendments.	Purchasing	F	F	F	F	PO	
1499	Provides a parent-child vendor set up on a vendor master and reporting capability tied to parent/child relationships.	Purchasing	F	F	F	F	PO	
1500	Identifies common terms (e.g. valid for all contract items)	Purchasing	F	F	F	F	PO, PO	
1501	Defines normal contract and special contract types	Purchasing	F	F	F	F	PO, PO	
1502	Contract effectively date (start and end)	Purchasing	F	F	F	F	PO, PO	
1503	Contract terms may specify ranges for delivery dates and quantities	Purchasing	F	F	F	F	PO	
1504	Price and discounts may be applied to the order total of the contract	Purchasing	F	F	F	F	PO, PO	
1505	Users may choose to print an acknowledgment of the contract	Purchasing	F	F	F	F	PO	
1506	Purchase contract history may be archived but be available for a recall	Purchasing	F	F	F	F	PO	
1507	Ability to track history (historically) for a purchase order line based on a link to requisitions.	Purchasing	F	F	F	F	PO	
1508	Drills down from contracts to requests for bid or proposal level	Purchasing	F	F	F	F	PO	
1509	Tracks and flags contract expiration or extension dates, with triggers alerts based on user-defined thresholds when a certain dollar amount of the contract is consumed (e.g. 75% or when a contract is about to expire (e.g. 30 days prior)	Purchasing	F	F	F	F	PO	
1511	Allows various contract periods including multiple year contracts	Purchasing	F	F	F	F	PO	
1512	Closes and re-open contract across fiscal years	Purchasing	F	F	F	F	PO	
1513	Ability to send messages with a prompt for status or confirmation (e.g. contract is about to expire, contract completes the next step in the workflow approval process)	Purchasing	F	F	F	F	PO, PO	
1514	Change status of a contract when the next step in the process is complete	Purchasing	F	F	F	F	PO, PO	
1515	Ability to create/modify/delete a Contract	Purchasing	F	F	F	F	PO	
1516	Ability to configure contracts to require re-approval once certain fields are changed on a contract.	Purchasing	F	F	F	F	PO, PO	
1517	Ability to trigger a workflow approval process once a contract is approved	Purchasing	F	F	F	F	PO, PO	
1518	Ability to invoke Supplier Managed Inventory procurement methodology with Schedule Agreements in the future.	Purchasing	F	F	F	F	PO, INV	
1519	Ability to generate sole source contracts.	Purchasing	F	F	F	F	PO	
1520	Ability to generate comparative government contracts (page/bid) contracts	Purchasing	F	F	F	F	PO	This is a generic contract word of have a get recorded in the system manually or through an import process.

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	Source	PO	F	F	PO	MS
1521	Ability to generate POs under existing GPO contracts	Purchasing	Low	High	Contract Administration	PO	F	F	PO	MS
1522	Ability to create a purchase order directly from purchase requisition	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1523	Ability to create a purchase order from an existing requisition	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1524	Ability to merge multiple requisitions into single PO to be sent to vendor	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1525	Ability to create purchase order from requisition	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1526	Multiple departments can purchase from blanket purchase order (if allowed)	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1527	System restricts unauthorized departments from accessing requisition	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1528	System restricts unauthorized departments from creating and adding purchase orders	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1529	A low multiple purchase requisitions from one department or multiple departments to be combined onto one purchase order	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1530	Split one purchase requisition into multiple purchase orders	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1531	Split and allocate amount on single line item to multiple accounts by	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1532	Daily account	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1533	Permitting	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1534	Ability to insert and sort line items on a requisition before submission for approval	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1535	Creation of purchase order releases pre-conditions from requisition for approval	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1536	Ability to generate Bill to and ship to information automatically with secondary or internal delivery location(s).	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1537	System allows attaching comments to purchase orders	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1538	System allows attaching comments to purchase requisitions to query system to determine the approval status for the purchase order	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1539	Auto-approval of purchase order based on predetermined set of criteria	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1540	System provides notification to requester when purchase order is created or rejected	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1541	Requisition detached and funds released upon purchase order creation	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1542	Requisition detached and funds released upon purchase order creation	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1543	System allows purchase orders to be reprinted or re-ent	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1544	System identifies purchase orders as duplicate	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1545	Ability to support electronic (on-line) or fax capabilities for purchase orders and other vendor/procurement functions.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1546	System identifies revised purchase orders and indicates a change that has been made	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1547	Ability to record and maintain history of purchases, commodities	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1548	Ability to track with a PO based for unauthorized orders. Requirement to maintain records on what users can change to what degree.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1549	Ability to maintain records on what users can change to what degree.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1550	Ability to maintain records with valid and legitimate Bill to and Ship to locations per each Agency and/or site.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1551	Ability to auto-approve a PO based on a certain set of criteria.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1552	Ability to automatically detach a Req and release funds upon PO creation	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1553	Upon PO creation delivery Dates can be adopted from a Req but can be adjusted manually by a buyer. If Auto PO is used then system can automatically calculate delivery times and dates connected to the line item, but separately identifiable and reportable	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1554	Ability to track non-recurring charges associated with a line item of a purchase order, such as tooling or setup charges. Should be connected to the line item, but separately identifiable and reportable	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1555	Purchasing history is accessible in real time by supplier or part	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1556	Buyer queue is refreshed in real-time and reflects Req to be placed, display Req priority, etc. and allows for buyer notes	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1557	A buyer can sort a queue by supplier material need date, etc.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1558	Ability to sort POs by buyer name or buyer ID material commodity codes, date, etc.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1559	Ability to sort POs by buyer name or buyer ID material commodity codes, date, etc.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1560	Reports shortages and schedule information to suppliers in real time.	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1561	Supplier and item data may be set as default upon placing POs	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1562	Ability to track the vendor's purchase number (if applicable)	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1563	Ability to associate purchase material with material descriptions provided by a vendor (Vendor part number).	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1564	Provides control of default order type, order series, and warehouse code	Purchasing	Low	High	Purchasing	PO	F	F	PO	
1565	Ability to track PO placement; results of vendors by item approved as alternate suppliers	Purchasing	Low	High	Purchasing	PO	F	F	PO	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Category	Priority	Impact	PO Type
PUR-PO 1565	Ability to tie a PO to a contract and project number line item	Purchasing	F	F	PO, PO
PUR-PO 1567	Order line and customer order line can be split for multiple shipments and they accumulate first then one action	Purchasing	F	F	PO
PUR-PO 1568	Individual POs can handle more than one item	Purchasing	F	F	PO
PUR-PO 1569	Individual components may be added for multiple lead times	Purchasing	F	F	PO, NV
PUR-PO 1570	Ability to set a PO for drop-ship direct shipments special order	Purchasing	F	F	PO, NV
PUR-PO 1571	Ability to set a PO for drop-ship direct shipments special order	Purchasing	F	F	PO, NV
PUR-PO 1572	Automatic update of an item's record based on the item's most recent purchase price	Purchasing	F	F	PO, NV
PUR-PO 1573	Price adjustments based on quantity/volume discounts and effective dates	Purchasing	F	F	PO
PUR-PO 1574	Ability to maintain price tables and discounts based on a percentage or fixed amount	Purchasing	F	F	PO
PUR-PO 1575	Ability to maintain price tables and automatically calculate PO prices	Purchasing	F	F	PO
PUR-PO 1576	Departments can request changes with appropriate security to existing purchase orders through workflow	Purchasing	F	F	PO
PUR-PO 1577	Any open purchase order can be modified by change order	Purchasing	F	F	PO
PUR-PO 1578	Buyers can add or insert additional lines to purchase orders	Purchasing	F	F	PO
PUR-PO 1579	Buyers can add or insert additional lines to purchase orders	Purchasing	F	F	PO
PUR-PO 1580	Departments can initiate request for a change to purchase order	Purchasing	F	F	PO
PUR-PO 1581	Increase quantity or amount	Purchasing	F	F	PO
PUR-PO 1582	Decrease quantity or amount	Purchasing	F	F	PO
PUR-PO 1583	Cancel the item	Purchasing	F	F	PO
PUR-PO 1584	Add line items	Purchasing	F	F	PO
PUR-PO 1585	Change of start of account code	Purchasing	F	F	PO
PUR-PO 1586	Extension of termination date	Purchasing	F	F	PO
PUR-PO 1587	End point order number	Purchasing	F	F	PO
PUR-PO 1588	Vendor changes (vendors vendor name change windows gifting)	Purchasing	F	F	PO
PUR-PO 1589	Vendors can be modified on existing purchase order	Purchasing	F	F	PO
PUR-PO 1590	Ability to track historical data regarding purchase order changes	Purchasing	F	F	PO
PUR-PO 1591	Different changes require different workflow (start of account)	Purchasing	F	F	PO
PUR-PO 1592	Require approval for change orders over a user-defined percentage of the original amount	Purchasing	F	F	PO
PUR-PO 1593	Changes to existing purchase orders for increase in quantity or amount follow original requisition or purchase order approval	Purchasing	F	F	PO
PUR-PO 1594	Changes for existing purchase orders for increase in quantity can be attached to existing purchase order	Purchasing	F	F	PO
PUR-PO 1595	Changes to existing purchase orders for decrease in quantity or amount follow original requisition or purchase order approval	Purchasing	F	F	PO
PUR-PO 1596	Request to change purchase order per-encumbers funds	Purchasing	F	F	PO
PUR-PO 1597	Approval of changes to per-encumbers funds or decrease encumbrance of funds	Purchasing	F	F	PO
PUR-PO 1598	Printing of modified purchase order clearly blank that purchase order has been changed	Purchasing	F	F	PO
PUR-PO 1599	Purchase order amendments clearly identify a modification has been made	Purchasing	F	F	PO
PUR-PO 1600	Purchase order identifies information that was changed on header and line item	Purchasing	F	F	PO
PUR-PO 1601	System alert fees revised purchase orders and indicates a change that has been made	Purchasing	F	F	PO
PUR-PO 1602	Comments on original purchase order - all information and comments on original purchase order are reproduced on modified purchase order	Purchasing	F	F	PO
PUR-PO 1603	Purchase orders can be printed/reported in many formats (even modified purchase order)	Purchasing	F	F	PO
PUR-PO 1604	Ability to modify vendor on an existing PO and track historical changes	Purchasing	F	F	PO
PUR-PO 1605	Ability to re-start a PO approval workflow after a change has been made that is subject to re-approval	Purchasing	F	F	PO
PUR-PO 1606	Ability to maintain balance levels for amounts on each PO	Purchasing	F	F	PO
PUR-PO 1607	Ability to require an edit flag for an additional quantity to be attached to an existing PO in cases a PO qty needs to be increased	Purchasing	F	F	PO
PUR-PO 1608	Ability to track changes/commitments to PO's a vendor	Purchasing	F	F	PO
PUR-PO 1609	Ability to track PO commitments that track first a modification has been made	Purchasing	F	F	PO
PUR-PO 1610	Ability to track PO changes in each amendment and make it available to viewing and printing	Purchasing	F	F	PO
PUR-PO 1611	Ability to track PO changes in each amendment and make it available to viewing and printing	Purchasing	F	F	PO
PUR-PO 1612	Requirement to track bid inquiries answers quotes proposals with a reference to each RF	Purchasing	F	F	PO
PUR-REC 1613	At receipt the following information is recorded:	Receiving	F	F	PO
PUR-REC 1614	Purchase order number	Receiving	F	F	PO
PUR-REC 1615	Receiving staff person ID	Receiving	F	F	PO
PUR-REC 1616	Fragnet line with tracking number	Receiving	F	F	PO
PUR-REC 1617	Quantity received	Receiving	F	F	PO
PUR-REC 1618	Quantity received	Receiving	F	F	PO
PUR-REC 1619	Full receipt/ partial receipt	Receiving	F	F	PO
PUR-REC 1620	Quantity / amount received	Receiving	F	F	PO

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Req Type	Priority	Category	Sub-Category	Business Process	System	Platform	OS	DB	Browser	Mobile	Tablet	Smart TV	Other	Notes
1621	Barcode scanning (future)	Purchasing	CU	CU	CU	Receiving	PO									MSRP (OCS) NA
1622	Acknowledgment of receipt done either by:	Purchasing	NR	NR	NR	Receiving	PO									MSRP (OCS) NA
1623	Entire purchase order	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1624	Each line item individually	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1625	Partial receipt of each warehouse as per the purchase order	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1626	Partial receipt of each warehouse as per the purchase order quantity, unit/date shipments)	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1627	System can accept advance shipping notices from vendors online	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1628	Partial receipt or partial payment of purchase order releases	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1629	Receiver or other user has option on partial receipt to release remaining amount of purchase order	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1630	Ability to handle bar code scanning for received items in the future.	Purchasing	CU	CU	CU	Receiving	PO									MSRP (OCS) NA
1631	Provide quality inspection capabilities at point of receipt.	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1632	System generates a prompt for inspection defect checking or lab	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1633	Ability to receive and show the actual received qty (vs. order qty) as long as the qty is within PO tolerance levels.	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1634	Ability to configure a definition of an audit shipment.	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1635	A low non-receivable items where no receipt is expected (only order qty - received qty).	Purchasing	CU	CU	CU	Receiving	PO									MSRP (OCS) NA
1636	A low non-receivable items where no receipt is expected (only order qty - received qty).	Purchasing	CU	CU	CU	Receiving	PO									MSRP (OCS) NA
1637	Multiple POs may be grouped as a single receipt for one shipment.	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1638	User may log and report on scrap or reject goods in real time based on a choice of PO, supplier and item parameters	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1639	Flag and update with completion status when received unit of goods is not in the system.	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1640	Handle obsolescence data for material under shelf life control	Purchasing	F	F	F	Receiving	PO									MSRP (OCS) NA
1641	System allows images to be attached to inventory items in the system.	Inventory	F	F	F	General	INV									MSRP (OCS) NA
1642	System allows images to be attached to inventory items in the system.	Inventory	F	F	F	General	INV									MSRP (OCS) NA
1643	System supports a perpetual inventory process	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1644	System supports a perpetual inventory process for all or selected stock items including electronic request and approval.	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1645	User can define by item the variables used in determining order points and reorder quantities	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1646	User can define by item the variables used in determining order points and reorder quantities	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1647	Inventory can be entered manually or imported from other applications	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1648	System can accommodate items with zero dollar value and/or	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1649	System allocates purchases and stock to the following:	Inventory	NR	NR	NR	Receipt of Material	INV									MSRP (OCS) NA
1650	Chart of account distribution	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1651	Warehouses	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1652	Section of warehouse	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1653	System automatically updates inventory (re-order information at the time that a receiving report is processed)	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1654	System allows defective goods that have been received and placed in inventory to be taken out	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1655	Track converted items or other items not from purchasing system	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1656	Ability to increase inventory levels in an appropriate warehouse/storage location every time a PO item is received. Upon goods receipt/transfer an inventory should be decreased and stock on hand rechecked accordingly.	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA
1657	Provide visibility to material/qty on order (replenishment). Change their qty from 'on order' status to 'received' upon good receipt.	Inventory	F	F	F	Receipt of Material	INV									MSRP (OCS) NA

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Category	Priority	Impact	Effort	Complexity	Dependencies	Notes
1655	INV/REQ	Ability to process inventory items for return to vendor, scrap, etc.	Inventory	F	F	F	INV		
1659	INV/REQ	Upon receipt of goods or services the system shall require certain data to be filled in like city received, date/time, etc.	Inventory	F	F	F	INV		
1660	INV/REQ	System requires restricted user items to have user specified approvals before inventory can be released (i.e. controlled drug approval)	Inventory	F	F	F	INV		
1661	INV/REQ	System reserves stock items for spec. projects or work orders	Inventory	F	F	F	INV, PC		For automatic inventory items from work order, ERM work to be required. ERM is out of scope (see 1660/1661)
1662	INV/REQ	System reserves reserve parts and prevents orders from using.	Inventory	F	F	F	INV		
1663	INV/REQ	System reserves critical stock items (i.e. stock of reserved items) while keeping the remaining balance of items on reserve	Inventory	F	F	F	INV		
1664	INV/REQ	System generates D/Delivery tickets	Inventory	F	F	F	INV		
1665	INV/REQ	Ability to customize pick and ship tickets	Inventory	F	F	F	INV		
1666	INV/REQ	System can handle items into "card" or "kit" (A cart or kit consists of items which are always ordered together - for example: all supplies needed for an oil change)	Inventory	F	F	F	INV		
1667	INV/REQ	System can place a cap on the quantity of an item that can be issued to a requester during a specified time period	Inventory	F	F	F	INV		
1668	INV/REQ	Re-order quantities do not include reserved parts	Inventory	F	F	F	INV		
1669	INV/REQ	System tracks item usage	Inventory	F	F	F	INV		
1670	INV/REQ	System tracks history of item requisitions by user	Inventory	F	F	F	INV		
1671	INV/REQ	Ability to transfer inventory between departments (i.e. accounting & warehouse) received automatically by the system	Inventory	F	F	F	INV		
1672	INV/REQ	System accumulates blocking inventory requisitions based on user-defined characteristics (e.g. location does not have the so	Inventory	F	F	F	INV		
1673	INV/REQ	Permitted users from requesting items from certain warehouses	Inventory	F	F	F	INV		
1674	INV/REQ	Ability to specifically tag certain material/kit masters as "restricted use" M95 material, etc. Security requirement tied to	Inventory	F	F	F	INV		
1675	INV/REQ	Ability to tag products as stock or project material.	Inventory	F	F	F	INV		
1676	INV/REQ	Ability to explode requirements into sub-components.	Inventory	F	F	F	INV		
1677	INV/REQ	Reporting requirement for average monthly usage per material with an ability to maintain records.	Inventory	F	F	F	INV		
1678	INV/REQ	Ability to update records on user authorizations to location	Inventory	F	F	F	INV		
1679	INV/REQ	Ability to maintain records on user authorizations to list of allowed warehouses.	Inventory	F	F	F	INV		
1680	INV/REQ	System must allow users to specify an item mark-up or overhead cost to inventory items.	Inventory	F	F	F	INV		
1681	INV/REQ	System allows for mark-up to be applied on items by item bank and department by.	Inventory	F	F	F	INV		
1682	INV/REQ	System calculates and allocates cost of inventory by warehouse and department by.	Inventory	F	F	F	INV		
1683	INV/REQ	Inventory cost	Inventory	F	F	F	INV		
1684	INV/REQ	FIFO	Inventory	F	F	F	INV		
1685	INV/REQ	LIFO	Inventory	F	F	F	INV		
1686	INV/REQ	Average price (calculated value)	Inventory	F	F	F	INV		
1687	INV/REQ	Items returned to inventory after getting assigned to work order (and not used) are checked in at same price that was charged out.	Inventory	F	F	F	INV		
1688	INV/REQ	The system will support the physical inventory process to include discrepancy tracking, physical inventory count sheets, and automatic counting.	Inventory	F	F	F	INV		
1689	INV/REQ	System will support Quantity/Balance freeze for cycle counting.	Inventory	F	F	F	INV		
1690	INV/REQ	The system will provide cycle count reconciliation reports	Inventory	F	F	F	INV		
1691	INV/REQ	The system will support accrual for items received but not yet received	Inventory	F	F	F	INV		
1692	INV/REQ	System will recommend cycle count schedule based on item's user defined parameters (e.g. usage, total dollars quantity and unit cost)	Inventory	F	F	F	INV		
1693	INV/REQ	The system will flag problem items requiring additional follow-up through cycle count into cycle count based on location, ABC code (date, quantity, negative balance)	Inventory	F	F	F	INV		
1694	INV/REQ	The system will support ABC cycle counting capability	Inventory	F	F	F	INV		
1695	INV/REQ	The system will support ABC cycle counting capability	Inventory	F	F	F	INV		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Title	Description	Category	Priority	Impact	Effort	Complexity	Dependencies	Notes
INV/CYC	1696	The system will allow the assignment of reason codes for any discrepancies. These user-defined reason codes will be tied to a specific General Ledger account such as shrinkage, expired inventory, etc.	Inventory	F	F	F	NA		
INV/CYC	1697	The system will support cycle counts by random selection or by an inventory class.	Inventory	F	F	F	INV		
INV/CYC	1698	The system will allow the entry of unit cost during the counting period along with the entry of unit of measure.	Inventory	CU	CU	CU	INV		MS
INV/CYC	1699	The system will allow the entry of unit of measure from a higher item to the low item during the counting process.	Inventory	CU	CU	CU	INV		S
INV/MISC	1700	Ability to view a vendor open goods receipt based on registered invoice.	Misc.	F	F	F	AP		
INV/MISC	1701	Ability to capture inventory class on each material master.	Misc.	F	F	F	INV		
INV/MISC	1702	A tool for an automated and manual creation of material masters with product line info description, UOM, shelf life, lead time, commodity code, etc.	Misc.	F	F	F	INV		
INV/MISC	1703	Produce reporting of inactive assets or obsolete inventory.	Misc.	F	F	F	INV		
INV/MISC	1704	Provide inventory valuation reporting by business unit, dept, warehouse, etc.	Misc.	F	F	F	INV		
INV/MISC	1705	General Ledger for Inventory Adjustment Inventory cost calculation field and ledger creation of General Ledger entity and dept for each inventory location.	Misc.	F	F	F	INV, OL		
INV/MISC	1706	Ability to define storage location types: warehouse truck return location.	Misc.	F	F	F	INV		
INV/MISC	1707	Ability to locate item location: warehouse storage location, bin number, etc. (with as much detail as possible).	Misc.	F	F	F	INV		
INV/MISC	1708	Ability to maintain lot control and serial numbers by location.	Misc.	F	F	F	INV		
INV/MISC	1709	Ability to forecast demand levels based on historical forecasting methods.	Misc.	F	F	F	INV		
INV/MISC	1710	Ability to forecast demand levels with the use of various demand forecasting methods.	Misc.	F	F	F	INV		
INV/MISC	1711	Display real-time inventory available in a specific location.	Misc.	F	F	F	INV		
INV/MISC	1712	Ability to report actual or impending shortages.	Misc.	F	F	F	INV		
INV/MISC	1713	Ability to report actual or impending shortages to a specific order, ability to report to a specific order.	Misc.	F	F	F	INV		
INV/MISC	1714	Ability to adjust inventory.	Misc.	F	F	F	INV		
INV/MISC	1715	Keep track of historical changes in inventory levels in each location.	Misc.	F	F	F	INV		
INV/MISC	1716	Define business rules for overstock and under stock exceptions.	Misc.	CU	CU	CU	INV		S
INV/MISC	1717	Upon receipt of fixed assets, certain fields like commodity code, dollar amount, etc. are required.	Misc.	CU	CU	CU	INV		S
INV/MISC	1718	Capital assets to be tracked in inventory asset location, dollar amount, etc. are required.	Misc.	F	F	F	FA		
INV/MISC	1719	Capability to drop ship items.	Misc.	F	F	F	OM		
INV/MISC	1720	Capability to perform on-line auctions.	Misc.	CU	CU	CU	SD		S
INV/MISC	1721	Ability to perform reverse auctions.	Misc.	F	F	F	SD		
INV/MISC	1722	Ability to perform reverse auctions in the buying process (MFR requirements for tender point procurement), PR, would be created automatically via MRP.	Misc.	F	F	F	INV		
SW/ATT	1723	System allow attachment of documents (example: PDF, Excel, Word, JPEG) and download information in same manner.	Attachments	F	F	F	ERS		
SW/ATT	1724	System allow name document to be attached or linked to item.	Attachments	F	F	F	ERS		
SW/ATT	1725	System allow attached documents to be stored directly in system.	Attachments	F	F	F	ERS		
SW/ATT	1726	System allow documents to be stored in document management system (e.g. SharePoint).	Attachments	F	F	F	ERS		
SW/ATT	1727	System provide an indicator to inform user that there is an attachment.	Attachments	F	F	F	ERS		
SW/SEC	1728	System uses role based security where security roles are tied to users.	Security	NR	NR	NR	ERS		
SW/SEC	1729	System uses role based security where security roles are tied to users.	Security	F	F	F	ERS		
SW/SEC	1730	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1731	System allow user to be assigned to provide access/permissions on roles.	Security	NR	NR	NR	ERS		
SW/SEC	1732	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1733	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1734	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1735	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1736	System allow user to be assigned to provide access/permissions on roles.	Security	NR	NR	NR	ERS		
SW/SEC	1737	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1738	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1739	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1740	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1741	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1742	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1743	System allow user to be assigned to provide access/permissions on roles.	Security	NR	NR	NR	ERS		
SW/SEC	1744	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1745	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1746	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1747	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1748	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1749	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1750	System allow user to be assigned to provide access/permissions on roles.	Security	F	F	F	ERS		
SW/SEC	1751	System allow user to be assigned to provide access/permissions on roles.	Security	NR	NR	NR	ERS		

Exhibit 2A -3 Functional and Technical Requirements in Scope

SWIFT	Reporting	Software	ESB/OSBEE	ESB/OSBEE	ESB/OSBEE	ESB/OSBEE	ESB/OSBEE	ESB/OSBEE
1825	Reports / queries can be exported to excel	Software	F	F	F	F	F	ESB/OSBEE
1826	System provides dashboard views to give all users easy view of dashboard functions as entry point of the system	Software	F	F	F	F	F	OS/EE
1827	Dashboard view can be configured to meet individual needs of users	Software	F	F	F	F	F	OS/EE
1828	System allows users to configure their own dashboards	Software	F	F	F	F	F	OS/EE
1829	System allows users to configure their own dashboards	Software	F	F	F	F	F	OS/EE
1830	Dashboard views using graphs and charts of visual display of data	Software	F	F	F	F	F	OS/EE
1831	Dashboard views can be filtered to view data	Software	F	F	F	F	F	OS/EE
1832	Users can access information from other systems or web on dashboards	Software	F	F	F	F	F	OS/EE
1833	System will maintain employee number from applicant through signature/initials on	Human Resources	F	F	F	F	F	HR
1834	System allows to track all employees with	Human Resources	F	F	F	F	F	HR
1835	System allows to track all employees with	Human Resources	F	F	F	F	F	HR
1836	System allows to track all employees with	Human Resources	F	F	F	F	F	HR
1837	System allows to track all employees with	Human Resources	F	F	F	F	F	HR
1838	Other agencies or organizations for potential expansion in	Human Resources	F	F	F	F	F	HR
1839	County and Forest Preserve are of great legal use	Human Resources	F	F	F	F	F	HR
1840	System creates unique employee ID	Human Resources	F	F	F	F	F	HR
1841	System tracks alternate employee ID	Human Resources	F	F	F	F	F	HR
1842	System tracks alternate employee ID	Human Resources	F	F	F	F	F	HR
1843	System tracks alternate employee ID	Human Resources	F	F	F	F	F	HR
1844	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1845	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1846	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1847	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1848	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1849	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1850	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1851	System allows formation of groups of employees	Human Resources	F	F	F	F	F	HR
1852	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1853	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1854	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1855	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1856	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1857	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1858	System tracks seniority time by calendar days since most recent month (if new hire date is in first half of month get credit for full month)	Human Resources	CR	CR	CR	CR	CR	HR, OSBEE, HPFE
1859	System allows users to add time earned in another organization	Human Resources	F	F	F	F	F	HR
1860	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1861	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1862	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1863	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1864	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1865	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1866	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1867	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1868	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1869	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1870	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1871	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1872	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1873	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1874	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1875	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1876	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1877	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1878	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1879	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1880	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1881	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1882	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1883	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1884	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1885	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1886	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1887	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1888	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR
1889	System tracks productivity per day for new employees and	Human Resources	F	F	F	F	F	HR

Exhibit 2A - 3 Functional and Technical Requirements in Scope

HR-SCC	1934	Type	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1935	Awarding organization	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1936	Hourly rate	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1937	System tracks employee continuing education on requirements for certifications based on:	Human Resources	Skills, Competencies, Licenses and Certifications	HR	HR	HR	HR	HR	HR	HR
HR-SCC	1938	Hours taken in one year	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR, TL	HR, TL	HR, TL	HR, TL	HR, TL
HR-SCC	1939	Hours taken in last year since certification earned	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR, TL	HR, TL	HR, TL	HR, TL	HR, TL
HR-SCC	1940	Multi-Year period based on certification date	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1941	Credits earned	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1942	System uses certification for employees with expiring certifications	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1943	System provides notification for employees not meeting continuing education requirements	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1944	System tracks employee testing information for:	Human Resources	Skills, Competencies, Licenses and Certifications	HR	HR	HR	HR	HR	HR	HR
HR-SCC	1945	Test type (example: driving test, drug test, etc.)	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1946	Date	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1947	Score	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1948	Pass/fail	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR	HR	HR	HR	HR
HR-SCC	1949	System allows attachment of documents (including scanned copies, electronic files, etc.), such as transcript, certification, etc. for each candidate's final candidate	Human Resources	Skills, Competencies, Licenses and Certifications	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1950	Each employee is assigned to a position	Position Control	General	F	F	HR	HR	HR	HR	HR
PC-GEN	1951	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1952	Department	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1953	Division	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1954	Job code	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1955	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1956	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1957	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1958	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1959	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1960	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1961	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1962	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1963	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1964	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1965	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1966	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1967	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1968	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1969	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1970	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1971	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1972	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1973	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1974	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1975	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1976	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1977	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1978	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1979	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1980	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1981	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR
PC-GEN	1982	System tracks employee organization code by:	Position Control	General	F	F	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR	HR, SSHR

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Req Description	Category	Priority	Impact	Control	Frequency	HR	F	F	HR
1383	PC/CLAS	System prevents FTE limit from being exceeded without proper approval	Position Control	Position Control	F	HR	F	HR			
1384	PC/CLAS	System calculates backout and FTE count correctly for various methods of calculation	Position Control	Position Control	F	HR	F	HR			
1385	PC/CLAS	Employee up to 50% between two departments. FTE would be calculated based on the department. Backout would be 1.01	Position Control	Position Control	F	HR	F	HR			
1386	PC/CLAS	Employee works part time. 0 FTE in one department. FTE would be calculated based on the department	Position Control	Position Control	F	HR	F	HR			
1387	BF/GEN	System provides tools for creating what-if scenarios and forecasting impact on changing	Budgeting and Forecasting	General	HR						
1388	BF/GEN	Scenario	Budgeting and Forecasting	General	F	HR	F	HR			
1389	BF/GEN	Bandwidth	Budgeting and Forecasting	General	F	HR	F	HR			
1390	BF/GEN	Positions	Budgeting and Forecasting	General	F	HR	F	HR			
1391	BF/GEN	System stores multiple scenarios for analysis	Budgeting and Forecasting	General	F	HR	F	HR			
1392	BF/FORE	System provides ability to propose changing position status as part of budget development	Budgeting and Forecasting	Forecasting	HR						
1393	BF/FORE	Funded / Unfunded (closed)	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1394	BF/FORE	Filled / Vacant	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1395	BF/FORE	Continuation / New / Proposed	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1396	BF/FORE	System allows adding positions during budget development	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1397	BF/FORE	Identifies funding sources for positions (chart of accounts)	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1398	BF/FORE	System allows for the cost of a position to be associated to multiple departments of the Chart of Accounts (i.e. organizational costs)	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
1399	BF/FORE	Track the creation and deletion of positions during budget development	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2000	BF/FORE	A law for a position to be budgeted for a part of year	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2001	BF/FORE	The system calculates position costs based on the following user-defined parameters:	Budgeting and Forecasting	Forecasting	HR						
2002	BF/FORE	Benefits	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2003	BF/FORE	Includes costs of benefit plans (pension, medical, vision, etc.)	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2004	BF/FORE	Longevity	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2005	BF/FORE	Pay differentials	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2006	BF/FORE	Unified positions use salary and benefit costs set by	Budgeting and Forecasting	Forecasting	HR						
2007	BF/FORE	Detail benefit elections	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2008	BF/FORE	Detail step on pay scale (journeyman level)	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2009	BF/FORE	System calculates actual positions for salary and benefit budgeting for vacant positions	Budgeting and Forecasting	Forecasting	F	HR	F	HR			
2010	BF/FORE	Budget system will update the HR System after budget adoption with any changes made to budgeted position, as any data, benefits, etc.	Budgeting and Forecasting	Forecasting	F	HR	F	HR			

Exhibit 2A -3 Functional and Technical Requirements in Scope

Agency	Requirement ID	Description	Category	Priority	Impact	Notes
BENJEN	2041	Detail	General	F	F	
BENJEN	2042	Detail	General	F	F	
BENJEN	2043	Detail	General	F	F	
BENJEN	2044	Supplemental Life	General	F	F	
BENJEN	2045	Short Term / Long Term Disability	General	F	F	
BENJEN	2046	State Disability Insurance / Paid Family Leave Insurance	General	F	F	
BENJEN	2047	Retirement - County / multiple tiers based on hire date	General	F	F	
BENJEN	2048	Retirement - Forest Preserve	General	F	F	
BENJEN	2049	Defined Compensation (27 plan, Section 125)	General	F	F	
BENJEN	2050	Health Insurance	General	F	F	
BENJEN	2051	System enforces benefit plan requirements or requirements to select other plans (example: if employee elects medical, must also select dental and vision)	General	F	F	
BENJEN	2052	Benefit plan rules determined by	General	F	F	
BENJEN	2053	Beginning Unit	General	F	F	
BENJEN	2054	Payroll FTE (over 5 FTE)	General	F	F	
BENJEN	2055	Department	General	F	F	
BENJEN	2056	Department	General	F	F	
BENJEN	2057	Hire Date (County Retirement Fund)	General	F	F	
BENJEN	2058	County contribution for benefit plan determined by	General	F	F	
BENJEN	2059	Job classification	General	F	F	
BENJEN	2060	Beginning Unit	General	F	F	
BENJEN	2061	Job classification	General	F	F	
BENJEN	2062	System enforces all benefits determined by	General	F	F	
BENJEN	2063	Department	General	F	F	
BENJEN	2064	Hire Date	General	F	F	
BENJEN	2065	Hire Date	General	F	F	
BENJEN	2066	Employment status (full time, part time)	General	F	F	
BENJEN	2067	System maintains both employee and employer cost for each plan	General	F	F	
BENJEN	2068	System automatically determines employee eligibility by	General	F	F	
BENJEN	2069	Employment status (full time, part time)	General	F	F	
BENJEN	2070	Job class	General	F	F	
BENJEN	2071	Beginning Unit	General	F	F	
BENJEN	2072	Department	General	F	F	
BENJEN	2073	System provides payment to key of County medical continued care of employees with period of continuation	General	F	F	
BENJEN	2074	System provides payment to key of County medical continued care of employees with period of continuation	General	F	F	
BENJEN	2075	System enforces all benefits determined by	General	F	F	
BENJEN	2076	System enforces all benefits determined by	General	F	F	
BENJEN	2077	System enforces all benefits determined by	General	F	F	
BENJEN	2078	System enforces all benefits determined by	General	F	F	
BENJEN	2079	System enforces all benefits determined by	General	F	F	
BENJEN	2080	System enforces all benefits determined by	General	F	F	
BENJEN	2081	System enforces all benefits determined by	General	F	F	
BENJEN	2082	System tracks history of all beneficiaries and dependent changes	General	F	F	
BENJEN	2083	System does not allow duplicate entries of same dependents	General	F	F	
BENJEN	2084	System allows for split beneficiary	General	F	F	
BENJEN	2085	System allows for secondary beneficiary	General	F	F	
BENJEN	2086	System tracks the ID coming on each dependent	General	F	F	
BENJEN	2087	Social Security Number	General	F	F	
BENJEN	2088	Date of Birth	General	F	F	
BENJEN	2089	Start Date	General	F	F	
BENJEN	2090	End Date	General	F	F	
BENJEN	2091	Name	General	F	F	
BENJEN	2092	Gender	General	F	F	
BENJEN	2093	System maintains reports of benefit status approaching eligibility	General	F	F	
BENJEN	2094	State for economic dependent, disabled dependent, qualified medical support order, etc)	General	F	F	
BENJEN	2095	System tracks dependents of deceased employees (if not on job)	General	F	F	
BENJEN	2096	System tracks current and actual benefit costs including	General	F	F	
BENJEN	2097	Employer cost	General	F	F	
BENJEN	2098	Employee cost	General	F	F	
BENJEN	2099	Tenure Benefits	General	F	F	
BENJEN	2100	Pay for Benefits	General	F	F	
BENJEN	2101	System will produce a total compensation package benefits statement	General	F	F	
BENJEN	2102	For each employee	General	F	F	
BENJEN	2103	Department	General	F	F	
BENJEN	2104	System tracks actual contributions to cost	General	F	F	
BENJEN	2105	At the beginning of the year	General	F	F	
BENJEN	2106	At the beginning of each month	General	F	F	

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Description	Priority	Category	Sub-Category	Impact	Effort	Complexity	Dependencies	Notes
BEN/ENROL	2173 Contact information (addresses) and proof of all dependents' contact information should be updated	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2174 Enter and manage life changes	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2175 Adaptation/retiree dependent and spouse information	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2176 System of low usage to upload files to provide proof of changes (example: upload manager contact info)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2177 System of low usage to upload files to provide proof of changes (example: upload manager contact info)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2178 System of low usage to upload files to provide proof of changes (example: upload manager contact info)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2179 Entering in to an	NR	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2180 Identifying the dollar amount to be deducted in each pay period	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2181 Identify percentage to be deducted in each pay period	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2182 Identify if amount to be deducted at the beginning of the year	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2183 Identify percentage to be deducted at the beginning of the year	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2184 System of low usage to upload files to provide proof of changes (example: upload manager contact info)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2185 Changes made through self service are routed through workflow for approval by benefits office	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR, WF		
BEN/ENROL	2186 Employees arrive via the following information through self service	NR	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR, WF		
BEN/ENROL	2187 Current benefits (benefits eligible to employee, including covered dependents)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2188 Summary plan descriptions	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2189 Benefit forms	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2190 Benefit statements	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2191 Benefit information	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2192 Self service provides employees a link to benefit provider web sites	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2193 Employees are able to attach documentation if necessary to support self service information, or uploading the events (example: health certificate)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2194 Self service includes what I benefit on calculator that allows impact of various options	NR	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2195 Benefit plan	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2196 Deduction amount (annual and pay period)	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
BEN/ENROL	2197 Net pay per pay period	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	PAY, SSRR		
BEN/ENROL	2198 Employees can view total compensation statement through self service	F	Open Enrollment - Self Service	Open Enrollment - Self Service	F	F	AB, SSRR		
PAYSALADMIN	2199 System sends pay frequency information on job classification	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2200 Changes to salary information made with effective dating	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2201 Base salary of each job classification listed on	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2202 Base rate can be recorded in the following ways:	NR	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2203 Per year	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2204 Per hour	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2205 Per month (current)	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2206 System on tables per year and per hour rates based on per month rate	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2207 Rates can be stored for decimal places	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2208 Longevity increments in job multipliers to the base to determine salary	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2209 Salary is computed by taking the Base Pay (beginning salary grade) of the position multiplied by the Step (index rate has 29 steps)	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2210 Salary is rounded up to the nearest dollar	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2211 The Hourly Rate is computed by taking the resulting salary (Base Pay plus step) and dividing by the number of hours in the pay period (2080 and salary schedule rounding to the nearest whole penny)	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2212 System allows for multiple number of steps/grade in pay plan (Identify any limitations)	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2213 System will perform mass re-assign as pay changes to	NR	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2214 Base amounts	F	Payroll	Payroll	F	F	HR		
PAYSALADMIN	2215 Longevity steps	F	Payroll	Payroll	F	F	HR		
PAYDEDGAR	2216 System sends pay frequency information to accommodate the following types of deductions:	NR	Payroll	Payroll	F	F	HR		
PAYDEDGAR	2217 Pre-Tax	F	Payroll	Payroll	F	F	PAY		
PAYDEDGAR	2218 Federal	F	Payroll	Payroll	F	F	PAY		

Exhibit 2A -3 Functional and Technical Requirements in Scope

Requirement ID	Requirement Description	Category	Priority	Impact	Dependencies	Test Data	Test Environment	Test Scenario	Test Steps	Expected Results	Pass/Fail	Notes
PAY.DED.GAR	2219 State	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2220 Paid Tax	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2221 Federal	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2222 State	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2223 Imputed Income	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2224 Federal	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2225 State	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2226 System accommodates deductions based upon	Payroll	NR	NR	Deuctions and Garnishments	NR	NR					
PAY.DED.GAR	2227 One filing is twice	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2228 F at amount	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2229 Percent of gross	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2230 Percent of net	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2231 Percent of taxable gross	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2232 Percent of eligible pay	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2233 Percentage of any combination of salary and age (e.g. life insurance)	Payroll	F	F	Deuctions and Garnishments	F	F	ALB PAY				
PAY.DED.GAR	2234 Percentage of regular pay	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2235 Percentage of multiple pay types	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2236 System must be able to handle the following deduction requirements	Payroll	NR	NR	Deuctions and Garnishments	NR	NR					
PAY.DED.GAR	2237 One time only	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2238 Every pay period	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2239 First Pay of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2240 Second Pay of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2241 Third Pay of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2242 First Pay Per of End Date of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2243 Second Pay Per of End Date of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2244 Third Pay Per of End Date of the Month	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2245 Or cycle pay	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2246 System tracks effective dated start and stop dates for benefit deductions	Payroll	F	F	Deuctions and Garnishments	F	F	ALB PAY				
PAY.DED.GAR	2247 A law for negative earnings for items that are owed back	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2248 System will adjust deduction when the following is not reached	Payroll	NR	NR	Deuctions and Garnishments	NR	NR					
PAY.DED.GAR	2249 Minimum	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2250 Maximum	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2251 Life to Date maximum	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2252 Year to Date maximum	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2253 System will maintain amounts for emp types with deductions and garnishments greater than compensation	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2254 Option to not take deduction when compensation minimum not reached	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2255 System will provide invoice to emp types with deductions and garnishments greater than compensation (could be if amount is less than one time deduction and earnings overrides)	Payroll	CU	CU	Deuctions and Garnishments	CU	CU	AR PAY, BRUB				5
PAY.DED.GAR	2256 A law one time deduction and earnings overrides	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2257 System will add cap for emp types with net pay less than minimum	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2258 System will process multiple garnishments per employee and assign pre-defined priority	Payroll	F	F	Deuctions and Garnishments	F	F	PAY, TP, Verse				
PAY.DED.GAR	2259 System supports amounting of garnishments by priority	Payroll	F	F	Deuctions and Garnishments	F	F	PAY, TP, Verse				
PAY.DED.GAR	2260 System will add cap for garnishments and voluntary deductions to limit a certain total amount, is not exceeded	Payroll	F	F	Deuctions and Garnishments	F	F	PAY, TP, Verse				
PAY.DED.GAR	2261 Deductions and garnishments can be prior based	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2262 System tracks FIPS or other number for garnishments	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2263 System tracks the no owing garnishment dates	Payroll	NR	NR	Deuctions and Garnishments	NR	NR					
PAY.DED.GAR	2264 Begin date	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2265 Through date	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				
PAY.DED.GAR	2266 System tracks balance due	Payroll	F	F	Deuctions and Garnishments	F	F	PAY				

Exhibit 2A -3 Functional and Technical Requirements in Scope

PAY/ED/GAR	System/Process/Requirement/Title	Payroll	Deductions and Garnishments	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2267 System/Process/Requirement/Title	Payroll		F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2268 System on call/standby add-to-base and special pay amounts	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2269 Every pay period (uniform & allowance)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2270 Annual (bonus or contract drive)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2271 Special pay (Change to salary) is applied in the following ways	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2272 Percent of salary amount (base plus other special pay)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2273 Percentage of base	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2274 Flat amount increase to base per month	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2275 Special pay amounts can be set as	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2276 Percentage increase to System wage (reportable as CRS)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2277 NALCRS eligible	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2278 Supports the ability to generate additional pay/step pay based on performance	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2280 Duties performed/work location	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2282 Shift worked	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2283 Shift differential pay (not applicable for N. Virginia)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2284 System on call/standby overtime according to FLSA regulations taking into account	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2285 Special pay earned	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2286 Special pay (bonus)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2287 Shift differential applied to hours worked on special duty shift (leaving graveyard shift)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2288 Shift differential applies to hours worked in shift differential at period (e.g. between 10 PM and 5 AM)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2289 Employees need to work a set number of hours consecutively to get shift differential (minimum number of hours within shift)	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2290 Shift differential pay also tied to	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2291 All hours worked in shift	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2292 Only select hours occurring during shift differential period	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2293 Shift differential pay on call/standby	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2294 Flat amount percentage of base pay	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2295 System automatically applies imputed income for emp. oyes	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2296 System allows manual input to adjust imputed income for	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2297 System allows manual input to adjust imputed income for	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2298 System processes all training special pay	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2299 System processes all training special pay	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2300 Severance	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ED/GAR	2301 Benefit Payroll	Special Pay	Special Pay	F	F	F	F	F	PAV	PAV
PAY/ACT	2302 System will process pay for different rates based on County boundaries	Acting Pay	Acting Pay	F	F	F	F	F	PAV/HR	PAV/HR
PAY/ACT	2303 Per hour increase to hourly rate for hours worked in acting	Acting Pay	Acting Pay	F	F	F	F	F	PAV/HR	PAV/HR
PAY/ACT	2304 Flat amount increase to pay period for time worked in acting position	Acting Pay	Acting Pay	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2305 System will handle different payroll cycles	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2306 Bi-weekly	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2307 Monthly	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2308 Quarterly (Judge only)	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2309 System (Contractors)	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2310 SA-MURRY	Processing	Processing	F	F	F	F	F	PAV	PAV
PAY/PROC	2311 26 Days Pay Cycle (Sheriff, Forest Preserve, etc.)	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2312 System will reduce monthly salary amount by number of days of absence (e.g. 10 day is 10/30 of monthly salary amount)	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2313 System will process pay for one employee with multiple jobs and dependent on number of jobs held (e.g. 2 jobs is 2/30 of monthly salary amount)	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2314 System will process pay for one employee with multiple jobs and dependent on number of jobs held (e.g. 2 jobs is 2/30 of monthly salary amount)	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2315 System will process pay for one employee with multiple jobs and dependent on number of jobs held (e.g. 2 jobs is 2/30 of monthly salary amount)	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2316 Actual rate	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2317 Actual Balance	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2318 Leave taken in days	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2319 Employer paid amounts for benefits	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2320 Per pay period	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2321 YTD	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/PROC	2322 YTD	Processing	Processing	F	F	F	F	F	PAV/HR	PAV/HR
PAY/CALC	2323 System on call/standby add-to-base and special pay amounts	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2324 Special pay	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2325 Deductions/Garnishments	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2327 Over time	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2328 Compensatory Time	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2329 Other adjustments to pay	Calculations	Calculations	F	F	F	F	F	PAV, TL, COGS	PAV, TL, COGS
PAY/CALC	2331 System/Process/Requirement/Title	Payroll	Payroll	F	F	F	F	F	PAV	PAV
PAY/CALC	2332 System/Process/Requirement/Title	Payroll	Payroll	F	F	F	F	F	PAV	PAV

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Title	Description	Category	Priority	Impact	Dependencies	Notes
2333	PAY/CALC	System calculates pay processing effective dated personnel actions with date occurring during the middle of the pay period	Payroll	Calculations	F	F	PAY, HR
2334	PAY/CALC	All pay types can be prorated (example apply \$0.01 adjustment)	Payroll	Calculations	F	F	PAY
2335	PAY/CALC	Overtime can be applied to	Payroll	Calculations	F	F	PAY, TL, PAV
2336	PAY/CALC	Actual hours worked in excess of overtime rate	Payroll	Calculations	F	F	PAY, TL, PAV
2337	PAY/CALC	Average of all hours worked on FLSA period	Payroll	Calculations	F	F	PAY, TL, PAV
2338	PAY/CALC	System will calculate holiday pay based on pre-defined holiday calendar	Payroll	Calculations	F	F	PAY, TL, PAV
2339	PAY/CALC	System correctly calculates pre and post tax deductions	Payroll	Calculations	F	F	PAY
2340	PAY/RETRO	Retro pay calculation used to back date and correct for the	Payroll	Retrospective Pay	F	F	HR, PAV
2341	PAY/RETRO	Retrospective pay	Payroll	Retrospective Pay	F	F	HR, PAV
2342	PAY/RETRO	Contract signing (LIFO)	Payroll	Retrospective Pay	F	F	HR, PAV, AB
2343	PAY/RETRO	Contract time changes	Payroll	Retrospective Pay	F	F	HR, PAV, AB
2344	PAY/RETRO	Contract to Uncontract	Payroll	Retrospective Pay	F	F	HR, PAV, AB
2345	PAY/RETRO	Contract to Uncontract	Payroll	Retrospective Pay	F	F	PAY, TL, PAV
2346	PAY/RETRO	Retro pay will automatically correct	Payroll	Retrospective Pay	F	F	HR
2347	PAY/RETRO	System will automatically correct	Payroll	Retrospective Pay	F	F	HR
2348	PAY/RETRO	The contract was (total gross income tax withheld)	Payroll	Retrospective Pay	F	F	HR
2349	PAY/RETRO	System will automatically correct	Payroll	Retrospective Pay	F	F	HR
2350	PAY/RETRO	System will automatically correct	Payroll	Retrospective Pay	F	F	HR
2351	PAY/RETRO	FLSA Ca calculation (Overtime)	Payroll	Retrospective Pay	F	F	HR
2352	PAY/RETRO	System accommodates multiple compound retro pay adjustments	Payroll	Retrospective Pay	F	F	HR
2353	PAY/RETRO	System will retain previous salary and hours and days worked table	Payroll	Retrospective Pay	F	F	HR, PAV
2354	PAY/RETRO	System on calendar retro pay based upon these actions (e.g.,	Payroll	Retrospective Pay	F	F	HR, PAV
2355	PAY/RETRO	System on calendar retro pay based upon these actions (e.g.,	Payroll	Retrospective Pay	F	F	HR, PAV
2356	PAY/CHECK	System supports positive pay for payroll checks	Payroll	Check Printing	F	F	PAY
2357	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2358	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2359	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2360	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2361	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2362	PAY/CHECK	System supports positive pay for vendor checks	Payroll	Check Printing	F	F	PAY
2363	PAY/CHECK	System produces electronic files to send to bank for direct deposit	Payroll	Check Printing	F	F	PAY
2364	PAY/CHECK	System produces electronic files to multiple banks for direct deposit	Payroll	Check Printing	F	F	PAY
2365	PAY/CHECK	The system must create checks with the following items on bank	Payroll	Check Printing	F	F	PAY
2366	PAY/CHECK	MICR encoding	Payroll	Check Printing	F	F	PAY
2367	PAY/CHECK	Electronic signatures	Payroll	Check Printing	F	F	PAY, B, PUB
2368	PAY/CHECK	System will allow broadcast messages which appear on all checks	Payroll	Check Printing	F	F	PAY, B, PUB
2369	PAY/CHECK	System will allow broadcast messages which appear on all checks	Payroll	Check Printing	F	F	PAY, B, PUB
2370	PAY/CHECK	System will allow broadcast messages which appear on all checks	Payroll	Check Printing	F	F	PAY, B, PUB
2371	PAY/CHECK	System will allow broadcast messages which appear on all checks	Payroll	Check Printing	F	F	PAY, B, PUB
2372	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2373	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2374	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2375	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2376	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2377	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2378	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2379	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2380	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2381	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2382	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2383	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2384	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2385	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2386	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2387	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2388	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2389	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2390	PAY/SELF	Flow on the capability for employees to setup direct deposit to	Payroll	Self Service	F	F	PAY, SSAR
2391	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2392	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2393	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2394	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY, B, PUB
2395	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2396	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY, B, PUB
2397	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2398	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY, B, PUB
2399	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY
2400	PAY/EDY	System will produce W-2s (and to report single W-2)	Payroll	End of Year	F	F	PAY, B, PUB

Exhibit 2A -3 Functional and Technical Requirements in Scope

Req ID	Req Type	Description	Performance Evaluation	Performance Plans	PEPF	PEPF (COS)	NA	PEPF as of scope (COS) as of 7/1 /15 so this requirement is new COS	PEPF as of scope (COS) as of 7/1 /15 so this requirement is new COS	PEPF as of scope (COS) as of 7/1 /15 so this requirement is new COS
2442	PELIMP	System tracks performance for performance improvement plan period	Performance Evaluations	Performance Plans	F	F				
2443	PELIMP	Employees on performance improvement plan have merit (up/down) increase (up/down)	Performance Evaluations	Performance Plans	F	F				
2444	PELIMP	Employees moving off of performance improvement plan get productivity increase in merit and improvement plan ending	Performance Evaluations	Performance Plans	F	F				
2445	EMP_RELGN	History of all grievances, and disciplinary actions issued in the region	Employee Relations	General	F	F				
2446	EMP_RELGN	Region can designate terms defined on as members and not allow	Employee Relations	General	F	F				
2447	EMP_RELGN	PEPF as of scope (COS) as of 7/1 /15 so this requirement is new COS	Employee Relations	General	F	F				
2448	EMP_RELGN	PEPF as of scope (COS) as of 7/1 /15 so this requirement is new COS	Employee Relations	General	F	F				
2449	EMP_RELGN	System tracks a multi-step grievance tracking process	Employee Relations	Grievances	F	F				
2450	EMP_RELGN	System allows users to enter notes and track all grievances	Employee Relations	Grievances	F	F				
2451	EMP_RELGN	System allows users to track actions made related to the grievance	Employee Relations	Grievances	F	F				
2452	EMP_RELGN	Complaint	Employee Relations	Grievances	F	F				
2453	EMP_RELGN	Action/task completed (example: follow up research phone call etc)	Employee Relations	Grievances	F	F				
2454	EMP_RELGN	Employee	Employee Relations	Grievances	F	F				
2455	EMP_RELGN	Event, PNY that was visited	Employee Relations	Grievances	F	F				
2456	EMP_RELGN	Follow up status with next locations	Employee Relations	Grievances	F	F				
2457	EMP_RELGN	Appeals	Employee Relations	Grievances	F	F				
2458	EMP_RELGN	Resolution	Employee Relations	Grievances	F	F				
2459	EMP_RELGN	System allows users to attach documents to grievance	Employee Relations	Grievances	F	F				
2460	EMP_RELGN	System tracks time from initial grievance filing to resolution	Employee Relations	Grievances	F	F				
2461	EMP_RELGN	System allows workflow and process for disciplinary actions to be tracked	Employee Relations	Disciplinary Actions	F	F				
2462	EMP_RELDC	System allows users to track actions made related to disciplinary event	Employee Relations	Disciplinary Actions	F	F				
2463	EMP_RELDC	Employee	Employee Relations	Disciplinary Actions	F	F				
2464	EMP_RELDC	Event, PNY that was visited	Employee Relations	Disciplinary Actions	F	F				
2465	EMP_RELDC	Cause	Employee Relations	Disciplinary Actions	F	F				
2466	EMP_RELDC	Discipline	Employee Relations	Disciplinary Actions	F	F				
2467	EMP_RELDC	Multiple events in appeal process with outcome	Employee Relations	Disciplinary Actions	F	F				
2468	EMP_RELDC	Proposed discipline	Employee Relations	Disciplinary Actions	F	F				
2469	EMP_RELDC	Overall outcome	Employee Relations	Disciplinary Actions	F	F				
2470	EMP_RELDC	Follow up status with next locations	Employee Relations	Disciplinary Actions	F	F				
2471	EMP_RELDC	Date of event	Employee Relations	Disciplinary Actions	F	F				
2472	EMP_RELDC	System accommodates a multi-step disciplinary process	Employee Relations	Disciplinary Actions	F	F				
2473	EMP_RELDC	System tracks history of disciplinary actions on employee file	Employee Relations	Disciplinary Actions	F	F				
2474	EMP_RELDC	System removes disciplinary actions after pre-defined number of years	Employee Relations	Disciplinary Actions	F	F				
2475	EMP_RELDC	System allows removing disciplinary act on earlier with proper	Employee Relations	Disciplinary Actions	F	F				
2476	EMP_RELDC	System flags employees with written reprimand	Employee Relations	Disciplinary Actions	F	F				
2477	EMP_RELDC	System allows flagging an employee record as having prior or pending disciplinary act on specific circumstances	Employee Relations	Disciplinary Actions	F	F				
2478	EMP_RELDC	System tracks history of disciplinary actions on employee file	Employee Relations	Disciplinary Actions	F	F				
2479	EMP_RELDC	System tracks history of disciplinary actions on employee file	Employee Relations	Disciplinary Actions	F	F				
2480	EMP_RELDC	System provides reports of disciplinary act one	Employee Relations	Disciplinary Actions	F	F				
2481	EMP_RELDC	By category	Employee Relations	Disciplinary Actions	F	F				
2482	EMP_RELDC	By person	Employee Relations	Disciplinary Actions	F	F				
2483	EMP_RELDC	By user-defined criteria	Employee Relations	Disciplinary Actions	F	F				
2484	EMP_RELWP	System tracks work improvement plans for employees	Employee Relations	Work Improvement Plans	F	F				
2485	EMP_RELWP	System allows users to enter information on performance improvement plans including	Employee Relations	Work Improvement Plans	F	F				
2486	EMP_RELWP	Behavioral improvements	Employee Relations	Work Improvement Plans	F	F				
2487	EMP_RELWP	Goals to achieve	Employee Relations	Work Improvement Plans	F	F				
2488	EMP_RELWP	Skills to obtain	Employee Relations	Work Improvement Plans	F	F				
2489	EMP_RELWP	Milestone dates	Employee Relations	Work Improvement Plans	F	F				

Worksheet 05 - Reports

Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
1	1853	System tracks seniority time by month rounded to nearest full month. (If new hire date is in first half of month, get credit for full month)		96	24	Y	Y	S	Custom Report in HR Analytics Module
2	1854	Seniority months are adjusted by:							Header
3	1855	FTE		44	16	Y	Y	S	Custom Report in HR Analytics Module
4	1856	Leave without pay	Payroll Leave Accrual Balance Overview			Y		S	
5	2093	System produces reports of beneficiaries approaching ineligibility age (e.g., age 26)		72	20	Y	Y	S	A new custom OBI report need to be created including beneficiaries approaching ineligibility age in HR Analytics module.
6	2103	System will produce a total compensation package benefits statement. Department	Departmental Compensation and Performance Analysis			Y		S	
7	2399	System provides County Retirement System required reports (Salary by Position)	Salary by Department Hierarchy			Y		S	
8	2402	System provides required state reports for: Disability Insurance		44	16	Y	Y	S	A new custom OBI report need to be created to include Disability Insurance in HR Analytics
9	2433	System identifies employees up for annual salary increase without recent evaluation (evaluation in past 30 number of years)	Salary Percentile			Y		S	
10	2475	System removes disciplinary actions after pre-defined number of years						S	This requirement is related to data governance as it is related to the data maintained in OBI data warehouse and it requires discussion with the CCG technical team to decide if this data is "Soft Delete" or "Hard Delete". Based on the above, this will be a custom Oracle BI report to include claims and occurrence
11	2497	Claims can be linked together for an occurrence		44	16	Y	Y	S	A custom OBI HR Analytics report need to be created to compare the required training vs actual training
12	2553	System compares required training to actual training for defined time period and provides alert / notification for employees not meeting training requirements		96	24	Y	Y	S	
13	1565	Display available for PO placement: matrix of vendors, by item, approved as alternate suppliers	Order Fulfillment Summary			Y		S	
14	91	The system will provide the capability to generate standard reports based on user-specified selections, including the ability to summarize through calculations This will include user-defined criteria to access data for planning periods				Y		S	Standard Functionality of OBI - Users can summarize the pre-defined calculations
15	92	Import/Export capabilities to word, excel, pdf, etc.				Y		S	Standard Functionality of OBI
16	93	The system will provide the capability to generate standard reports based on sorting parameters, including the ability to summarize through calculations This will include user-defined criteria to access data for planning				Y		S	Standard Functionality of OBI - Users can summarize the pre-defined calculations

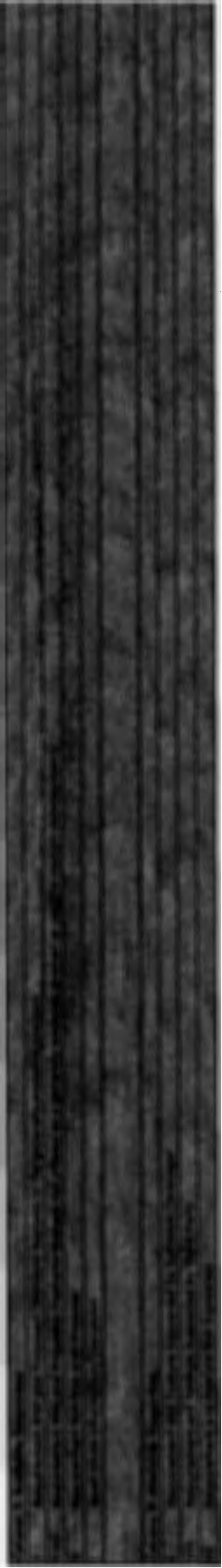
Worksheet 05 - Reports

Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
17	94	The system will provide the capability to generate ad hoc reports based on user-specified selections, including the ability to summarize through calculations. This will include user-defined criteria to access data for planning periods				Y		S	Standard Functionality of OBI - Super Users can summarize, modify the pre-defined calculations or create their own calculations. This requires an effort to identify the requirements for super users and configure the
18	95	The system will provide the capability to generate ad hoc reports based on sorting parameters, including the ability to summarize through calculations. This will include user-defined criteria to access data for planning periods				Y		S	Standard Functionality of OBI - Super Users can summarize, modify the pre-defined calculations or create their own calculations. This requires an effort to identify the requirements for super users and configure the
19	96	The system will provide the capability to perform queries based on user-specified selections, including the ability to summarize through calculations. This will include user-defined criteria to access data for planning periods				Y		S	Standard Functionality of OBI - Here queries means out-of-the-box reports. Dashboard users can browse the reports, analyze the reports based on the user selected selections. Super
20	97	The system will provide the capability to perform queries based on sorting parameters, including the ability to summarize through calculations. This will include user-defined criteria to access data for planning periods				Y		S	Standard Functionality of OBI - Here queries means out-of-the-box reports. Dashboard users can browse the reports, analyze the reports based on the user selected selections. Super Users can summarize, modify the pre-defined calculations or create their own calculations. This requires an effort to identify the requirements for super users and configure the OBI security
21	98	The system will allow for the reformatting of reports to present only specific information in the format selected		36	12	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-of-the-box reports is required
22	99	The system will allow for the reformatting of reports to present the summarization of data		44	16	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-of-the-box reports is required
23	100	The system will allow for the reformatting of reports to present the modification of data to allow tailoring the reports to the specific requirements of the user		44	16	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-of-the-box reports is required
24	101	The system will provide the capability to save report parameters (e.g., to re-create reports that were previously generated)		36	12	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-of-the-box reports is required

Worksheet 05 - Reports

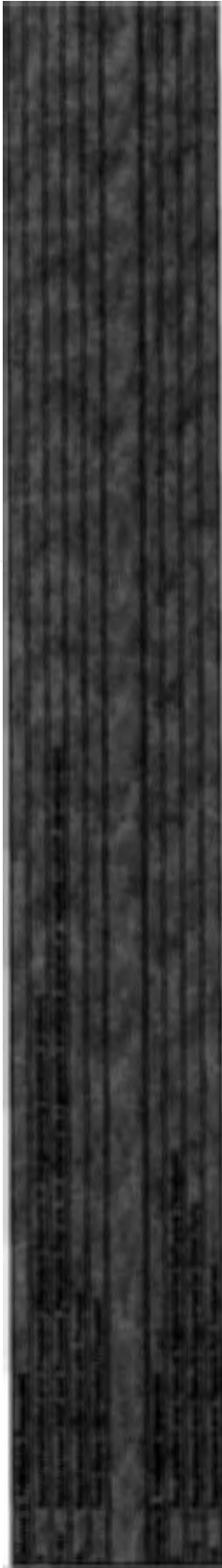
Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO.	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
25	102	The system will provide the capability to retrieve report parameters, (e.g., to re-create reports that were previously generated) based on user-defined criteria		36	12	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-of-the-box reports is required
26	103	The system will allow users to save query statements		44	16	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-
27	104	The system will provide the capability to allow reports to be run in the background while other system processing takes place				Y		S	Standard Functionality of OBI
28	105	The system will provide the capability for users to schedule reports to run in the future		72	20	Y	Y	S	It requires Scheduler configuration & creation of OBI Agents
29	107	The system will allow for online viewing of a partial report		44	16	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-
30	108	The system will allow for printing of an entire report to a user-specified printer				Y		S	Standard Functionality of OBI - Report will be printed to pdf or .mht and then user can print this report to any selected printer
31	109	The system will allow for printing of a partial report to a user-specified printer		36	12	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-
32	110	The system will allow users to print query statements		44	16	Y	Y	S	Enhancements to OBIEE security with additional configurations and extensions to out-
33	111	The system will allow for the capability to view reports via the standard web-browser				Y		S	Standard Functionality of OBI
34	112	The system will allow for the capability to view reports via standard text				Y		S	Standard Functionality of OBI
35	113	The system will allow for the capability to view reports via Portable Document Format (.pdf) format				Y		S	Standard Functionality of OBI
36	114	The system will allow for the capability to export reports to a Comma Separated Value (.csv) file				Y		S	Standard Functionality of OBI
37	115	The system will provide exception-reporting capability within the system (produces reports when data falls outside of user defined parameters)				Y		S	Standard Functionality of OBI
38	116	The system will have the ability to recreate reports using the system date				Y		S	Standard Functionality of OBI
39	117	The system will have the ability to allow authorized users to query via the intranet				Y		S	Standard Functionality of OBI
40	118	The system will have the ability to allow authorized users to run reports via the intranet				Y		S	Standard Functionality of OBI

Worksheet 05 - Reports



Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
41	119	The system will provide the capability to generate specific reports at a pre-determined time				Y		S	Standard Functionality of OBI
42	120	The system will have the capability to automatically distribute reports electronically to a pre-determined list of users		44	16	Y	Y	S	It is required to configure Oracle BI Scheduler and create / configure the Oracle BI Agents
43	121	The system will allow authorized users to maintain the pre-determined list of users for each report		44	16	Y	Y	S	It requires additional configuration. New version of OBIEE 11g doesn't maintain each of the users in the system, instead User groups
44	122	The system will allow authorized users to delete one or multiple users from the pre-determined list of users for notify users of report availability		44	16	Y	Y	S	It requires additional configuration. New version of OBIEE 11g doesn't maintain each of
45	123	The system will provide the ability to electronically notify users of report availability		44	16	Y	Y	S	It is required to configure Oracle BI Scheduler and create / customize the Oracle BI Agents
46	124	The system will allow authorized users to maintain a pre-determined list of users to receive notification that a report has been produced		44	16	Y	Y	S	It is required to configure Oracle BI Scheduler and create / customize the Oracle BI Agents
47	125	The system will allow authorized users to delete one or multiple users from the pre-determined list of users to receive notification that a report has been produced		44	16	Y	Y	S	It requires additional configuration. New version of OBIEE 11g doesn't maintain each of the users in the system, instead User groups are maintained within the OBIEE system and
48	126	The system will provide automated system assurance routines (e.g., data integrity verification reports) that are included as part of standard processing cycles		72	20	Y	Y	S	Additional configuration is required to the standard OBI functionality
49	127	The system will have the capability to interface with an external report viewing tool		44	16	Y	Y	S	Additional configuration is required to standard OBI functionality.
50	128	The system will have the capability to interface with online analytical processing				Y		S	Standard Functionality of OBI
51	332	System provides online inquiry into all transactions and reports including:							This is a header
52	333	Budget availability	Summary/Detail Budget Report			Y		S	
53	334	Journal entry status	Journal Details Report - Budgets			Y		S	
54	368	Daily cash balance reports	Cash Flow Summary Bank Statement Balances			Y		S	
55	1207	The system reports project status for the current month, YTD, and life-to-date and any other user-defined period	Funding Summary by Project			Y		S	

Worksheet 05 - Reports



Vendor Response Section										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
NO	Requirement ID	Requirement Description	Report Requirement	Name of Standard Report Resources (Customize to show all customers)	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
56	1208	The system can track and identify sources of revenue, expenses, and outstanding POs by specific project number	Y	Cumulative Cost Variance by Top Resources (Customize to show all customers)			Y		S	
57	1209	The system can report revenue, expenses, and statistical data (labor hours) on the same report by any financial / project / cost accounting data element for any user-defined time period	Y	TD Performance (Forecast, Budget and Actual) by Organization			Y		S	
58	1210	The system can identify direct, indirect and overhead costs for each project at summary and detail transaction levels	Y	Actual Total Cost, Equipment Cost and People Cost by Project			Y		S	
59	1470	Reporting capability for contracts with designation of key fields like vendor, contract number, target value, etc.	Y	Displays total funding, and customer and contract details			Y		S	
60	1474	The system must allow user to record and auto calculate retention amounts by: % Completion	Y	Displays total funding, and customer and contract details			Y		S	
61	1810	System allows ad-hoc query on any field in system	Y-ND		44	16	Y	Y	S	Additional configuration is required to standard OBI functionality.
62	1811	System allows web based report distribution (select user or group of users to make report available to - or send report to)	Y-ND		44	16	Y	Y	S	User subscribing to the reports and getting notification requires configuration of Oracle BI Delivers. Additional Oracle BI Agents need to be created to send message s/ notification to the users that a report has been updated.
63	1812	System allows users to subscribe to reports (user selects report and is notified when report is updated)	Y-ND		44	16	Y	Y	S	User subscribing to the reports and getting notification requires configuration of Oracle BI Delivers. Additional Oracle BI Agents need to be created to send message s/ notification to the users that a report has been updated.
64	1813	Queries can be saved	Y				Y		S	Standard BI functionality
65	1814	For individual user	Y-ND		44	16	Y	Y	S	Additional configuration is required to Oracle BI security to provide access to "Oracle Answers" for ad-hoc querying
66	1815	For group of users / roles	Y-ND		44	16	Y	Y	S	Additional configuration is required to Oracle BI security to provide access to "Oracle Answers" for ad-hoc querying
67	1816	For entire organization	Y-ND		44	16	Y	Y	S	Additional configuration is required to Oracle BI security to provide access to "Oracle Answers" for ad-hoc querying
68	1817	Information available on report is consistent with security profiles	Y-ND		44	16	Y	Y	S	Additional configuration is required to Oracle BI security
69	1824	Reports / queries can be exported to excel	Y-ND		44	16	Y	Y	S	Reports can be exported to excel. However, additional configuration to OBIEE Security is required
70	1825	System provides dashboard views to give all users easy view of key information	Y-ND		44	16	Y	Y	S	Additional configuration is required to OBI security to identify who (CCG users) should get what (Dashboard, report) access.

Worksheet 05 - Reports



Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
71	1826	Dashboard functions as entry point of the system				Y		S	Standard Functionality of OBI - OBI offers both EBS as well as OBI as an entry point to the system.
72	1827	Dashboard view can be configured to meet individual needs of each user (each user can have different dashboard)		72	20	Y	Y	S	Additional configuration is required to the OBI Security
73	1828	System allows user to configure own dashboard		44	16	Y	Y	S	Additional configuration is required to OBI security to identify who (CCG users) should get what (Dashboard, report) access.
74	1829	Dashboard views utilize graphs and charts of visual display of information		44	16	Y	Y	S	Requires custom development of individual reports to display specified graph
75	1830	Users can drill down from dashboard to view detail				Y		S	Standard Functionality of OBI
76	1831	Users can access information from other systems or web on dashboard				Y		S	Standard Functionality of OBI
77	1832	Users can access information from other systems or web on dashboard				Y		S	Standard Functionality of OBI
78	2399	System provides County Retirement System required reports (Salary by Position)	Average Base Salary by Pay Grade	72	20	Y	Y	S	This will be a custom report
79	372	Can view account history, in a single window, based upon a set period of time (e.g., 24 months)	GL Account Balance	36	8	Y	Y	S	Requires development of custom report to show history
80	438	Generates invoices for internal customers (Departments)	ALL INVOICES REPORT 2			Y		S	
81	439	Generate consolidated statements for customers with multiple accounts (option to or not to generate consolidated statements)	ADS Customer Listing - Detail	72	16	Y	Y	S	Requires development of custom report to provide an option to the users to generate or not generate consolidated report
82	480	System creates an ageing of outstanding accounts receivable in an ageing format prescribed by the user	Ageing - 4 Buckets Report (XML) Ageing - 7 Buckets - By Collector Report (XML) Ageing - 7 Buckets Report (XML)	27	8	Y	Y	S	Requires development of a custom BI Publisher report
83	483	Sorting and displaying accounts receivable				Y	Y	S	This is a standard functionality in BIP
84	484	Ability to generate a variance report showing revenue accruals vs. actual collection	Accrual Details Report for QP Periodic Accrual Reconciliation	36	12	Y	Y	S	Requires development of a custom BI Publisher report
85	485	Generates receivable report by customer	AR Customer Balance Statement			Y		S	
86	486	Generates payment report by payment type	TEX: Payment Collector Report			Y		S	
87	487	Generates receivables report by payment type	Customer: Open Balance Letter (XML)	27	8	Y	Y	S	Requires development of a custom BI Publisher

Worksheet 05 - Reports

Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
88	488	Generates aging report	Aging - 4 Buckets Report (XML)			Y		S	
89	489	Generates report when payment was received	Payables Posted Payment Register			Y		S	
90	687	System combines cumulative payments from system with payments made in other systems to create one On-demand 1099 form generation	1099 Payments Report	36	12	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting
91	688	On-demand 1099 form generation	1099 Payments Report	27	8	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting
92	689	Collects necessary information for generation of Federal 1099s at year-end (both manually and per IRS approved file)	1099 Payments Report	36	12	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting solution for global tax reporting. TRL represents a reporting framework for E-Business Tax Release 12 reports for Receivables, Payables, and General Ledger transactions
93	690	System to print collected 1099 payments into appropriate reporting boxes, i.e., rent, non-employee compensation, etc.	1099 Payments Report	36	12	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting solution for global tax reporting. TRL represents a reporting framework for E-Business Tax Release 12 reports for Receivables, Payables, and General Ledger transactions
94	691	System can produce electronic file to send 1099 related forms to IRS	1099 Payments Report	27	8	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting solution for global tax reporting. TRL represents a reporting framework for E-Business Tax Release 12 reports for Receivables, Payables, and General Ledger transactions
95	692	Can print 1099 and related forms	1099 Payments Report	27	8	Y	Y	S	This is a custom Tax Report. Tax Reporting Ledger (TRL) provides a single reporting solution for global tax reporting. TRL represents a reporting framework for E-Business Tax Release 12 reports for Receivables, Payables, and General Ledger transactions
96	1038	The system includes the following standard reports:				Y	Y	S	Header
97	1039	period reports		36	12	Y	Y	S	Requires development of a custom BI Publisher report
98	1040	depreciation expense reports	Adjusted Form 4562 - Depreciation and Amortization Report	36	12	Y	Y	S	Requires development of a custom BI Publisher report

Worksheet 05 - Reports

Vendor Response Section										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
NO	Requirement ID	Requirement Description	Report Requirement	Name of Standard Report	Consultant Work Effort (in hours)	Item Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
99	1041	activity reports	Y	Agreement Activity Report			Y		S	
100	1042	added assets reports	Y	Assets By Category Report			Y		S	
101	1043	adjusted assets reports	Y-ND	Adjusted Form 4626 - AMT Summary Report	48	16	Y	Y	S	Requires development of a custom BI Publisher report
102	1044	transferred assets reports	Y-ND	Transfer Journal Entries to GL - Assets	72	16	Y	Y	S	Requires development of a custom BI Publisher report
103	1045	retired assets reports	Y-ND	Retired Assets Without Property Classes Report	27	8	Y	Y	S	Requires development of a custom BI Publisher report
104	1046	management reports	Y	Create Accounting - Cost Management Margin Analysis Report with Order Management (XML)			Y		S	
105	1047	asset master data reports	Y-ND		36	12	Y	Y	S	Requires development of a custom BI Publisher report
106	1048	cost and reserve reports	Y	Fully Reserved Assets Report			Y		S	
107	1049	depreciation projection reports	Y	Depreciation Projection Report			Y		S	
108	1050	gains and losses reports	Y	Projected Gains and Losses Report			Y		S	
109	1051	property listing by location (tax and physical) reports	Y	Expensed Property Report Property Tax Statement			Y		S	
110	1052	investment tax credit reports	Y-ND	Investment by Remaining Life Customer Credit Snapshot	48	16	Y	Y	S	Requires development of a custom BI Publisher report
111	1053	Reconciliation report between General Ledger and fixed assets	Y	Generate Reconciliation Report			Y		S	
112	1162	Send reminders to the agencies when reports are due	Y-ND	Bills Receivable Reminder Letters	48	16	Y	Y	S	Requires development of a custom BI Publisher report
113	1163	Generates reports based upon grantor-defined categories or the site's chart of accounts.	Y-ND	Chart of Accounts Listing Report	48	16	Y	Y	S	Requires development of a custom BI Publisher report
114	1164	Open Check Report	Y-ND	AP Check Payments to Suppliers	48	16	Y	Y	S	This will be single custom BI Publisher report
115	1818	System report writer provides capabilities for:	Y				Y		S	Standard BI functionality
116	1819	Adding logo to report headers	Y				Y		S	Standard BI functionality
117	1820	Creating reports with multiple:	Y				Y		S	Standard BI Publisher functionality
118	1821	Color	Y				Y		S	Standard BI Publisher functionality
119	1822	Fonts	Y				Y		S	Standard BI Publisher functionality
120	1823	Performing calculations (Column A + Column B = Column C)	Y				Y		S	Standard BI Publisher functionality
121	1824	Grouping and Summarizing Data	Y				Y		S	Standard BI Publisher functionality
122	1825	Reports / queries can be exported to excel	Y				Y		S	Standard BI Publisher functionality
123	2137	System tracks amounts/percentages for the following independently	Y				Y		S	Standard OBI functionality
124	2138	Employee Rate	Y	Employee Rates Listing (XML)			Y		S	This is a header

Worksheet 05 - Reports

Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consistent Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
125	2139	Employer Rate		48	16	Y	Y	S	This report requires additional configurations and extensions to BI Publisher query
126	2315	System will print the following paychecks and advices on all leave categories				Y	Y	S	
127	2316	Accrual rate				Y		S	
128	2317	Accrual Balance	Accrual Details (XML)			Y		S	
129	2318	Leave taken in hours	Employee Accrual Balance and Accrual Balance			Y		S	
130	2319	Leave taken in days	Payroll Leave Accrual Balance Overview			Y		S	
131	2320	Employer paid amounts for benefits	Payroll Leave Accrual Balance Overview						
132	2321	Per pay period	Employee Payroll Cost Details	27	8	Y	Y	S	Requires development of a custom BI Publisher report
133	2322	YTD	Employee Payroll Cost Year Ago % Change Details	27	8	Y	Y	S	This is a custom OBIEE/BI Publisher report
134	2323	The system must create checks with the following items on blank check stock	Electronic Payments						
135	2367	Electronic signatures	Electronic Tax File	27	8	Y	Y	S	This report requires additional configurations and extensions to BI Publisher query
136	2368	System allows broadcast messages which appears on all check stubs		27	8	Y	Y	S	This is a custom BI Publisher report
137	2369	System allows broadcast messages which appears on check stubs for a defined group		27	8	Y	Y	S	This is a custom BI Publisher report
138	2393	System will produce W-3 report		27	8	Y	Y	S	This is a custom BI Publisher report
139	2394	System will produce quarterly Form 941 report		27	8	Y	Y	S	This is a custom BI Publisher report
140	2395	For State		27	8	Y	Y	S	This is a custom BI Publisher report
141	2400	System provider required state reports for:							This is a header
142	2401	Personal Income Tax		36	12	Y	Y	S	This report requires additional configurations and extensions to BI Publisher query
143	2402	Disability Insurance		27	8	Y	Y	S	This is a custom BI Publisher report
144	2403	Unemployment	Payroll Report (Check list for Unemployment Ins) (XML)			Y		S	
145	2404	System allows County to file each required report under different State ID number		36	12	Y	Y	S	This report requires additional configurations and extensions to BI Publisher query
146	335	System produces all relevant GASB statements and reports required to produce the County Comprehensive Annual Financial Report (CAFR).							Functionality of the report

Worksheet 05 - Reports

Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consistent Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
147	336	Produce the following financial reports on a consolidated or non-consolidated basis							Functionality of the report
148	337	Budget variance report	Budget Trial Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
149	338	Detail or summary level	Average Balance Trial Balance Report	36	12	Y	Y	S	This is a customization to Hyperion Report
150	339	Trial balance by:	Average Balance Trial Balance Report			Y		S	
151	340	Department	Expanded Trial Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
152	341	Fund	Expanded Trial Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
153	342	Project	Expanded Trial Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
154	343	Cash flow	Cash Flow Dashboard (OOTB)	36	12	Y	Y	S	This is a customization to Hyperion Report
155	344	Fund balance report	GL Account Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
156	345	Balance sheet	Monthly / Quarterly Balance Sheet	36	12	Y	Y	S	This is a customization to Hyperion Report
157	346	Statement of Revenues and Expenditures (i.e., Income Account balances)	Custom Report	40	20	Y	Y	S	This will be a new custom Hyperion report
158	347	Cash balances	General Ledger Account Balances Across Ledgers	36	12	Y	Y	S	This is a customization to Hyperion Report
159	348	System produces the following CAFR reports:	GL Account Balance	36	12	Y	Y	S	This is a customization to Hyperion Report
160	349	Government-Wide Statements:							Header
161	350	Statement of Net Position				Y	Y	S	Header
162	351	Statement of Activities				Y	Y	S	This is a custom Hyperion Report
163	352	CAF reports compare most recent and prior fiscal year activity with variance (comparative reports)				Y	Y	S	This is a custom Hyperion Report
164	353	Fund Financial Statements:				Y	Y	S	This is a custom Hyperion Report
165	354	Balance Sheet - Governmental Funds				Y	Y	S	Header
166	355	Reconciliation of Balance sheet - Governmental funds to Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds				Y	Y	S	This is a custom Hyperion Report
167	356	Reconciliation of the Statement of Revenue, Expenditures, and Changes in Fund Balances of Fund Balances - Budget to Actual - by Governmental Funds				Y	Y	S	This is a custom Hyperion Report
168	357	Statement of Revenues, Expenditures, and Changes in Fund Balances - Budget to Actual - by Governmental Funds				Y	Y	S	This is a custom Hyperion Report
169	358	Statement of Net Position - Proprietary Funds				Y	Y	S	This is a custom Hyperion Report
170	359	Statement of Revenues, Expenses, and changes in net assets - proprietary funds by fund				Y	Y	S	This is a custom Hyperion Report
171	360	Statement of Net Position - Proprietary Funds				Y	Y	S	This is a custom Hyperion Report
172	361	Statement of Revenues, Expenses, and changes in net assets - proprietary funds by fund				Y	Y	S	This is a custom Hyperion Report

Worksheet 05 - Reports

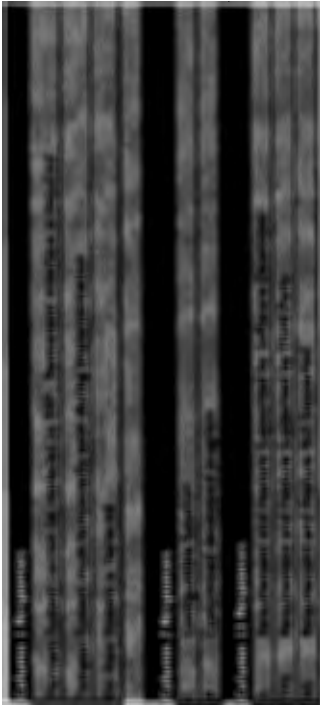
Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consultant Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
173	362	Statement of Revenues, Expenses, and changes in net assets - proprietary funds by function		36	12	Y	Y	S	This is a custom Hyperion Report
174	363	Statement of Cash Flows - Proprietary Funds	Cash Flow Statement Combination Program	80	40	Y	Y	S	This is a customization to Hyperion Report
175	364	Statement of Activities by function		40	20	Y	Y	S	This is a custom Hyperion Report
176	365	Statement of Net Position - Fiduciary Funds		40	20	Y	Y	S	This is a custom Hyperion Report
177	366	Statement of Changes in Fiduciary Net Position		40	20	Y	Y	S	This is a custom Hyperion Report
178	367	Combining and Individual Fund Financial Statements		40	20	Y	Y	S	This is a custom Hyperion Report
179	369	Produces a posted and unposted report for sub-ledger reconciliation		80	40	Y	Y	S	This is a custom Hyperion Report
180	370	System produces interim financial statements at month end for all types of funds (example: enterprise, general, or closed e.g. month, quarter, year)		40	20	Y	Y	S	This is a custom Hyperion Report
181	371	System will produce reports for any fiscal period, open or closed e.g. month, quarter, year		24	12	Y	Y	S	This is a custom Hyperion Report
182	890	Budget publishing tool uses real time data, point in time data, saved templates, and narrative information to		24	12	Y	Y	S	This is a custom Hyperion Report
183		System produces all detail, summary information, narrative, and supporting documentation (including page numbers) for:				Y		S	Standard functionality of Hyperion report
184	891	Recommended budget book		80	40	Y	Y	S	This is a custom Hyperion Report
185	892	Adopted budget book		40	20	Y	Y	S	This is a custom Hyperion Report
186	893	Produces the table of contents, index, glossary for the budget document		36	12	Y	Y	S	This is a custom Hyperion Report
187	894	Incorporates capital budget to annual document and also has the capability to produce a multi-year capital budgeting document.		80	40	Y	Y	S	This is a custom Hyperion Report
188	895	System exports information directly into Word, Excel and Publisher for budget document		80	40	Y	Y	S	This is a custom Hyperion Report
189	896	System allows user to create footnotes and comments with flexible formatting for budget publications		80	40	Y	Y	S	This is a custom Hyperion Report
190	897	Budget document publishes all or part of the following information as defined annually by the County:				Y	Y	S	Standard functionality of Hyperion report
191	898	Budget message		80	40	Y	Y	S	This is a custom Hyperion Report
192	899	Financial policies		80	40	Y	Y	S	This is a custom Hyperion Report
193	900	Goals and objectives		80	40	Y	Y	S	This is a custom Hyperion Report
194	901	Short term initiatives		80	40	Y	Y	S	This is a custom Hyperion Report
195	902	Describes all services, programs carried out by organization		80	40	Y	Y	S	This is a custom Hyperion Report

Worksheet 05 - Reports



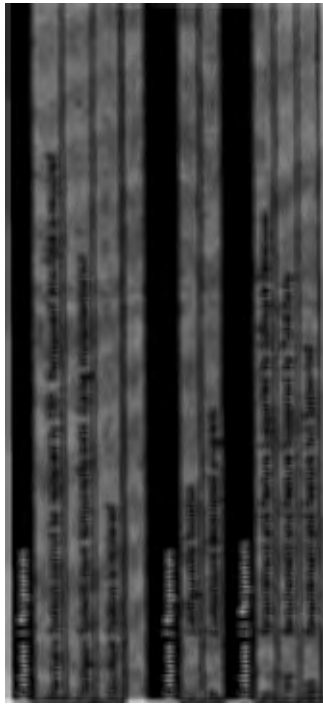
Vendor Response Section									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
NO	Requirement ID	Requirement Description	Name of Standard Report	Consistent Work Effort (in hours)	Client Work Effort (in hours)	In Scope? (Y/N)	Included in Price? (Y/N)	Type of Support	Comments
196	904	Performance data	Y-ND	80	40	Y	Y	S	This is a custom Hyperion Report
197	905	Listing and description of all appropriated funds	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
198	906	Summary of major revenues and listing by type	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
199	907	Summary of major expenses and listing by type	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
200	908	Expenses listed by function, organizational unit, or program	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
201	909	Prior year expenses compared to budgeted amounts	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
202	910	Financial information for previous years	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
203	911	Capital budget expenditures and plans	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
204	912	Financial data on current debt	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
205	913	Other debt information including debt limitations, millage rates	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
206	914	Key dates in budget process	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
207	915	Organization charts	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
208	916	Personnel counts	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
209	917	Department budget includes:	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
210	918	Financial information	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
211	919	Position information	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
212	920	Mission, goals, accomplishments, and other text stored in budget system	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
213	921	Performance measures	Y-ND	40	20	Y	Y	S	This is a custom Hyperion Report
214	922	System provides a spelling and grammar check for budget document	Y-ND	40	20	Y	Y	NS	This is a custom Hyperion Report
215	652	System allows users to view cancelled check images indexed to invoices paid.	Y-ND	84	32	Y	Y	S	
216	966	Identifying more than one grant associated with an asset	Y-ND	84	32	Y	Y	S	
217	967	Identifying the percentage split, or capitalization breakout (to each grant) for each asset	Y-ND	84	32	Y	Y	S	
218	986	Commodity codes	Y-ND	84	32	Y	Y	S	
219	1375	Ability to track historical changes on Req.	Y-ND	84	32	Y	Y	S	
220	1483	System tracks amount for contract renewals by total contract and/or by each renewal	Y-ND	120	54	Y	Y	S	
221	1560	Reports shortages and schedule information to suppliers in real time.	Y-ND	84	32	Y	Y	S	
222	1677	Reporting requirement for average monthly usage per material with an ability to apply factors.	Y-ND	120	54	Y	Y	S	

Worksheet 06 - Anticipated Interfaces



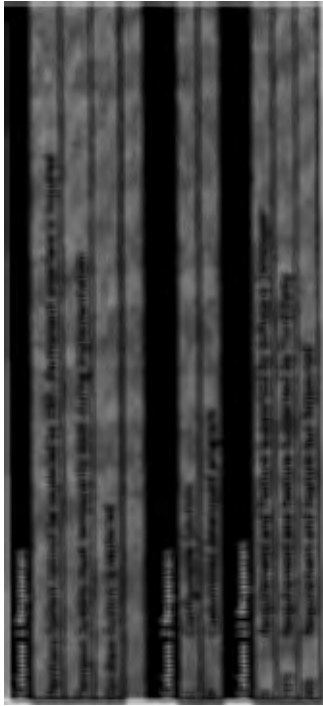
		Vendor Response (1)			
	BR-Budget Request System	BR is a department Budget Request System for Fiscal Budget Planning. The department is currently in the process of replacing it with a new system. The RFP for the new system has already been published.	Inbound	Temporary	Complex
1	eMARKETPLACE-MarketPlace	County users use MarketPlace for small routine purchases from approved catalogues. Purchase can be made by authorized users who have a valid JDE id. Market Place is hosted by EqualLevel. EqualLevel maintains a list of approved vendors and product catalogues. Market Place has a workflow for purchase approvals. Once a purchase is approved, Market Place sends order directly to the vendor and creates a purchase order file. This purchase order file is imported into JDE system on a daily basis.	Inbound	Permanent	Very Complex
2					

Worksheet 06 - Anticipated Interfaces



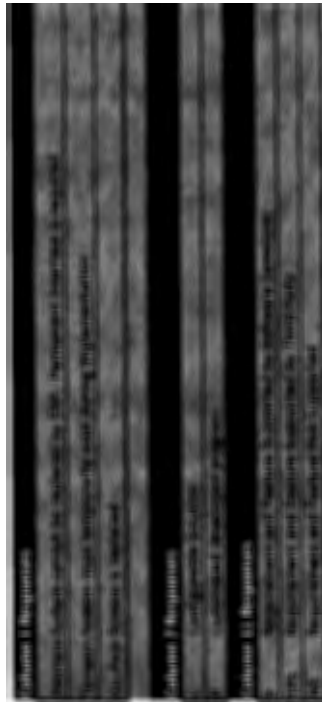
		Vendor Response		
		(1)		
	PRODIAGIO-Prodagio	Outbound	Permanent	Very Complex
3	<p>County's Procurement department users Prodagio's Contract Lifecycle Management software. It is a hosted solution maintained by Prodagio (SaaS Model).</p> <p>Primary use:</p> <ul style="list-style-type: none"> - View Contract information in entirety - Ability to add attachments - Populate additional attributes like Contract Category, Key Dates, and Descriptive Text. - Capture Contract Modifications (Revisions). - Capture Notes and Status-updates. This shows the progress/activity on any given contract by Date and User. - Ability to send Email Notifications/Reminders based on pre-configured events like Contracts expiring in next 6 weeks, Closed Contracts, New Contracts, etc. - Ability to generate nearly 15 custom template-driven reports per Cook County's procurement policies/procedures - some of the key documents include Contracts, Solicitations, Memos, Letters, Legal Ads, etc. <p>The initial contract is created in JDE, which is imported into Prodagio. The intent of using Prodagio is to manage contract workflow and make contract related data, processes and documents available to all the authorized users. Contract and Purchase Order related documents are scanned and kept in Prodagio in PDF format.</p>			
				1
				3

Worksheet 06 - Anticipated Interfaces



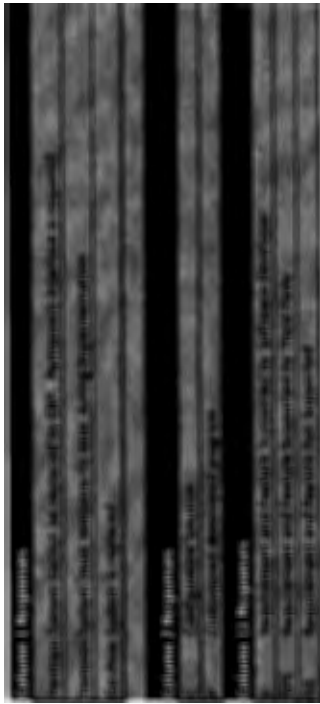
		Vendor Response		
		(1)	(1)	(1)
		Inbound	Temporary	Complex
4	JDE-E1-JD Edwards EnterpriseOne	<p>Department of Human Resources is in the process of upgrading its JD Edwards World HR and Payroll system (including Position Control and Benefits Administration) to JD Edwards EnterpriseOne. Effective July/August of 2014, County will be using JD Edwards EnterpriseOne system for all HR and Payroll related functions.</p> <p>Since the County is planning to do phased implementation; HR and Payroll related information from JD Edwards EnterpriseOne should be interfaced into the new County-wide ERP system until such time when the HR/Payroll functionality is built within the new ERP system. Likewise, information residing within the new ERP; if considered necessary, should be interfaced into JD Edwards EnterpriseOne system.</p> <p>Potential interfaces from EnterpriseOne to new ERP system include (but are not limited to) Applicant, Job Codes, Position, Employee, Staffing, Payroll Vouchers, Payroll Journals, etc. In similar lines JD Edwards EnterpriseOne system would need information like Lookup Types/Codes, Customer, Vendor, Accounts, Business Units, Company/Organization, etc. from the new ERP system.</p> <p>JD Edwards EnterpriseOne will eventually be retired when the new ERP system is fully functional with HR and Payroll functionalities. The new ERP System should account for all the interfaces that are currently handled by EnterpriseOne like ACH,</p>		

Worksheet 06 - Anticipated Interfaces



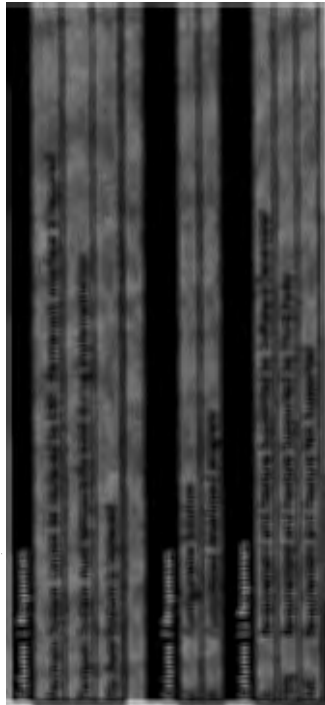
		Vendor Responses		
		(1)		
		Inbound	Permanent	Very Complex
5	<p>EMARKETPLACE- MarketPlace</p> <p>Facilities Management uses eMarketPlace for small routine purchases from approved catalogues. Purchase can be made by authorized users who have a valid JDE Id. Market Place is hosted by EqualLevel. EqualLevel maintains a list of approved vendors and product catalogues.</p> <p>Market Place has a workflow for purchase approvals. Once a purchase is approved, Market Place sends order directly to the vendor and creates a purchase order file. This purchase order file is imported into JDE system on a daily basis.</p>			
			1	1

Worksheet 06 - Anticipated Interfaces



		Vendor Response (1)			
		Outbound	Permanent	Very Complex	
6	<p>PRODAGIO-Prodagio</p> <p>Facilities Management uses Prodagio's Contract Lifecycle Management software. It is a hosted solution maintained by Prodagio (SaaS Model).</p> <p>Primary use:</p> <ul style="list-style-type: none"> - View Contract information in entirety - Ability to add attachments - Populate additional attributes like Contract Category, Key Dates, and Descriptive Text. - Capture Contract Modifications (Revisions). - Progress/Activity on any given contract by Date and User. - Ability to send Email Notifications/Reminders based on pre-configured events like Contracts expiring in next 6 weeks, Closed Contracts, New Contracts, etc. - Ability to generate nearly 15 custom template-driven reports per Cook County's procurement policies/procedures - some of the key documents include Contracts, Solicitations, Memos, Letters, Legal Ads, etc. <p>The initial contract is created in JDE, which is imported into Prodagio. The intent of using Prodagio is to manage contract workflow and make contract related data, processes and documents available to all the authorized users. Contract and Purchase Order related documents are scanned and kept in Prodagio in PDF format.</p>	Outbound	Permanent	Very Complex	3 1
7	LAWSON ERP-Lawson ERP	Outbound	Temporary	Complex	1 1
8	System that house 1099 data (not clear from the requirements)	Inbound	Permanent	Complex	1 1
9	Cashier System	Inbound	Permanent	Complex	1 12

Worksheet 06 - Anticipated Interfaces



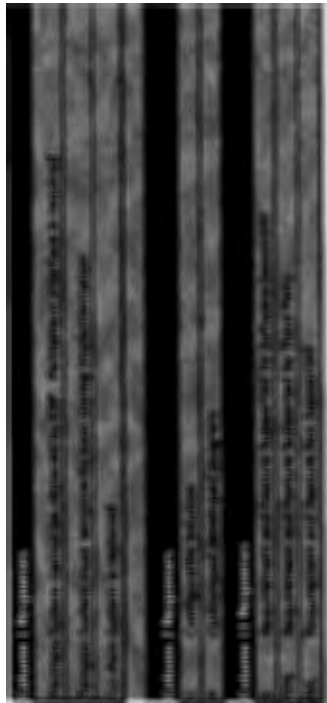
		Vendor Response		(1)	
10	Invoicing Credit Memo	System supports electronic invoicing System can convert credit memo to accounts receivable invoice	Inbound inbound	Permanent Permanent	1 1
11	Check Import	Can import check files from outside sources	Inbound	Permanent	1
12	Oracle Ebs	Oracle Ebs to Taleo Integration - Employee - CCG	Inbound	Permanent	1
13	Oracle Ebs	Oracle Ebs to Taleo Integration - Employee - FPD	Inbound	Permanent	3
14	Oracle Ebs	Oracle Ebs to Workforce EMPCenter Time Entry	Inbound	Permanent	3
15	Oracle Ebs	Interface of GL data from EBS to Hyperion Financial Management using FDMEE	Outbound	Permanent	1
16	EBS Financials	Interface of GL data from EBS to Hyperion Planning using FDMEE	Outbound	Permanent	2
17	EBS HR	Interface from EBS HR to Hyperion Planning	Outbound	Permanent	1
18	EBS Financials	Budget write back from Hyperion Planning to EBS Financials	Inbound	Permanent	1
19	EBS HR	HR Write back from Hyperion Planning	Inbound	Permanent	1
20	SharePoint Integration	Ability to interface with SharePoint platform created by department of budget for grants management.	Outbound	Permanent	4
21	EBS Financials	008 Risk Management - Risk Mgt payment - claims lifecycle for Workers' Compensation, Auto, General, Property, Professional Liability and many specialty lines from first notice of loss to final adjudication.	Inbound	Permanent	1
22	EBS Financials	Center interface to AR	Inbound	Permanent	1
23	EBS Financials	110 County Clerk - Electronic Warrant Books	Inbound	Permanent	1
24	EBS Financials	022 Contract Compliance - B2GNow	Inbound	Permanent	1
25	EBS Financials	060 County Treasurer - G Treasury - Property Tax Mgt	Inbound	Permanent	4
26	EBS Financials	McKesson collections systems	Inbound	Permanent	1
27	EBS Financials	New Case Management System	Bi-Direction	Permanent	4
28	EBS Financials	890 Health System Administration-LAWSONSCM-Lawson SCM system-Supply Chain	Inbound	Temporary	1
29	EBS HR	Employee Alpha List	Outbound	Permanent	3
30	EBS HR	Employee Counts	Outbound	Permanent	3
31	EBS HR	Leave of Absence	Outbound	Permanent	3
32	EBS HR	PPD Actual Balance Files	Outbound	Permanent	3
33	EBS HR				

Worksheet 06 - Anticipated Interfaces



		Vendor Response					
		(1)					
34	EBS HR	PPD Timecards	Outbound	Permanent	3	1	Medium
35	EBS HR	Wageworks Transit Order	Inbound	Permanent	3	1	Medium
36	EBS HR	Health Savings & Dependent Care (Open Enrollment)	Inbound	Permanent	3	1	Low
37	EBS HR	Employee E-mail Changes	Inbound	Permanent	3	1	Medium
38	EBS HR	Accrual Balances by Payroll Subgroup	Inbound	Permanent	3	1	Medium
39	EBS HR	Employee Life Insurance Enrollments	Inbound	Permanent	3	1	Complex
40	EBS HR	ACH	Outbound	Permanent	3	1	Complex
41	EBS HR	Positive Pay	Outbound	Permanent	3	1	Complex
42	EBS HR	Check Print FPD & COR	Outbound	Permanent	3	1	Complex
43	EBS HR	Child Support (SDU)	Outbound	Permanent	3	1	Low
44	EBS HR	Health	Outbound	Permanent	3	1	Low
45	EBS HR	Dental	Outbound	Permanent	3	1	Low
46	EBS HR	Cremark Employees/Dependents	Outbound	Permanent	3	1	Low
47	EBS HR	Vision	Outbound	Permanent	3	1	Low
48	EBS HR	Eligibility File	Outbound	Permanent	3	1	Medium
49	EBS HR	Transit Order	Outbound	Permanent	3	1	Medium
50	EBS HR	Payment File	Outbound	Permanent	3	1	Medium
51	EBS HR	Health Savings & Dependent Care	Outbound	Permanent	3	1	Medium
52	EBS HR	Monthly extract of Gross Wages County wide including Forest Preserve	Outbound	Permanent	3	1	Medium
53	EBS HR	Quarterly extract of Gross Wages County wide including Forest Preserve	Outbound	Permanent	3	1	Medium
54	EBS HR	Bi-Weekly Pension Deductions file	Outbound	Permanent	3	1	Medium
55	EBS HR	Judges' Quarterly Pension file	Outbound	Permanent	3	1	Medium
56	EBS HR	Legal Shield Participation File	Outbound	Permanent	3	1	Medium
57	EBS HR	Parking Deductions File	Outbound	Permanent	3	1	Medium
58	EBS HR	United Way Contributions File	Outbound	Permanent	3	1	Low
59	EBS HR	United Way Eligibility File	Outbound	Permanent	3	1	Complex
60	EBS HR	AIG Whole Life Insurance	Outbound	Permanent	3	1	Low
61	EBS HR	Supplemental Term Life Billing	Outbound	Permanent	3	1	Low
62	EBS HR	Basic Life Insurance	Outbound	Permanent	3	1	Low
63	EBS HR	Supplemental Term Life Data Exchange	Outbound	Permanent	3	1	Low
64	EBS HR	Supplemental Term Life Data Exchange	Outbound	Permanent	3	1	Low

Worksheet 06 - Anticipated Interfaces



		Vendor Responses					
		(1)					
65	EBS HR	Pension Flat File & Summary	Outbound	Permanent	Low	3	1
66	EBS HR	Deferred Compensation	Outbound	Permanent	Medium	3	1
67	EBS HR	Union dues payments	Outbound	Permanent	Medium	3	1
68	EBS HR	People's committee contributions	Outbound	Permanent	Medium	3	1
69	EBS HR	SEIU-73 union dues payments & COPE (PAC) contributions	Outbound	Permanent	Medium	3	1
70	EBS HR	Union dues payments	Outbound	Permanent	Medium	3	1
71	EBS HR	Local 743 union dues payments	Outbound	Permanent	Medium	3	1
72	EBS HR	Union dues	Outbound	Permanent	Medium	3	1
73	EBS HR	Union dues payments	Outbound	Permanent	Medium	3	1
74	EBS HR	New Employees and employees with updates	Outbound	Permanent	Low	3	1
75	EBS HR	Eligible Employees	Outbound	Permanent	Complex	3	1
76	EBS HR	Payroll Deductions	Outbound	Permanent	Medium	3	1
77	EBS HR	Active Employees	Outbound	Permanent	Medium	3	1
78	EBS HR	Sheriff Check Route Code	Outbound	Permanent	Medium	3	1
79	EBS HR	Active Health Employees	Outbound	Permanent	Complex	3	1
80	EBS HR	Employee Changes	Outbound	Permanent	Complex	3	1

Worksheet 07 - Conversions

Item #	Account Name	Open terms	Conversion Program	Complexity	Priority	Notes
1	General Ledger	Open terms	1 Conversion Program	Medium	1	Should be all Accounts (vs Open)
2	Budget	Open terms	1 Conversion Program	Complex	1	Prior Year Budgets and Actuals should also be included
3	Accounts Payable	Active	1 Conversion Program	Complex	1	All Vendors (Active and Inactive) since historical transactions could be referencing inactive Vendors
4	Accounts Receivable	Active	1 Conversion Program	Complex	1	All Customers (Active and Inactive) since historical transactions could be referencing inactive Customers
5	Project Accounting	Active	1 Conversion Program	Complex	1	
6	Grants Accounting	Active	1 Conversion Program	Medium	4	Capital Tracker 013 Planning and Development 214 Sheriff's Administration and Human Resources 500 Department of Transportation and Highways 890 Health System Administration
7	Purchasing	Open terms	1 Conversion Program	Medium	1	
8	Purchasing	Current and 7 years History	1 Conversion Program	Complex	1	
9	Purchasing	Active	1 Conversion Program	Complex	1	Should include all Open and Closed Purchase Orders for the last 7 years (or CCG's electronic data retention rules)
10	Fixed Assets	Active	1 Conversion Program	Complex	3	Should include all Open and Closed Contracts for the last 7 years (or CCG's electronic data retention rules)
11	HR - Employees	Active	1 Conversion Program	Complex	1	214 Sheriff's Admin and HR 860 Health Systems Admin 265 Homeland Security & Emergency Mgmt- General Fund
12	Payroll	Active	1 Conversion Program	Medium	1	
13	Payroll	Active	1 Conversion Program	Complex	1	
14	Beneficiary Records	Active	1 Conversion Program	Low	1	
15	Accounts Payable	Active	1 Conversion Program	Complex	1	
16	Purchasing	Active	1 Conversion Program	Medium	1	
17	Account Payables	Active	1 Conversion Program	Medium	1	Should be all Accounts (vs Open)
18	Accounts Payables	Active	1 Conversion Program	Medium	1	
19	General Ledger	Current and 7 years History	1 Conversion Program	Complex	1	
20	HR - Employees	Active	1 Conversion Program	Medium	1	
21	HR - Employees	Active	1 Conversion Program	Low	1	
22	HR - Employees	Active	1 Conversion Program	Complex	1	
23	HR - Employees	Current and 5 years History	1 Conversion Program	Complex	1	
24	HR - Employees	Current and 5 years History	1 Conversion Program	Medium	1	
25	HR - Employees	Active	1 Conversion Program	Medium	1	
26	HR - Employees	Active	1 Conversion Program	Low	1	
27	HR - Employees	Active	1 Conversion Program	Low	1	
28	HR - Employees	Active	1 Conversion Program	Medium	1	
29	HR - Employees	Active	1 Conversion Program	Medium	1	
30	HR - Employees	Active	1 Conversion Program	Medium	1	
31	HR - Employees	Active	1 Conversion Program	Medium	1	
32	HR - Employees	Active	1 Conversion Program	Complex	1	
33	HR - Employees	Active	1 Conversion Program	Low	1	
34	HR - Employees	Active	1 Conversion Program	Low	1	
35	HR - Employees	Active	1 Conversion Program	Low	1	
36	HR - Work Structures	Active	1 Conversion Program	Medium	1	
37	HR - Work Structures	Current and 5 years History	1 Conversion Program	Medium	1	
38	HR - Work Structures	Active	1 Conversion Program	Low	1	
39	HR - Work Structures	Active	1 Conversion Program	Low	1	
40	HR - Total Comp	Active	1 Conversion Program	Medium	1	
41	HR - Total Comp	Active	1 Conversion Program	Medium	1	

Worksheet 07 - Conversions

	Procurement	Inventory	Active	1 Conversion Program	1	Complex	6	
42			Active	1 Conversion Program		Complex		110 County Clerk 214 Sheriff's Administration and Human Resources 250 State's Attorney 259 Medical Examiner 265 Homeland Security & Emergency Mgmt- General Fund 500 Department of Transportation and Highways
43	HR	COBRA	Active	1 Conversion Program	3	Medium	1	COBRA Employer Administration Suite
44	HR	Activity Record such as Promotions, Step Increases, Job Changes and Transfers	Current and 5 years History	1 Conversion Program	3	Medium	1	
45	Payroll	Employee Pay History	Current and 5 years History	1 Conversion Program	3	Highly Complex	1	

Worksheet 08 - Enhancements/Customizations

		Vendor Response				
ID	REQID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
1	147	Custom Form and custom reports	System supports reorganizations: Maintains history of changes to accounts to enable as-of-date reporting	Y	154	31
2	215	Custom program with processing logic	System allows budget to be allocated out to defined periods within the year: Based on seasonal trends	Y	154	31
3	315	Custom program with processing logic	System closes at end of period by: Fund	Y	154	31
4	316	Need to determine whether FSG reports or custom program	System closes at end of period by: Department	Y	154	31
5	317	Need to determine whether FSG reports or custom program	System closes at end of period by: Cost Center	Y	100	15
6	318	Need to determine whether FSG reports or custom program	System closes at end of period by: Account	Y	100	15
7	320	Need to determine whether FSG reports or custom program	System closes at end of period by: Grant	Y	154	31
8	376	Custom self portal if I receivables is not used	Creation of customer record with self-registration	Y	154	31
9	381	Form personalization with package	Generates tickler messages for automatic display on specific dates for user defined fields.	Y	154	31
10	443	Custom program with processing logic	Interest is calculated and applied: Quarterly	Y	154	31
11	444	Custom program with processing logic	Interest is calculated and applied: Annually	Y	154	31
12	516	Trigger/Form Personalization	System generates alerts when the following is entered (records checked in real-time): Duplicate addresses	Y		
13	614	Form/logic enhancement	The system creates checks based upon: Chart of Account information	Y	100	15

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	REOID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
14	648	Custom program with processing logic	Provides controls to prevent a check (accounts payable, payroll or wire transfers) from being issued if cash is not available in an accounting fund.	Y	340	65
15	661	Custom program with processing logic	System automatically applies Retainage amounts to invoice payments from: Vendor file	Y	240	48
16	710	Custom upload with processing and calculation logic	System allows budget to be allocated out to defined periods within the year: Based on seasonal trends	Y	154	31
17	962	Custom program with processing logic	Ability to barcode and identify barcode numbers	Y	154	31
18	964	Form personalization	Identifies assets with acquisition and disposal restrictions	Y	154	31
19	968	Form personalization	Acquisition and Disposal restrictions	Y	154	31
20	987	Custom program with processing logic	System is able to copy an asset record to create a similar asset record	Y	154	31
21	1004	Form personalization	System flags donated items during disposal (Donated items may need to go back to grantor)	Y	154	31
22	1064	Integration	Information from grant application transferred to grant award set up	Y	100	15
23	1066	Custom program with processing logic	System allows for parent/child relationships on grants	Y	154	31
24	1096	Custom program with processing logic	Interest earnings are calculated and allocated to the grant as required	Y	100	15
25	1097	Custom program with processing logic	Identifies whether interest can be spent or must be remitted	Y	100	15

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	RECID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
26	1098	Custom program or report	System will track multiple types of program revenue per grant (example: principal and interest and program income)	Y	154	31
27	1106	Custom program or report	Document and track activity of sub-recipients and vendors	Y	100	15
28	1133	Custom Workflow	Notice sent to departments and sub-recipients when grant dates are extended	Y	100	15
29	1141	Custom Alert	Ability to alert agency of any deletions during invoice processing	Y	100	15
30	1143	Custom program with processing logic	Automatically hold off money/invoice payment to sub-recipient until all insurance requirements are met by the sub-recipient	Y	100	15
31	1148	Custom program with processing logic	Ability to have some pre-approved agencies for grants based on agency contracts	Y	100	15
32	1149	Custom program with processing logic	Ability for departments to sub-monitor the sub-recipients (E.g. Department of Homeland Security does this)	Y	100	15
33	1152	Custom program with processing logic	Ability for potential vendors and sub-recipients to submit applications online through the system	Y	154	31
34	1153	Custom program with processing logic	Ability for system to automatically send a notice to the agency/department when the comptroller's office reads the message of a request for grants funds for expenses.	Y	100	15

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	REQID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
35	1156	Custom program with processing logic	Automatic transaction analysis is done daily during invoicing to ensure that payments processes are accurately reflected in correct account.	Y	100	15
36	1315	Custom program with processing logic	System allows negative value items on line item detail (discounts, returns) of requisitions, POs, contracts	Y	100	15
37	1316	Custom program with processing logic	Ability to handle Reverse Logistics	Y	154	31
38	1330	Interface/Concurrent program	Allow purchase requisition templates to be created from purchase orders	Y	154	31
39	1362	Modify payment engine	Discounts applied both at total and line item levels	Y	240	48
40	1370	Custom program with processing logic	Ability to re-call a purged procurement document.	Y	154	31
41	1371	Custom program with processing logic	Ability to handle Reverse Logistics, moving goods from their typical final destination for the purpose of capturing value, or proper disposal, automatically.	Y	154	31
42	1374	New Concurrent Program/New Form Combination	Automatically create material / service masters based on user entered procurement requests and separately as standalone material / service masters. Each material/service should have parameters like Commodity Code, Buyer Code, Procurement Liaison, Preferred List designation, flag for compliance review, flag for risk mgmt. review, etc.	Y	240	48
43	1378	Custom program with processing logic	Prioritize Reqs within a Business Unit, Dept., etc.	Y	154	31

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	REQID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
44	1380	Custom program with processing logic	Forecasts the product reorder date (determined by stock estimates) for Req creation.	Y	255	46
45	1399	Custom program or report	System allows for creation of distribution lists by Location of vendor (city/state)	Y	100	15
46	1421	Custom program with processing logic	System allows vendors to submit alternate bids	Y	154	31
47	1435	Custom Alert	Create an alert/prompt for a vendor background check once a bidder has been selected	Y	100	15
48	1450	Custom Alert	Create an alert/prompt for a vendor background check once a bidder has been selected	Y	100	15
49	1460	Form/logic enhancement	Supports multi-vendor contracts	Y	154	31
50	1589	Form/logic enhancement	Vendors can be modified on existing purchase order	Y	100	15
51	1596	Form/logic enhancement	Request to change purchase order pre-encumbers funds	Y	100	15
52	1604	Form/logic enhancement	Ability to modify vendor on an existing PO and track historical changes.	Y	200	30
53	1611	Form/logic enhancement	Ability to either disallow or warn a buyer when they try to place a Req with past due delivery.	Y	154	31
54	1660	Form/logic enhancement	System requires restricted use items to have user specified approvals before inventory can be released (i.e. controlled drugs used by Health Department)	Y	100	15

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	REQID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
55	1666	Form/logic enhancement	System can bundle items into "carts" or "kits" (A cart or kit consists of items which are always ordered together - For example: all supplies needed for an oil change)	Y	154	31
56	1672	Form/logic enhancement	System accommodates blocking inventory requisitions based on user-defined characteristics (e.g., location does not have title so cannot request wax)	Y	100	15
57	1676	Form/logic enhancement	Ability to explode requirements into sub-components.	Y	100	15
58	1678	Form/logic enhancement	Ability to maintain records on user authorizations to location characteristics	Y	100	15
59	1699	Form/logic enhancement	The system will have the ability to convert the unit of measure from a higher uom to the low uom during the counting process	Y	100	15
60	1716	Form/logic enhancement	Accommodates business rules for overstock and under stock exceptions	Y	100	15
61	1717	Form/logic enhancement	Upon receipt of fixed assets, certain fields like commodity code, dollar amount, etc. are required.	Y	100	15
62	1720	Form/logic enhancement	Capability to perform on-line auctions	Y	154	31
63	1876	Form/logic enhancement	Employee can elect phone number to be included in phone book (not direct line)	Y	154	31
64	1892	Form/logic enhancement	System allows multiple changes to salary in one day that are cumulative (example: (Base + \$5) + 10%)	Y	154	31

Exhibit 2A-7 Enhancements in Scope

Vendor Response						
ID	REQID	Enhancement/Customization	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
65	1895	Form/logic enhancement	For personnel actions that require notification to be sent to third party (benefit changes, name change, etc.), system provides notification.	Y	100	15
66	2255	Form/logic enhancement	System will provide invoice to employees with deductions and garnishments greater than compensation (could bill if amount is never made up)	Y	154	31
67	2353	Form/logic enhancement	System accommodates multiple compound retro pay adjustments	Y	154	31
68	2356	Form/logic enhancement	System supports positive pay for vendor checks	Y	154	31
69	2390	Form with access to W-2 History	System will store W-2s (including history for at least 7 years)	Y	154	31
70	2431	Custom program with processing logic	System reviews text on performance evaluation for numeric scale	Y	154	31
71	2432	Custom program with processing logic	System reviews text on performance evaluation for Numeric scale	Y	154	31
72	1390, 1391	Supplier Registration Forms Modification	Vendors can register by the following to receive bids/solicitations for Department issuing bid / solicitation and Other user defined values	Y	240	48

Worksheet 09 - Workflows

Vendor Response					
ID	Name	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
1	Modify Requisition Approval Workflow	Ability to set workflow targets (e.g. if we receive a requisition for a small order bid, ideally we would know the various steps in the workflow and have the target dates for each step).	Y	154	31
2	Requisition Approval workflow	Modify Requisition Approval workflow for escalations, alternate approver and alerts	Y	154	31
3	Unposted journal entries Deletion Approval	Unposted journal entries can be deleted by reviewer or approver with notification back to initiator	Y	154	31
4	Interfund transfers Approval	Interfund transfers are approved through workflow (i.e., fund or department cannot be charged without proper approval)	Y	154	31
5	Ability to control which Auto Pos will go through on line approvals process and which ones will be automatically approved	Ability to control which Auto Pos will go through on line approvals process and which ones will be automatically approved	Y	101	15
6	PO Created or Rejected Notification	System provides notification to requester when purchase order is created or rejected	Y	101	15
7	AME Approval Hierarchy	AME Approval Hierarchy	Y	154	31
8	Employee Self Service	Employee Self Service Workflow Update Approval	Y	101	15
9	Separation Workflow	Upon separation, workflow notifies all appropriate departments (example: HR, Payroll, Budget, IT, Benefits, etc.) of employee separation	Y	101	15
10	Approval Notification for update to 3 forms	The system supports flags that can be set with each "Approved" field to identify who is authorized to approve change in field	Y	101	15
11	Accounting Code Correction Notification	Account coding errors in journal entry can be corrected by reviewer and approver with notification back to initiator.	Y	101	15
12	AP Invoice attachment for approval	System stores scanned image of invoice that is used for approval	Y	154	31
13	Purchase Order Accounting Change Approval	Different changes require different workflow (chart of account uses different path than change in value)	Y	154	31
14	Purchase Order Amount Change Approval	Changes to existing purchase orders for decrease in quantity or amount could follow separate approval process	Y	101	15
15	Child Record Plan On Hold	Child records are also placed on hold when parent records are placed on hold	Y	101	15
16	Employee Master File Deletion	The system will identify when an employee security profile is no longer in the employee master file	Y	101	15
17	HR Separation Notification	The system will notify the user's supervisor when an employee security profile is no longer in the employee master file	Y	101	15
18	Internal Material Request Approval		Y	154	31
19	PO Approval/Cancellation (in the event of direct Purchase Orders without a Requisition)		Y	101	15

Worksheet 09 - Workflows

		Vendor Response			
ID	Name	Purpose	Included in Price? (Y/N)	Estimated Number of Consulting Hours	Estimated Number of Client Hours
20	Contract Approval/Cancellation	Standard Oracle EBS Workflow			
21	Invoice Approval/Cancellation	Standard Oracle EBS Workflow			
22	Payment Approval/Cancellation	Standard Oracle EBS Workflow			
23	Project Approval/Close	Standard Oracle EBS Workflow			
24	Project Budget Approval	Standard Oracle EBS Workflow			
25	Award Budget Approval	Standard Oracle EBS Workflow			
26	Journals/Journal Batches Approval	Standard Oracle EBS Workflow			
27	Vendor Creation/Update approval		Y	101	15
28	Customer Creation/Update approval		Y	101	15
29	Work Request Approval	Standard Oracle EBS Workflow			
30	Work Order Approval	Standard Oracle EBS Workflow			
31	Material/Receiving	Standard Oracle EBS Workflow			
32	Material/Issuing	Standard Oracle EBS Workflow			

Exhibit 2A-9
Deliverable Expectation Document (DED)

Exhibit 2A-9

Deliverable Expectation Document (DED)

Exhibit 2A-9

Deliverable Expectation Document (DED)

Form 11 - Deliverable Expectation Document (DED)

Initiation Phase

DED Number:	Deliverable Name:	Phase:
01	Project Charter	Start Up
Description/Objective:		
<p>The objective of the Project Charter is to cover project scope, objectives, approach, organization and staff management, scope and requirements management, financial management, work management, issue management, risk management, key decision management, communication management, quality management, configuration management, infrastructure management, procurement management, and organization change management.</p>		
Scope:		
<p>The charter must address four primary areas: (1) Introduction to project: project goals and objectives; project scope; proposed solution and implementation sequence; description of implementation methodology, input and output activities, and deliverables; project organization and governance structure; staffing commitments and roles and responsibilities; (2) Project management procedures and related templates to enforce the procedures: scope/change management, schedule tracking and update process; weekly project reporting process and templates; issues/risk management process and templates; document filing and control standards/templates; deliverable submission and invoice approval process; communications development, review/approval and release process/templates; customization review and approval process, etc.; general resource information and management guidelines (team directory, building access/security guidelines, project and resource calendars, working hours and guidelines, etc.); (3) Quality control: must clearly define how the quality of the project will be measured and what the quality gates will be, how they will be tracked and reported, etc.; (4) Knowledge transfer: other than formal training, the proposer must document and ways and means on how day-to-day knowledge transfer will be facilitated to County/FPD staff on all implementation tasks and work products.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.1 Change Record1.2 Reviewers2. Introduction<ul style="list-style-type: none">2.1 Program Purpose2.2 Program Charter2.3 Application2.4 Related Documents		

Exhibit 2A-9
Deliverable Expectation Document (DED)

3. Scope
 - 3.1 Scope of Program
 - 3.2 Constraints and Assumptions
 - 3.3 Risks
 - 3.4 Relationship to Other Systems/Projects
4. Objectives
 - 4.1 Mission Statement and Guiding Principles
 - 4.2 Current Challenges
 - 4.3 High Level Goals
 - 4.4 Business Process and Organizational Goals
 - 4.5 Technology Goals
5. Approach
 - 5.1 Program Timeline
 - 5.2 Program Management Approach
 - 5.3 Deliverables
 - 5.4 IBM Contract Milestones
6. Organization and Staff Management
 - 6.1 Purpose
 - 6.2 Strategy
 - 6.3 The Program Team
 - 6.4 Program Procedures
 - 6.5 Key Program Roles and Responsibilities
 - 6.6 Education and Training
7. Scope and Requirements Management (Change Control)
 - 7.1 Scope Initiation
 - 7.2 Process for tracking changes
8. Financial Management
 - 8.1 Purpose
 - 8.2 Scope
 - 8.3 Key Process Requirements
 - 8.4 Time and Expense Reporting
9. Work Management
 - 9.1 Purpose
 - 9.2 Strategy
 - 9.3 Workplan Control
10. Issue Management
 - 10.1 Definitions
 - 10.2 Strategy
 - 10.3 Procedure
11. Risk Management
 - 11.1 Purpose
 - 11.2 Procedure
12. Key Decision Management

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 12.1 Definitions**
- 12.2 Purpose**
- 12.3 Strategy**
- 12.4 Procedure**
- 13. Communications Management**
 - 13.1 Purpose**
 - 13.2 Communication Management/Meeting Governance Structure**
 - 13.3 Status Monitoring and Reporting Tracking Information**
- 14. Quality Management**
 - 14.1 Purpose**
 - 14.2 Strategy**
 - 14.3 Procedure**
- 15. Configuration Management**
 - 15.1 Purpose**
 - 15.2 Configuration Definition**
 - 15.3 Document Control**
 - 15.4 Configuration Roles and Responsibilities**
- 16. Infrastructure Management**
 - 16.1 Purpose**
 - 16.2 Program Software/Tools**
 - 16.3 Program Environments**
 - 16.4 Software Backup Procedures and System Administration**
- 17. Procurement Management**
 - 17.1 Purpose**
 - 17.2 Process**
- 18. Organizational Change Management**
 - 18.1 Purpose**
 - 18.2 Strategy**

Assumptions:

- 1. All of the business needs defined for this project should be addressed.**
- 2. All of the project objectives defined will address the business needs.**
- 3. Staffing and skill sets will be sufficient to finish the project on time and on budget.**

Other Comments:

ENG 341 – Project Charter PeopleSoft9.2 FSCM HCM.docx

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
04	Baseline Resource Loaded Project Schedule	Start Up
Description/Objective:		
<p>The objective of the Baseline Resource Loaded Project Schedule is to provide a Microsoft Project Plan file defining the work breakdown structure (WBS) for E-Business Suite FSCM, SCM, HCM, OBIEE, Hyperion implementation project with Cloud Hosting and AMS support. It includes project activities, milestones, and deliverables. This document will be tracked and updated by the IBM Team on a weekly basis.</p>		
Scope:		
<p>The Project Plan covers all phases of the implementation and is consistently updated. The PM/PMO (for both the IBM Team and the County/FPD) will use this document to monitor and track progress in regards to project milestones and budget.</p>		
Format:		
Microsoft Project		
Outline:		
<p>IBM Oracle - Implementation</p> <ol style="list-style-type: none"> 1. Project Start Up <ol style="list-style-type: none"> 1.1 Defining <ol style="list-style-type: none"> 1.1.1 Understand objectives and build project definition 1.2 Planning <ol style="list-style-type: none"> 1.2.1 Outline Configuration Management Approach 1.2.2 Build project organizational unit work plans 1.2.3 Build agreement with supplier 1.2.4 Integrate project organizational unit work plans 1.2.5 Prepare risk management plan 1.2.6 Consolidate costs; create or update plans 1.2.7 Identify policy exceptions; conduct internal reviews 1.2.8 Finalize Sponsor Agreement and Prepare for Delivery Team Transition 1.2.9 Conduct Method Adoption Workshop (Proposal) 1.3 Starting <ol style="list-style-type: none"> 1.3.1 Establish Initial Technical Environment 1.3.2 Initiate Project Delivery Phase 1.3.3 Implement project management system 1.3.4 Obtain staff 1.3.5 Review and revise conditions of satisfaction 1.3.6 Establish or expand work plans 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 1.3.7 Integrate plans and review project
- 1.3.8 Start staff, establish people objectives, engagement rules
- 1.3.9 Start supplier
- 1.3.10 Conduct Method Adoption Workshop (Delivery)
- 1.4 Monitoring
 - 1.4.1 Track and control progress
 - 1.4.2 Assess estimating basis
 - 1.4.3 Hold internal communication meeting
 - 1.4.4 Audit or review Supplier
 - 1.4.5 Participate in audit or review
 - 1.4.6 Reconcile financial data
 - 1.4.7 Report project status
 - 1.4.8 Handle In-scope Request
 - 1.4.9 Continually assess risk
 - 1.4.10 Continually assess project health using 7 Keys
- 1.5 Handling Exceptions
- 2. Inception Phase
 - 2.1 Gather Business Requirements
 - 2.2 Establish Current Business Baseline
 - 2.3 Gather Solution Requirements
 - 2.4 Consolidate Solution Requirements
 - 2.5 Create Conceptual Prototype/CRP
 - 2.6 Gather Supporting Requirements
 - 2.7 Specify Key Structure Definition
 - 2.8 Create and Manage Ad Hoc Communications
 - 2.9 Conduct Executive Alignment Workshop
 - 2.10 Train Project Team
 - 2.11 Conduct Alignment Workshops - Inception
 - 2.12 Conduct Organizational Readiness Assessment
 - 2.13 Deploy Change Management Roadmap / Communication Campaign - Inception
 - 2.14 Lifecycle Objective Milestone
 - 2.15 Accepting Deliveries
 - 2.16 Monitoring
 - 2.16.1 Track and control progress
 - 2.16.2 Assess estimating basis
 - 2.16.3 Hold internal communication meeting
 - 2.16.4 Audit or review Supplier
 - 2.16.5 Participate in audit or review
 - 2.16.6 Reconcile financial data
 - 2.16.7 Report project status
 - 2.16.8 Handle In-scope Request
 - 2.16.9 Continually assess risk
 - 2.16.10 Continually assess project health using 7 Keys

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 2.17 Handling Deliveries
- 2.18 Confirming
- 3. Elaboration Phase
 - 3.1 Gather Business Requirements - Elaboration
 - 3.2 Develop Use Cases
 - 3.3 Create Conceptual Prototype/CRP - 1 - Elaboration
 - 3.4 Consolidate Specification
 - 3.5 Define Project Strategy
 - 3.6 Develop Value Realization Approach
 - 3.7 Define Infrastructure
 - 3.8 Develop Test Plans
 - 3.9 Prepare Environments - Elaboration
 - 3.10 Perform Fit Gap
 - 3.11 Specify Software Configuration
 - 3.12 Baseline Software Architecture
 - 3.13 Analyze - Elaboration
 - 3.14 Design - Elaboration
 - 3.15 Create Application Development Functional Design
 - 3.16 Design Application Development Technical Component
 - 3.17 Develop Prototypes
 - 3.18 Validate Prototypes
 - 3.19 Perform Unit Test - Elaboration
 - 3.20 Perform Integration Test - Elaboration
 - 3.21 Perform System Test - Elaboration
 - 3.22 Plan Performance Management
 - 3.23 Prepare to Acquire and Convert Data - Elaboration
 - 3.24 Monitor Sponsorship Program
 - 3.25 Deploy Change Management Roadmap/Communication Campaign - Elaboration
 - 3.26 Lifecycle Architecture Milestone
 - 3.27 Accepting Deliveries
 - 3.28 Monitoring
 - 3.28.1 Track and control progress
 - 3.28.2 Assess estimating basis
 - 3.28.3 Hold internal communication meeting
 - 3.28.4 Audit or review Supplier
 - 3.28.5 Participate in audit or review
 - 3.28.6 Reconcile financial data
 - 3.28.7 Report project status
 - 3.28.8 Handle In-scope Request
 - 3.28.9 Continually assess risk
 - 3.28.10 Continually assess project health using 7 Keys
 - 3.29 Handling Exceptions
 - 3.30 Handling Deliveries

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 3.31 Confirming
- 4. Construction Phase
 - 4.1 Finalize Requirements
 - 4.2 Analyze - Construction
 - 4.3 Design - Construction
 - 4.4 Perform Test Planning
 - 4.5 Prepare Environments - Construction
 - 4.6 Build Application Development Technical Components
 - 4.7 Implement System
 - 4.8 Perform Unit Test - Construction
 - 4.9 Perform Integration Test - Construction
 - 4.10 Perform System Test - Construction
 - 4.11 Conduct Systems Integration Test
 - 4.12 Prepare for Performance Testing
 - 4.13 Prepare for Transition
 - 4.14 Prepare for Cutover
 - 4.15 Test Infrastructure
 - 4.16 Prepare to Acquire and Convert Data - Construction
 - 4.17 Acquire and Convert Data - Construction
 - 4.18 Produce Documentation
 - 4.19 Deploy Change Management Roadmap/Communication Campaign-Construction
 - 4.20 Conduct Role/Job Impact Analysis
 - 4.21 Conduct Managers' Alignment Workshop - Construction
 - 4.22 Design End-User Training
 - 4.23 Build End-User Training
 - 4.24 Train End Users - Construction
 - 4.25 Initial Operational Capability Milestone
 - 4.26 Accepting Deliveries
 - 4.27 Monitoring
 - 4.27.1 Track and control progress
 - 4.27.2 Assess estimating basis
 - 4.27.3 Hold internal communication meeting
 - 4.27.4 Audit or review Supplier
 - 4.27.5 Participate in audit or review
 - 4.27.6 Reconcile financial data
 - 4.27.7 Report project status
 - 4.27.8 Handle In-scope Request
 - 4.27.9 Continually assess risk
 - 4.27.10 Continually assess project health using 7 Keys
 - 4.28 Handling Exceptions
 - 4.29 Handling Deliveries
 - 4.30 Confirming
- 5. Transition Phase

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 5.1 Support User Acceptance Test
- 5.2 Conduct Performance Test
- 5.3 Convert Data - Transition
- 5.4 Deploy Change Management Roadmap / Communication Campaign - Transition
- 5.5 Conduct IT Alignment
- 5.6 Train End Users
- 5.7 Finalize Documentation
- 5.8 Go Production
- 5.9 System in Production Milestone
- 5.10 Accepting Deliveries
- 5.11 Monitoring
 - 5.11.1 Track and control progress
 - 5.11.2 Assess estimating basis
 - 5.11.3 Hold internal communication meeting
 - 5.11.4 Audit or review Supplier
 - 5.11.5 Participate in audit or review
 - 5.11.6 Reconcile financial data
 - 5.11.7 Report project status
 - 5.11.8 Handle In-scope Request
 - 5.11.9 Continually assess risk
 - 5.11.10 Continually assess project health using 7 Keys
- 5.12 Handling Exceptions
- 5.13 Handling Deliveries
- 5.14 Confirming
- 6. Production Phase
 - 6.1 Manage Production System Performance
 - 6.2 Evaluate Production System
 - 6.3 Resolve Production Problems
 - 6.4 Upgrade System
 - 6.5 Deploy Change Management Roadmap/Communication Campaign - Production
 - 6.6 Plan for Future
 - 6.7 Deploy IT Transition Plan
 - 6.8 Sign-Off Milestone
 - 6.9 Accepting Deliveries
 - 6.10 Monitoring
 - 6.10.1 Track and control progress
 - 6.10.2 Assess estimating basis
 - 6.10.3 Hold internal communication meeting
 - 6.10.4 Audit or review Supplier
 - 6.10.5 Participate in audit or review
 - 6.10.6 Reconcile financial data
 - 6.10.7 Report project status
 - 6.10.8 Handle In-scope Request

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">6.10.9 Continually assess risk6.10.10 Continually assess project health using 7 Keys6.11 Handling Exceptions6.12 Handling Deliveries6.13 Confirming7. Project Closure<ul style="list-style-type: none">7.1 Closing
Assumptions:
<ul style="list-style-type: none">1. Activities will commence within constraints of the plan.2. Plan activities and deliverables will converge to meet a specified project end date.3. Unless specified otherwise by the County/FPD, services by the IBM Team will be performed and work products will be due during normal business working hours, and will exclude County/FPD observed holidays.4. The IBM Team will not be responsible for the inability to create a baseline due to failures outside of their control. Changes in the project associated with such events must follow the defined change request process.5. Approved scope changes will be updated in the plan.
Other Comments:
ENG 362 – Project Plan.mpp

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
07	Stakeholder Register	Inception
Description/Objective:		
<p>The objective of the Stakeholder Register is to provide a structured and centralized means to identify all stakeholders who will play a role in the ERP implementation project. The spreadsheet provides a continuously updated list of stakeholder information, including contact details, their project role (e.g. Business Process Owner, Subject Matter Expert (SME), Technical Lead) and their roles as reflected by a RACI (Responsible, Accountable, Consulted, and Informed) designation. Project leadership will be able to use the RACI designations to confirm that the correct stakeholders are involved appropriately in project activities.</p>		
Scope:		
<p>This document applies to all phases of the project and should be familiar to all project personnel. The Stakeholder Registration is an output of the Stakeholder Analysis performed as described in the Organizational Change Management Plan. The Registry will identify County/FPD participants only and will be owned and managed by the Project Manager.</p>		
Format:		
Microsoft Excel		
Outline:		
<ol style="list-style-type: none"> 1. Tab 1 - Guidance <ol style="list-style-type: none"> 1.1 Embedded text describing the purpose of the Registry 1.2 Embedded text describing the ownership and administration of the Registry 2. Tab 2 - Definitions <ol style="list-style-type: none"> 2.1 Column A – Functional Role/RACI Role 2.2 Column B - Functional Role/RACI Role Description 3. Tab 3 – Stakeholder Registry <ol style="list-style-type: none"> 3.1 Column A – Stakeholder Name 3.2 Column B – Business Role 3.3 Column C – Project Role 3.3 Column D – RACI Designation 3.4 Column E – Email Address 3.5 Column F – Business Phone 3.6 Column G – Alternate Phone 3.7 Column H – Building/Office Location 4. Tab 4 – Previous Stakeholders <p>Repeat columns from Tab 3. Stores information for stakeholders who are no longer assisting with the project.</p> 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

Assumptions:
1. County/FPD will identify all stakeholders, their role on the project, and RACI designation.
Other Comments:
No method deliverable [Sample/template to be provided]

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:		Deliverable Name:				Phase:	
05		RACI-VS Matrix				Start Up	
Description/Objective:							
The objective of the RACI-VS Matrix is to summarize the project deliverables, meetings, and key tasks, and identify each project participant's role in completing the deliverables as follows: Responsible, Accountable, Consulted, Informed, Verifier, or Signatory (RACI-VS).							
Scope:							
Summarizes the project deliverables and identifies each project participant's role in completing the deliverables as follows: Responsible, Accountable, Consulted, Informed, Verifier, or Signatory (RACI-VS).							
Format:							
Microsoft Excel							
Outline:							
		County/FPD			IBM		
Internal Or External	Application Transition Deliverables / Meetings / Tasks	<Customer> AMRT rep	<Customer> MCB rep	<Customer/3rd Party> Application SME	<Customer> procurement contact	<Customer> Network / Security	Transition Manager QA Group IBM PMO
E	Deliverable 1						
E	Deliverable 2						
Formal Meeting							
E	Meeting 1						
E	Meeting 2						
Key Tasks							
E	Task 1						
E	Task 2						
Assumptions:							

R = Responsible
A = Accountable
C = Consulted
I = Informed
V = Verifier
S = Signatory

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 1. Only one team member will be accountable for each deliverable/meeting/task.**
- 2. Not all team members are actively involved with all deliverables/meetings/tasks.**

Other Comments:

RACI-VS Matrix.xls

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
2.1 – 2.X	Project Management Activities/Monthly Status Report	Start Up
Description/Objective		
<p>The objective of the Project Status Report is to provide line-of-business management with an accurate assessment of the current state of the project (presented monthly). It tracks schedules compliance, change requests, project accomplishments, and open issues and risks with resolution strategies.</p>		
Scope		
<p>The report format will be reviewed with CCG during the Project Start-up phase, and the report will be updated and presented monthly in all phases of the project. It will be used by the PM/PMO (for both the IBM Team and County/FPD) to monitor progress of project activities and open items.</p>		
Format		
Microsoft Word/PowerPoint		
Outline		
<ol style="list-style-type: none"> 1. Project Schedules <ol style="list-style-type: none"> 1.1 New changes to schedule (if applicable) 2. Project Status <ol style="list-style-type: none"> 2.1 Milestones and Deliverables Achieved or Missed 2.2 Highlights 3. Quality Status 4. Project Change Requests 5. Issues 6. Risks 7. Dependencies 8. Action Items 9. Compliance Incidents 10. Entry and Exit Criteria 11. Planned Activities for Next Reporting Period 12. Attachments 		
Assumptions		
<ol style="list-style-type: none"> 1. IBM Team and County/FPD determine monthly status meeting/delivery date. 		
Other Comments		
ENG 348 – ClientStatusReportUS.doc		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
08	Software and Hardware Installation and Technical Environments Maintenance/Configuration Management	Inception
Description/Objective		
<p>The objective of the Software and Hardware Installation and Technical Environments Maintenance/Configuration Management document (up to system acceptance) is to provide the execution plan and execute the installation procedure by performing the following:</p> <ul style="list-style-type: none"> • Install and configure the IT infrastructure hardware. • Install the business application software. • Install any third-party software. • Document all installation procedures, test results and operating procedures to maintain and update fixes, patches and upgrades. • Monitor and tune the environments throughout the duration of the implementation until the proposed and implemented solution is accepted at the end of the post-production period. 		
Scope:		
<p>This document will be designed by the IBM Technical team, especially the ERP team, to lay out the detail process of installation and configuration of the IT infrastructure hardware and software based on CCG requirements.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 2.3 References 3. Background <ol style="list-style-type: none"> 3.1 General Approach 3.2 Business Drivers 3.3 Security Requirements 3.4 Hardware Requirements 3.5 Software Requirements 4. Installation Plan and Instructions <ol style="list-style-type: none"> 4.1 Pre-Installation Steps 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

<ul style="list-style-type: none">4.2 Installation Steps4.3 Post-Installation Steps4.4 Verification Checklist5. Open and Closed Issues<ul style="list-style-type: none">5.1 Open Issues5.2 Closed Issues
Assumptions:
<ul style="list-style-type: none">1. Hardware and software plan and instructions are assumed to be current and accurate.2. All the pre-install, installation, and post-installation steps will be verified by the IBM and County/FPD teams.
Other Comments:
IM.090_INSTALLATION_INSTRUCTIONS TS.030_INSTALLATION_PLAN

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
M1	Quality Gate Check – Initiation Phase	Start Up
Description/Objective:		
<p>The object of the Quality Gate Check document is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase beginning with Inception. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Project Status <ol style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions:		
<ol style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

Exhibit 2A-9
Deliverable Expectation Document (DED)

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
06	Project Kickoff	Start Up
Description/Objective:		
<p>This objective of the Project Kickoff presentation is to orient all program participants to the ERP solution framework and the tools and methodologies to be employed during implementation. The Project Kickoff will provide a comprehensive understanding of the program scope of work, timeline for delivery, project management approach, governance, project organization, and the roles and responsibilities of all participants. Participants should leave the presentation with a clear understanding of their own role and how their role relates to the success of the program.</p>		
Scope:		
<p>This document applies to the Inception phase of the project and should be familiar to all project personnel.</p> <p>The Project Kickoff presentation will provide information related to the project at a high level, but will be sufficiently comprehensive to be informative. For example, the program timeline will address project activities at the work stream level and identify key milestones for success, but will not show the tasks to complete each activity.</p>		
Format:		
Microsoft PowerPoint		
Outline:		
<ul style="list-style-type: none">● Introduction<ul style="list-style-type: none">– County/FPD Team– IBM Team● Business Objectives<ul style="list-style-type: none">– Goals– Expected Benefits– Data Gathering● Project Guiding Principles● Project Team Organization● Solution Overview● High-Level Project Schedule● Project Management Procedures<ul style="list-style-type: none">– Governance Process– Status Reporting– Leadership Meeting Schedule		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- Quality Control
- Overview of Work Streams
 - PMO
 - Change Management
 - Communications
 - Training
 - Transition Management
 - Technical
 - Development
 - Architecture
 - Security
 - Interfaces
 - Reporting
 - Functional
 - Functional Design
 - Business Process
 - Testing
- Next Steps
- Q&A
- Contacts

Assumptions:

- 1. County/FPD will identify all Project Kickoff participants.**
- 2. Project organization and project planning are complete or near completion prior to the Kickoff meeting.**

Other Comments:

ART 0660 - Assessment_Organizational_Kickoff.ppt
ART 0660 - Financial_Mgmt_Kickoff_Meeting.ppt

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
09	Organizational Change Management Plan	Inception
Description/Objective:		
<p>The objective of the Organizational Change Management (OCM) Plan is to define the approach for implementing and sustaining effective change in the transition from the legacy HR application to a new HR solution. The OCM Plan outlines activities relative to the solution as well as OCM activities in support of changes in business processes outside of the solution, position descriptions, and other organizational areas. This plan is the guiding document for managing the relationships with users of the new system during the migration to the new solution from the legacy system.</p>		
Scope		
<p>This document applies to all phases of the project, and should be familiar to all project personnel. This OCM Plan focuses on the transition activities for communications and stakeholder engagement. There is a related organizational change management document for training which is not included within this document.</p> <p>Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Introduction <ul style="list-style-type: none"> 1.1 Identification 1.2 Purpose 1.3 Background 1.4 Risks <ul style="list-style-type: none"> 1.4.1 Roles and Responsibilities 1.4.2 Project Sponsorship 1.5 Related Documents 2. Organizational Change Management Methodology <ul style="list-style-type: none"> 2.1. Approach 2.2. Team Structure and Responsibilities <ul style="list-style-type: none"> 2.2.1. Roles and Responsibilities 2.3. Project Sponsorship Roles and Responsibilities <ul style="list-style-type: none"> 2.3.1. Sponsorship 2.3.2. Sponsorship Roles and Responsibilities 2.3.3. VA Sponsorship 2.3.4. VA Sponsorship Roles and Responsibilities 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 2.4. Transition Points of Contact (POCs) and Responsibilities
 - 2.5. Support Team and Responsibilities
 - 3. OCM and Communication Implementation
 - 3.1. Communication Plan
 - 3.1.1. Guiding Principles
 - 3.1.2. Stakeholders
 - 3.1.3. Communication Activities
 - 3.1.4. Communication Measurement
 - 3.1.5. Transition and Communication Matrix
 - 3.2. Sponsor Plan
 - 3.2.1. Sponsor Challenges
 - 3.2.2. Stakeholders for Sponsor Outreach
 - 3.2.3. Sponsor Engagement Plan and Risk Mitigation
 - 4. Job Impacts
 - 4.1. Transition Points of Contact (POCs) Implementation
 - 4.1.1. Implementation Plan and Quantity
 - 4.1.2. Schedule of Activities
 - 4.1.3. Transition POC Playbook
 - 4.2. Support Team Implementation
 - 4.2.1. Schedule of Activities
 - 4.3. Resistance Management
 - 4.4. Schedule of Activities
 - 4.4.1. Communication and OCM Roadmap
 - 4.4.2. Integrated Schedule
 - 5. Acronyms
- Attachment A - Approval Signatures**

Assumptions:

- 1. County/FPD will identify all impacted stakeholders.
- 2. The Training Plan deliverable is considered part of the overall OCM Plan.
- 3. Information needed to define and analyze stakeholder impact will be completed on time by responsible parties and changes will be communicated in time for the Change Management team to complete analysis.

Other Comments:

No method deliverable

[Sample/template to be provided]

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
10	Core Project Team Training Plan	Inception
Description/Objective:		
<p>The objective of the Core Project Team Training Plan is to assist the project team in identifying the learning requirements and paths to enable the project team members successfully fulfill their role on the project. The requirements cover learning of products, tools, technical and functional content, project management and people skills.</p>		
Scope:		
<p>This document applies to the early phase of the project and is targeted at all project personnel (both IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline		
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Purpose of Document 1.2 Background 1.3 Overview of Document 2. Project Team Learning Scope <ol style="list-style-type: none"> 2.1 Project Team Learning Needs 2.2 Individual Learning Paths for Project Team 2.3 Measurement Methods 3. Administration of Project Team Learning Materials & Events <ol style="list-style-type: none"> 3.1 Inventory of Learning Events and Materials 3.2 Schedule of Common Learning Events 3.3 Learning Agents/Sources for Project Team Learning Delivery 3.4 Special Considerations for Customization 4. Issues Management <ol style="list-style-type: none"> 4.1 Open Issues 4.2 Closed Issues 5. Appendix <ol style="list-style-type: none"> 5.1 Data Gathering Tool for Project Team Skills Inventory 		
Assumptions:		
<ol style="list-style-type: none"> 1. County/FPD will identify all impacted stakeholders. 2. Information needed to analyze and define project team needs will be made available on time by responsible parties and changes will be communicated in time for Training Team to complete 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

<p>analysis.</p> <p>3. Staffing and skill sets will be sufficient to finish the project on time and on budget.</p>
<p>Other Comments:</p>
<p>TR.020_Project_Team_Learning_Plan</p>

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
11	Cloud Environment Infrastructure Design and Implementation Plan	Inception
Description/Objective:		
<p>The objective of the Infrastructure Design and Implementation Plan deliverable is to submit the architecture and design of the proposal, and address the needs for all ERP implementation and support activities. The deliverable shall provide technical architecture and infrastructure design for each of the production and non-production environments proposed, containing, at a minimum, information on the following:</p> <ul style="list-style-type: none"> a) Methodology, tools, procedures, activities, and services for infrastructure installation, configuration, and change b) Recommendations/determination of any physical upgrades to current County/FPD data center c) Hardware specifications, sizing, and capacity planning, including any special cabinet dimensions and specifications of PDUs supplied d) Software bill of materials including system software, application software, middleware, and databases e) Security infrastructure f) Network and connectivity, including top of rack switch requirements g) Performance characteristics h) Availability, flexibility, and growth requirements i) Facilities requirements for the data center, including amount of power per cabinet and receptacle requirements 		
Scope:		
<p>This document will be generated by the IBM technical team explaining on the initial design and architecture. It will also include the application mapping, data center cloud environment infrastructure design and implementation plan and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Document Control <ul style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ul style="list-style-type: none"> 2.1 Purpose 2.2 Scope 3. Application Functional Architecture 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 4. Key Architecture Subsystems**
- 5. Database and Applications Server Architecture Summary**
 - 5.1 Description**
 - 5.2 Production Environment**
 - 5.3 Test Environment**
 - 5.4 Other Non-Production Environments**
- 6. Data Center/Hosting Facility – Corporate**
 - 6.1 Environment Hosting**
 - 6.2 Sharing of Environments**
 - 6.3 Database Tier**
 - 6.4 Application Tier**
- 7. Desktop Client Tier**
 - 7.1 Deployment Site - Corporate**
- 8. Open and Closed Issues**
 - 8.1 Open Issues**
 - 8.2 Closed Issues**

Assumptions:

- 1. The information on the initial architecture and application mapping provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of the architecture design and application mapping will be a collaborative effort between the IBM and County/FPD Teams.**

Other Comments:

TA.070_INITIAL_ARCHITECTURE_AND_APPLICATION_MAPPING

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
M2	Quality Gate Check – Project Planning Phase	Inception
Description/Objective:		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Project Status <ol style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions:		
<ol style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
12	Business Process Improvement (BPI) Recommendations	Elaboration
Description/Objective:		
<p>The Business Process Improvement Recommendation document outlines the Future Process Model constructed for the ERP system. Organized by process area, it includes recommendations and descriptions for future business processes supported by analysis on how the recommendation was reached. It further documents the triggering events that drive the business areas that are to be automated and describes the future business process that the business will execute in response to each of those events as a set of one or more activities.</p>		
Scope:		
<p>This document will primarily be developed and used by the IBM Functional Team to convey recommended process changes to County/FPD leadership (or potential end users). This will also act as input to the Final To-Be Functional Design and Business Changes deliverable (#27).</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction 3. Event Catalog for <Business Area Name> 4. Business Actors for <Business Area Name> 5. Process Descriptions for <Business Area Name> <ol style="list-style-type: none"> 5.1 Process Step Catalog for <Process Title> 6. Process Flow Diagram 7. Open and Closed Issues <ol style="list-style-type: none"> 7.1 Open Issues 7.2 Closed Issues 		
Assumptions:		
<ol style="list-style-type: none"> 1. Business Areas are defined by County/FPD. 2. County/FPD team will participate in As-Is workshops hosted by IBM to identify and describe current business processes to compare to delivered system functionality. 		
Other Comments:		

Exhibit 2A-9
Deliverable Expectation Document (DED)

RD.011 Future Process Model

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
13	RIDS Analysis	Elaboration
Description/Objective:		
<p>The objective of the Reports, Interface and Integration, Data Conversion, and Security (RIDS) Analysis is to analyze reports, interfaces, data, and security as follows:</p> <p>The RIDS analysis work is As-Is condition analysis of reports, interfaces, data and security. For each of the RIDS element, the analysis must identify in the document the following:</p> <ul style="list-style-type: none"> • Review and compile a list of all current queries and reports that are prepared for and used by end users, managers, executives, Board, state and federal agencies and grantors. Conduct and document reporting needs analysis, which must identify and recommend proposed solution reporting requirements. • Review and compile current system interfaces and integration points. Based on proposed solution analysis, identify all necessary interfaces and system integration requirements. • The data condition assessment must identify the target system data needs and assess those needs against current data condition and availability. If the Proposer's assessment determines data quality issues, then the Proposer shall develop a data cleansing plan (approach, tools, resources, etc.) and assist the County/FPD staff to cleanse the data. • As part of Data Conversion exercise, Proposer would assume the responsibility of complete and accurate data conversion from legacy ERP and third-party applications into the proposed ERP solution. Additionally, Proposer should produce reconciliation reports for County's verification and sign off. • Review and compile the current security model and assess against the proposed solution. Based on the analysis, recommend a best- practice security model, including its governance. 		
Scope:		
<p>This document will be generated by the IBM technical team explaining on RIDS analysis – analysis of reports, interfaces, data and security which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

3. Integration Architecture Strategy
 - 3.1 System Level Integration Requirements
 - 3.2 Functional Overview
 - 3.3 Technical Overview
4. Data Acquisition and Conversion Requirements
 - 4.1 Data Acquisition and Conversion Overview
 - 4.2 Data Acquisition – Source System Identification
 - 4.3 Data Acquisition – Source System Constraints
 - 4.4 Data Acquisition – Data Volumes
 - 4.5 Data Acquisition - Strategy
 - 4.6 Data Acquisition – Data Load Strategy
 - 4.7 Data Conversion - Background
 - 4.8 Data Conversion – Scope
 - 4.9 Data Conversion – Constraints
 - 4.10 Data Conversion – Requirements
 - 4.11 Data Conversion – Validation and Data Cleaning Requirements
 - 4.12 Data Conversion – Error Condition
 - 4.13 Data Conversion – Process Flows
 - 4.14 Data Conversion – Testing Strategy
 - 4.15 Data Quality – Objectives
 - 4.16 Data Quality – Processes
 - 4.17 Data Quality – Data Ownership
 - 4.18 Data Quality – Transformation Details
 - 4.19 Data Cleansing – Objectives
 - 4.20 Data Cleansing – Possible Stages
 - 4.21 Data Cleansing – Approach
 - 4.22 Converted and Verified Data – Temporary Table Creation Components
 - 4.23 Converted and Verified Data – Upload Components
 - 4.24 Converted and Verified Data – Translation Components
 - 4.25 Converted and Verified Data – Interface
 - 4.26 Converted and Verified Data – Initial Load of Instance
5. Security Matrix
6. Security and Control Strategy
 - 6.1 Background
 - 6.2 Security and Control
 - 6.3 Security Requirements Traceability Matrix
 - 6.4 Security Administration
7. Open and Closed Issue
 - 7.1 Open Issues
 - 7.2 Closed Issues

Exhibit 2A-9

Deliverable Expectation Document (DED)

Assumptions:

- 1. The information on the Reporting and Fit Analysis provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of the Reporting and Fit Analysis strategies will be a collaborative effort between the IBM and County/FPD teams.**

Other Comments:

**TA.030_INTEGRATION_ARCHITECTURE_STRATEGY,
CV.010_DATA_ACQ_AND_CONVERSION_REQUIREMENTS,
CV.020_DATA_ACQ_CONVERSION_AND_DATA_QUAL_STRATEGY, CV.928 - Data Cleansing Approach -
PeopleSoft HCM, CV.065_CONVERTED_AND_VERIFIED_DATA, ART 0565 -
Security_Plan_Example_Template, TA.090_SECURITY_AND_CONTROL_STRATEGY,
RA.090_REPORTING_FIT_ANALYSIS.XLS,**

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
14.1	Updated Business Requirements and Traceability Matrix	Elaboration

Description/Objective:

The objective of the Updated Business Requirement and Traceability Matrix is to create an updated business requirements and traceability matrix based on BPI recommendations and RIDS analysis. The IBM functional and technical teams will create an updated business requirements and traceability matrix, which will document all system functionality, reports, interface, data conversion, and security requirements.

This will be updated in the Construction phase to map the To-Be processes and to identify requirements that will not be implemented, including justifiable reasons (Deliverable #37).

Scope:

This matrix provides a traceability of requirements through the project life cycle. It will be used by the technical team as a baseline requirements document for design work initiation. The functional team will use it at the end of the construction phase to validate the fulfillment of business requirements with specific functionality from the proposed solution, and in the test phase to create test cases.

Format:

Microsoft Excel

Outline:

Customer Business Requirements						Test Type		
System Requirements						UAT Test		
Component Requirements						UAT Test		
Requirements						Test Method	Test Case	Test Result
		Priority (High, Medium, Low)	Requirement Status	Design Documents	Build Components	Customer Acceptance Criteria		
R1								
R1	S1.1							
R1	S1.1							
R1								
R1	S1.2							
R1	S1.2							
R1	S1.2							
R2								
R2	S2.1							
R2								
R2	S2.2							
R3								
R4								

Assumptions:

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 1. IBM and County/FPD Teams will collaborate in As-Is and To-Be Workshops to identify system requirements.**
- 2. Fit-gap analysis and customization approvals will determine implementation status of requirements.**

Other Comments:

RD.9.15 – ReqmtsTraceabilityandVerificationMatrixUS.xls

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
15	Core Project Team Training Report	Elaboration
Description/Objective		
<p>The objective of this document is to assist with the implementation of the planned learning events for the project team. These learning events include tools, applications, and all knowledge and skills areas deemed required for the effective functioning of the team.</p>		
Scope		
<p>This document applies to the early phase of the project, and is targeted at all project personnel (both IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Purpose 1.2 Overview 2. Administration of Learning Events for Project Team <ol style="list-style-type: none"> 2.1 Learning Event Log 2.2 Consolidated Learning Event Log by Functional Team 2.3 Learning Event Evaluation Form 2.4 Follow-Up 2.5 Business Requirements Notation 3. Issues Management <ol style="list-style-type: none"> 3.1 Open Issues 3.2 Closed Issues 4. Appendices <ol style="list-style-type: none"> 4.1 Ice Breakers 4.2 Team Building Interludes 4.3 High Performance Team Development Modules 		
Assumptions:		
<ol style="list-style-type: none"> 1. County/FPD will identify all impacted project-team personnel. 2. Information needed to execute training will be made available on time by responsible parties and changes will be communicated in time for Training Team to complete analysis. 3. Staffing and skill sets will be sufficient to finish the project on time and on budget. 		
Other Comments:		

Exhibit 2A-9
Deliverable Expectation Document (DED)

Used TR.50_Project_Team_Lrng_Events_Admin

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
M3	Quality Gate Check – Requirements Analysis Phase	Elaboration
Description/Objective:		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Project Status <ol style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions:		
<ol style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies are documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number	Deliverable Name	Phase
21a	Security Controls - Requirements Analysis Phase	Elaboration
Description/Objective:		
<p>The objective of the Security Control deliverable is to document the security controls designed by the IBM team and to document how the security will allow access by authorized individuals and devices and to disallow access to all others. The authorized individuals may be employees, technology service provider (TSP) employees, vendors, contractors, customers, or visitors. Security Control access should be authorized and provided only to individuals whose identity is established, and their activities should be limited to the minimum required for business purposes.</p>		
<p>An effective security control mechanism encompasses numerous controls to safeguard and limits access to key information system assets at all layers in the network stack. This section addresses logical and administrative controls, including security access rights administration for individuals and network access issues. The Security and Compliance document that was prior phases will be updated with additional details that result from the current phase.</p>		
Scope:		
<p>This document will be designed by the IBM technical team implementing the security controls required to be included in the concept development phase and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.1 Change Record1.2 Reviewers2. Introduction<ul style="list-style-type: none">2.1 Purpose2.2 Scope2.3 References3. Background<ul style="list-style-type: none">4.1 General Approach4.2 Business Drivers4.3 Security Requirements4. Security and Control<ul style="list-style-type: none">4.1 Authentication		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 4.2 Network Security
- 4.3 Web Pages Security
- 4.4 Application Level Security
- 4.5 Database Security
- 4.6 Data Security
- 4.7 Operating System Security
- 4.8 Remote and Mobile Access
- 4.9 Identity Management
- 4.10 Privacy and Permanence
- 4.11 Data Integrity and Data Non-Repudiation
- 4.12 Auditability and Accountability
- 4.13 Physical Security
- 5. Security Requirements Traceability Matrix
- 6. Security Administration
- 7. Open and Closed Issues
 - 7.1 Open Issues
 - 7.2 Closed Issues

Assumptions:

1. Data and information provided by County/FPD is assumed to be current and accurate.
2. Implementation of Roles and Permission Lists will be a collaborative effort between the IBM and County/FPD Teams.

Other Comments:

TA.090_SECURITY_AND_CONTROL_STRATEGY

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:								
16	Fit-Gap Analysis and Findings	Elaboration								
Description/Objective:										
<p>This objective of the Fit-Gap Analysis and Findings deliverable is to outline the software fits and gaps to County/FPD's business requirements. These documents will be mapped to functionality or documented as a gap. Gaps identified will then be associated with proposed resolutions which might include options to customize, find a workaround, eliminate the requirement, and/or propose a commercial off-the-shelf product.</p> <p>If a gap resolution requires customized development, it will be added to the Cost-Benefit Analysis and Customizations Approval document (Deliverable #26)</p>										
Scope:										
This will be used by the functional and technical teams when developing and configuring the solution.										
Format:										
Microsoft Excel										
Outline:										
Req ID	Req Descr	Existing/ New	Business Process	Owner	Priority	Fit Gap Status	Resolution	Complexity	In Scope	Comments
LEGEND:										
<p>REQ ID: Reflects the reference id of the particular requirement.</p> <p>REQUIREMENT DESCRIPTION: Provides a detail description of the requirement.</p> <p>EXISTING/NEW: Reflects whether the requirement is currently supported within the legacy application/ the requirement has been identified as part of the current project.</p> <p>PROCESS: Denotes the requirement's underlying business process.</p> <p>OWNER: Defines the Moody resource that has reviewed and syndicated the requirement in order to assign the requirement's priority classification.</p> <p>PRIORITY: Reflects the priority of the requirement as noted below:</p> <ul style="list-style-type: none"> • (1) High Need: The requirement is mandatory to support the business process and/or comply with accounting practices • (2) Medium Need: The requirement is indirectly required to support the business process and/or comply with accounting practices • (3) Low Need: The requirement is a nice-to-have requirement that will help streamline in the existing environment 										

Exhibit 2A-9

Deliverable Expectation Document (DED)

• **(4) Not Required:** The requirement is not required at this point in the environment
FIT/GAP: Specifies whether functionality needs customization (gap)
RESOLUTION: Describes the expected resolution in order for the requirement to be implemented (Business Process Change, RICEW Build, Configuration, Other)
COMPLEXITY: Determines complexity of the requirement (High/Medium/Low)
IN SCOPE: Identifies whether or not the requirement is in scope of the project implementation (Yes/No)
COMMENTS: Provides additional information about the requirement that should be considered during subsequent implementation efforts.

Assumptions:

1. All resolutions/workarounds will be managed within time, scope, and budget constraints of the project.
2. Priority will be determined with County/FPD input.

Other Comments:

Requirements and Fit-Gap Assessment-1.xls

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number	Deliverable Name	Phase
17	Functional Specifications for Reports	Elaboration
Description/Objective:		
<p>This objective of the Functional Specifications for Reports deliverable is to describe the functional specification of all report requirements. It helps to gain a clear understanding of the functionality design that is required to be delivered.</p>		
Scope		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their technical design and build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewer 2. Object Information 3. Functional Design Specifications <ol style="list-style-type: none"> 3.1 Functional Overview <ol style="list-style-type: none"> 3.1.1 Purpose 3.1.2 Objectives and Scope 3.1.3 Definitions 3.1.4 Key Contributors and Contacts 3.1.5 Document References 3.2 Report Specification <ol style="list-style-type: none"> 3.2.1 Assumptions 3.2.2 Report Parameters 3.2.3 Selection Criteria 3.2.4 Output Type 3.2.5 Report Sample 3.2.6 Report Layout 3.2.7 Report Title 3.2.8 Report Logo, Header and Footer 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

3.2.9	Report Columns/Sub Title
3.2.10	Report Grouping, Order by, Totals and Page Break
3.2.11	Report Log (NA for Queries)
3.2.12	Notification requirement (NA for Queries)
3.3	Application Set up
3.3.1	Concurrent Program Definition
3.3.2	Security
3.3.3	User Procedures
3.3.4	Frequency
3.3.5	Incompatibilities
3.3.6	Dependencies/Prerequisites
3.3.7	System Configuration
3.3.8	Volume Estimates
3.3.9	Performance Requirements
3.3.10	Error/Message Handling
3.3.11	Validation/Reconciliation
3.3.12	Special Requirements
3.4	System Test Plan and Test Cases
4.	Issue Log
5.1	Open Issues
5.2	Closed Issues

Assumptions:

1. Documented report requirements are accurate.
2. Report output will be clear and understandable.

Other Comments:

AD.930 Functional Design Specification – EBS Report.doc

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
18	Functional Specifications for Interfaces and Systems Integration	Elaboration
Description/Objective:		
<p>This objective of the Functional Specifications for Interfaces and Systems Integration deliverable is to describe the functional I specification of all application interfaces and integration requirements between different software packages that make up the proposed solution. It helps to gain a clear understanding of the functionality design that is required to be delivered.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their technical and build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
<p>Microsoft Word</p>		
Outline:		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.1 Change Record1.2 Approvers1.3 Reviewer2. Object Information3. Functional Specifications<ul style="list-style-type: none">3.1 Functional Overview<ul style="list-style-type: none">3.1.1 Purpose3.1.2 Objectives and Scope3.1.3 Definitions3.1.4 Key Contributors and Contacts3.1.5 Document References3.2 Functional Specification<ul style="list-style-type: none">3.2.1 Process Information3.2.2 Assumptions3.2.3 Components of the Solution3.2.4 Data Mapping Definition3.2.5 Reports Definition3.2.6 Notification Requirements		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

3.2.7	Concurrent Program Definition
3.2.8	User Procedures
3.2.9	System Configuration
3.2.10	Frequency
3.2.11	Incompatibilities
3.2.12	Dependencies/ Prerequisites
3.2.13	Selection Criteria
3.2.14	Disposition of Non-Converted Data
3.2.15	Data Cleansing Procedures
3.2.16	Volume Estimates
3.2.17	Performance Requirements
3.2.18	Error/Message Handling
3.2.19	Validation/Reconciliation
3.2.20	Special Requirements
3.3	System Test Plan/Test Cases
4.1	
4.	Issue Log
5.1	Open Issues
5.2	Closed Issues

Assumptions:

- 1. Documented interface requirements are accurate.**
- 2. If applicable, temporary interfaces are included.**

Other Comments:

AD.930 Functional Design Specification – EBS Interface_Conversion.doc

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
19	Functional Specifications for Data Conversion	Elaboration
Description/Objective:		
<p>This objective of the Functional Specifications for Data Conversion deliverable is to describe the functional specification of all data conversion requirements for each application. It helps to gain a clear understanding of the functionality design that is required to be delivered.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their technical and build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewer 2. Object Information 3. Functional Specifications <ol style="list-style-type: none"> 3.1 Functional Overview <ol style="list-style-type: none"> 3.1.1 Purpose 3.1.2 Objectives and Scope 3.1.3 Definitions 3.1.4 Key Contributors and Contacts 3.1.5 Document References 3.2 Functional Specification <ol style="list-style-type: none"> 3.2.1 Process Information 3.2.2 Assumptions 3.2.3 Components of the Solution 3.2.4 Data Mapping Definition 3.2.5 Reports Definition 3.2.6 Notification Requirements 3.2.7 Concurrent Program Definition 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

3.2.8	User Procedures
3.2.9	System Configuration
3.2.10	Frequency
3.2.11	Incompatibilities
3.2.12	Dependencies/ Prerequisites
3.2.13	Selection Criteria
3.2.14	Disposition of Non-Converted Data
3.2.15	Data Cleansing Procedures
3.2.16	Volume Estimates
3.2.17	Performance Requirements
3.2.18	Error / Message Handling
3.2.19	Validation / Reconciliation
3.2.20	Special Requirements
3.3	System Test Plan / Test Cases
4.1	
4.	Issue Log
5.1	Open Issues
5.2	Closed Issues
Assumptions:	
1. Documented conversion requirements are accurate.	
Other Comments:	
AD.930 Functional Design Specification – EBS Interface_Conversion.doc	

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number	Deliverable Name	Phase
21.1	Security Controls - Design Phase	Elaboration
Description/Objective:		
<p>The objective of the Security Control deliverable is to document the security controls designed by the IBM team and to document how the security will allow access by authorized individuals and devices and to disallow access to all others. The authorized individuals may be employees, technology service provider (TSP) employees, vendors, contractors, customers, or visitors. Security Control access should be authorized and provided only to individuals whose identity is established, and their activities should be limited to the minimum required for business purposes.</p>		
<p>An effective security control mechanism encompasses numerous controls to safeguard and limits access to key information system assets at all layers in the network stack. This section addresses logical and administrative controls, including security access rights administration for individuals and network access issues. The Security and Compliance document that was prior phases will be updated with additional details that result from the current phase.</p>		
Scope:		
<p>This document will be designed by the IBM technical team implementing the security controls required to be included in the concept development phase and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 2.3 References 3. Background <ol style="list-style-type: none"> 3.1 General Approach 3.2 Business Drivers 3.3 Security Requirements 4. Security and Control <ol style="list-style-type: none"> 4.1 Network Security 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">4.2 Web Pages Security4.3 Application Level Security4.4 Database Security4.5 Data Security4.6 Operating System Security4.7 Remote and Mobile Access4.8 Identity Management4.9 Privacy and Permanence4.10 Data Integrity and Data Non-Repudiation4.11 Auditability and Accountability4.12 Physical Security5. Security Requirements Traceability Matrix6. Security Administration7. Open and Closed Issues<ul style="list-style-type: none">7.1 Open Issues7.2 Closed Issues
Assumptions:
<ul style="list-style-type: none">1. Data and information provided by County/FPD is assumed to be current and accurate.2. Implementation of Roles and Permission Lists will be a collaborative effort between the IBM and County/FPD Teams.
Other Comments:
TA.090_SECURITY_AND_CONTROL_STRATEGY

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
22	Cost-Benefit Analysis and Customizations Approval	Elaboration
Description/Objective:		
The objective of the Cost-Benefit Analysis and Customizations Approval deliverable is to document cost-benefit-value analysis of the proposed customization recommendation (for business process gaps and complex reports development) based on the gap analysis (in the fit-gap analysis deliverable).		
Scope:		
The information within this deliverable will be presented for review and approval by the County/FPD's customizations approval committee.		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.1 Change Record1.2 Reviewers2. Introduction<ul style="list-style-type: none">2.1 Purpose2.2 Related Documents3. Gap Details<ul style="list-style-type: none">3.1 Requirement Details3.2 GAP Details3.3 Resolution Alternatives Analysis4. Gap Resolution Approach and Estimates<ul style="list-style-type: none">4.1 Selected Approach and Impacts4.2 Effort Estimates5. Open and Closed Issues<ul style="list-style-type: none">5.1 Open Issues5.2 Closed Issues		
Assumptions:		
<ul style="list-style-type: none">1. IBM Team and County/FPD determine meeting/delivery date.2. County/FPD designates customizations approval committee prior to presentation.3. IBM Team and County/FPD will mutually agree on decision deadline from approval committee.		

Exhibit 2A-9
Deliverable Expectation Document (DED)

Other Comments:

AN.030_GAP_RESOLUTIONS.DOC

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
23	Final To-Be Functional Design and Business Changes	Elaboration
Description/Objective:		
<p>The objective of the Final To-Be Functional Design and Business Changes deliverable is to detail the To-Be business practices and functional design based on BPR (deliverable #16), fit-gap analysis, RIDS analysis, and customization analysis finding. It further defines and documents role based business process flows, business rules (for example, payroll rules) inputs, outputs, and workflow requirements.</p>		
Scope:		
<p>This document will be used by the technical and functional teams to design and configure the system to meet the necessary functionality of the new business processes. The OCM team will also use this as input to project outreach communications and training.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none">1. Document Control<ol style="list-style-type: none">1.1 Change Record1.2 Reviewers2. Introduction3. Event Catalog for <Business Area Name>4. Business Actors for <Business Area Name>5. Process Descriptions for <Business Area Name><ol style="list-style-type: none">5.1 Process Step Catalog for <Process Title>6. Process Flow Diagram7. Open and Closed Issues<ol style="list-style-type: none">7.1 Open Issues7.2 Closed Issues		
Assumptions:		
<ol style="list-style-type: none">1. Processes cover all utilized system functionality.2. If applicable, new roles are included.		
Other Comments:		
RD.011_FUTURE_PROCESS_MODEL.DOC		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
20	Functional Specifications for Workflow	Elaboration
Description/Objective:		
<p>The objective of the Functional Specifications for Workflow is to define and document functional workflow specifications for each of the applicable business processes based on the To-Be documentation.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their technical and build activity. In addition, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
<p>Microsoft Word</p>		
Outline:		
<ul style="list-style-type: none"> 1. Document Control <ul style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewer 2. Object Information 3. Functional Specifications <ul style="list-style-type: none"> 3.1 Functional Overview <ul style="list-style-type: none"> 3.1.1 Purpose 3.1.2 Objectives and Scope 3.1.3 Definitions 3.1.4 Key Contributors and Contacts 3.1.5 Document References 3.2 Functional Specification <ul style="list-style-type: none"> 3.2.1 Process Information 3.2.2 Assumptions 3.2.3 Components of the Solution 3.2.4 Data Mapping Definition 3.2.5 Reports Definition 3.2.6 Notification Requirements 3.2.7 Concurrent Program Definition 3.2.8 User Procedures 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

3.2.9	System Configuration
3.2.10	Frequency
3.2.11	Incompatibilities
3.2.12	Dependencies/ Prerequisites
3.2.13	Selection Criteria
3.2.14	Disposition of Non-Converted Data
3.2.15	Data Cleansing Procedures
3.2.16	Volume Estimates
3.2.17	Performance Requirements
3.2.18	Error/Message Handling
3.2.19	Validation/Reconciliation
3.2.20	Special Requirements
3.3	System Test Plan/Test Cases
4.	Issue Log
5.1	Open Issues
5.2	Closed Issues
Assumptions:	
1. Documented workflow requirements are accurate.	
Other Comments:	
AD.930 Functional Design Specification – EBS Interface_Conversion.doc	

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
24	Training Assessment Findings and Recommendations	Elaboration
Description/Objective:		
<p>The objective of the Training Assessment Findings and Recommendations is to present the key findings of the training assessment and the resulting strategy for overall training development and rollout. It is formulated through analysis of current training and operational environments and from information obtained through surveys and interviews conducted with nominated personnel deemed representative of the business. The document reports on the target audience, appropriate training delivery, curriculum, communication, and issues identified.</p>		
Scope:		
<p>This document applies to the design phase of the project, and should be familiar to all training and management personnel (both IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Introduction <ol style="list-style-type: none"> 1.1 Purpose 1.2 Background 1.3 Related Documents 2. Target Audience <ol style="list-style-type: none"> 2.1 Training Audience Groupings 2.2 Training Audience 2.3 Audience Characteristics 2.4 Communication Methods/Preferences 3. Training Delivery Methods <ol style="list-style-type: none"> 3.1 Classroom training 3.2 eLearning/Computer-Based Training (CBT) 3.3 On-the-job-training/coaching 3.4 Other training methods 4. Course Curriculum <ol style="list-style-type: none"> 4.1 General Curriculum 4.2 Role-based Curriculum 4.3 Development Standards and Conventions 5. Issues Identified <ol style="list-style-type: none"> 5.1 Challenges to Training Delivery 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 5.2 Barriers to Training
- 6. Scheduling and Rollout
 - 6.1 Training Facilities
 - 6.2 Pilot Schedule
 - 6.3 UAT Schedule
 - 6.4 Training Schedule
- 7. Training Support and Management
 - 7.1 Training Support Methods
 - 7.2 Participant Evaluation Process
 - 7.3 Training Assessment & Feedback
 - 7.4 Review and Sign-off Process
- 8. Recommendations
- 9. Appendices
 - 9.1 Sample Analysis Questionnaire
 - 9.2 Audience Analysis
 - 9.3 Current Training Methods & Effectiveness - by Role
 - 9.4 Communication Methods & Effectiveness - by Role

Assumptions:

1. All of the business needs defined for this project are addressed.
2. Staffing and skill sets will be sufficient to finish the project on time and on budget.

Other Comments:

No method deliverable

[Sample/template to be provided]

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
M\$	Quality Gate Check Design Phase (Functional)	Elaboration
Description/Objective		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format		
<p>Microsoft Word</p>		
Outline		
<ol style="list-style-type: none"> 1. Project Status <ol style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions		
<ol style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies documented in separate log and consistently updated to use for report. 		
Other Comments		
<p>ENG 348 – ClientStatusReportUS.doc</p>		

Exhibit ZA-9
Deliverable Expectation Document (DED)

Development Phase

DED Number:	Deliverable Name:	Phase:
25	Technical Specifications for Reports	Construction
Description/Objective:		
<p>This objective of the Technical Specifications for Reports deliverable is to describe the technical specification of all report requirements. It helps to gain a clear understanding of the functionality and technical design that is required to be delivered.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Document Control <ul style="list-style-type: none"> 1.4 Change Record 1.5 Approvers 1.6 Reviewer 2. Object Information 3. Technical Design Specifications <ul style="list-style-type: none"> 4.1 Technical Overview <ul style="list-style-type: none"> 4.1.1 Overview 4.1.2 Description 4.1.3 Assumptions 4.1.4 Roles and Responsibilities 4.1.5 Document References 4.2 Reports Definition <ul style="list-style-type: none"> 4.2.1 Layout 4.2.2 Processing Logic 4.2.3 Base Reports 4.2.4 Report Sections 4.2.5 Parameters 4.2.6 Selection Criteria 4.2.7 Report Logo, Header and Footer 4.2.8 Report Header Section 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 4.2.9 Report Trailer Section
- 4.2.10 Report Columns
- 4.2.11 Report Grouping, Order by, Totals and Page Break
- 4.2.12 Error Handling
- 4.2.13 XML Publisher
- 4.2.14 Data Template
- 4.2.15 XML Output
- 4.2.16 RTF Template
- 4.3 PL/SQL Program Design
 - 4.3.1 Program Elements
 - 4.3.2 Program Flow Diagram
 - 4.3.3 Pseudo-Code
 - 4.3.4 Error Handling
 - 4.3.5 Table and View Usage
- 4.4 Pseudo Code
- 4.5 Application Set up
 - 4.5.1 New/Updated Seed Data
 - 4.5.2 Descriptive Flexfield
 - 4.5.3 Value Sets
 - 4.5.4 Concurrent Program Executable
 - 4.5.5 Concurrent Program Definition
 - 4.5.6 Concurrent Request Set
 - 4.5.7 Profile Options
 - 4.5.8 Messages
 - 4.5.9 Menus
 - 4.5.10 Applications
 - 4.5.11 Forms
 - 4.5.12 Functions
 - 4.5.13 XML Publisher Template Manager
- 4.6 Database Design
 - 4.6.1 Overview
 - 4.6.2 New Database Objects
 - 4.6.3 Modified Database Objects
 - 4.6.4 Database Physical Layout/Entity Relationship Diagram for New Tables
- 4.7 Exception Handling
 - 4.7.1 Error and Message Processing
- 4.8 Unit Test Conditions
 - 4.8.1 Unit Test Plan
- 4.9 Integration Considerations
 - 4.9.1 Prerequisites

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">4.9.2 Submission/Launching4.9.3 Post-Requisites4.10 Performance Considerations<ul style="list-style-type: none">4.10.1 Volume Consideration4.11 Installation Requirements4. Issue Log<ul style="list-style-type: none">5.3 Open Issues5.4 Closed Issues
Assumptions:
<ul style="list-style-type: none">3. Documented report requirements are accurate.4. Report output will be clear and understandable.
Other Comments:
AD.930 Technical Design Specification – EBS Report.doc

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
26	Technical Specifications for Interfaces and Systems Integration	Construction
Description/Objective:		
<p>This objective of the Technical Specifications for Interfaces and Systems Integration deliverable is to describe the technical specification of all application interfaces and integration requirements between different software packages that make up the proposed solution. It helps to gain a clear understanding of the functionality and technical design that is required to be delivered.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.4 Change Record1.5 Approvers1.6 Reviewer3.4 Object Information2. Technical Specifications<ul style="list-style-type: none">4.2 Technical Overview<ul style="list-style-type: none">4.2.1 Overview4.2.2 Description4.2.3 Assumptions4.2.4 Roles and Responsibilities4.2.5 Document References4.3 Technical Specification<ul style="list-style-type: none">4.3.1 Program Flow4.3.2 Component Technical Specifications4.3.3 Program Elements4.3.4 Pseudo-Code4.3.5 Remote System Details4.3.6 Error Handling		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 4.4 Data Mapping**
 - 4.4.1 Data File Names**
 - 4.4.2 Source to Target Mapping – Data Record**
 - 4.4.3 Source to Target Mapping – Control Record**
 - 4.4.4 Data Extract File Layout**
- 4.5 Application Set up**
 - 4.5.1 New/Updated Seed Data**
 - 4.5.2 Value Sets**
 - 4.5.3 Concurrent Program Executable**
 - 4.5.4 Concurrent Program Definition**
 - 4.5.5 Concurrent Request Set**
 - 4.5.6 Profile Options**
 - 4.5.7 Messages**
 - 4.5.8 Scheduling Details**
- 4.6 Database Design**
 - 4.6.1 New Database Objects**
 - 4.6.2 Modified Database Objects**
 - 4.6.3 Database Physical Layout / Entity Relationship Diagram for New Tables**
- 4.7 Exception Handling**
 - 4.7.1 Error and Message Processing**
- 4.8 Unit Test Conditions**
 - 4.8.1 Unit Test Plan**
- 4.9 Integration Considerations**
 - 4.9.1 Prerequisites**
 - 4.9.2 Submission/Launching**
 - 4.9.3 Post-Requisites**
- 4.10 Performance Considerations**
 - 4.10.1 Volume Consideration**
- 4.11 Installation Requirements**
- 4.12 Reconciliation Procedure**
- 3. Issue Log**
 - 5.3 Open Issues**
 - 5.4 Closed Issues**

Assumptions:

- 5. Documented interface requirements are accurate.**
- 6. If applicable, temporary interfaces are included.**

Other Comments:

Exhibit 2A-9
Deliverable Expectation Document (DED)

AD.930 Technical Design Specification – EBS Interface_Conversion.doc

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
27	Technical Specifications for Data Conversion	Construction
Description/Objective:		
<p>This objective of the Technical Specifications for Data Conversion deliverable is to describe the technical specification of all data conversion requirements for each application. It helps to gain a clear understanding of the functionality and technical design that is required to be delivered.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their build activity. Additionally, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Document Control <ul style="list-style-type: none"> 1.4 Change Record 1.5 Approvers 1.6 Reviewer 2. Object Information 3. Technical Specifications <ul style="list-style-type: none"> 4.2 Technical Overview <ul style="list-style-type: none"> 4.2.1 Overview 4.2.2 Description 4.2.3 Assumptions 4.2.4 Roles and Responsibilities 4.2.5 Document References 4.3 Technical Specification <ul style="list-style-type: none"> 4.3.1 Program Flow 4.3.2 Component Technical Specifications 4.3.3 Program Elements 4.3.4 Pseudo-Code 4.3.5 Remote System Details 4.3.6 Error Handling 4.4 Data Mapping 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 4.4.1 Data File Names
- 4.4.2 Source to Target Mapping – Data Record
- 4.4.3 Source to Target Mapping – Control Record
- 4.4.4 Data Extract File Layout
- 4.5 Application Set up
 - 4.5.1 New/Updated Seed Data
 - 4.5.2 Value Sets
 - 4.5.3 Concurrent Program Executable
 - 4.5.4 Concurrent Program Definition
 - 4.5.5 Concurrent Request Set
 - 4.5.6 Profile Options
 - 4.5.7 Messages
 - 4.5.8 Scheduling Details
- 4.6 Database Design
 - 4.6.1 New Database Objects
 - 4.6.2 Modified Database Objects
 - 4.6.3 Database Physical Layout/Entity Relationship Diagram for New Tables
- 4.7 Exception Handling
 - 4.7.1 Error & Message Processing
- 4.8 Unit Test Conditions
 - 4.8.1 Unit Test Plan
- 4.9 Integration Considerations
 - 4.9.1 Prerequisites
 - 4.9.2 Submission/Launching
 - 4.9.3 Post-Requisites
- 4.10 Performance Considerations
 - 4.10.1 Volume Consideration
- 4.11 Installation Requirements
- 4.12 Reconciliation Procedure
- 4. Issue Log
 - 5.3 Open Issues
 - 5.4 Closed Issues

Assumptions:

- a. Documented conversion requirements are accurate.

Other Comments:

AD.930 Technical Design Specification – EBS interface_Conversion.doc

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
28	Technical Specifications for Workflow and Enhancements	Construction
Description/Objective:		
<p>The objective of the Technical Specifications for Workflow and Enhancements is to define and document technical workflow specifications for each of the applicable business processes based on the To-Be documentation.</p>		
Scope:		
<p>This document will be used as input for the remote delivery team for the technical delivery work and by the IBM Development Team for their build activity. In addition, this deliverable will be used to get concurrence from the County/FPD so that the design meets the functionality and is in line with the overall objective/standards.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.4 Change Record 1.5 Approvers 1.6 Reviewer 2. Object Information 3. Technical Specifications <ol style="list-style-type: none"> 4.1 Technical Overview <ol style="list-style-type: none"> 4.1.1 Overview 4.1.2 Description 4.1.3 Assumptions 4.1.4 Roles and Responsibilities 4.1.5 Document References 4.2 Technical Specification <ol style="list-style-type: none"> 4.2.1 Program Flow 4.2.2 Component Technical Specifications 4.2.3 Program Elements 4.2.4 Pseudo-Code 4.2.5 Remote System Details 4.2.6 Error Handling 4.3 Data Mapping <ol style="list-style-type: none"> 4.3.1 Data File Names 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 4.3.2 Source to Target Mapping – Data Record
- 4.3.3 Source to Target Mapping – Control Record
- 4.3.4 Data Extract File Layout
- 4.4 Application Set up
 - 4.4.1 New/Updated Seed Data
 - 4.4.2 Value Sets
 - 4.4.3 Concurrent Program Executable
 - 4.4.4 Concurrent Program Definition
 - 4.4.5 Concurrent Request Set
 - 4.4.6 Profile Options
 - 4.4.7 Messages
 - 4.4.8 Scheduling Details
- 4.5 Database Design
 - 4.5.1 New Database Objects
 - 4.5.2 Modified Database Objects
 - 4.5.3 Database Physical Layout/Entity Relationship Diagram for New Tables
- 4.6 Exception Handling
 - 4.6.1 Error and Message Processing
- 4.7 Unit Test Conditions
 - 4.7.1 Unit Test Plan
- 4.8 Integration Considerations
 - 4.8.1 Prerequisites
 - 4.8.2 Submission/Launching
 - 4.8.3 Post-Requisites
- 4.9 Performance Considerations
 - 4.9.1 Volume Consideration
- 4.10 Installation Requirements
- 4.11 Reconciliation Procedure
- 4. Issue Log
 - 5.3 Open Issues
 - 5.4 Closed Issues

Assumptions:

- a. Documented workflow requirements are accurate.

Other Comments:

AD.930 Technical Design Specification – EBS Interface_Conversion.doc

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
M5	Quality Gate Check Design Phase (Technical)	Construction
Description/Objective:		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 6. Project Status <ul style="list-style-type: none"> 1.3 Milestones and Deliverables Achieved or Missed 1.4 Highlights 7. Quality Status 8. Issues 9. Risks 10. Deficiency reports 		
Assumptions:		
<ul style="list-style-type: none"> 3. Milestones for each phase are identified in the Project Plan. 4. Issues, risks, and resolution strategies documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
29	Application/Workflow Configuration and Documentation	Construction
Description/Objective:		
<p>The objective of the Application/Workflow Configuration and Documentation deliverable is to describe the detail on each of the business process and related workflow functionality that is configured within the proposed software packages. It also includes the description on the data structure setups of the application and its workflow configuration.</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining on the business process and data structure setups and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 3. Application Setup Control Sheet 4. Business Data Structure 5. Open and Closed Issues <ol style="list-style-type: none"> 5.1 Open Issues 5.2 Closed Issues 		
Assumptions:		
<ol style="list-style-type: none"> 1. The information on the business process and data structure setups provided by County/FPD is assumed to be current and accurate. 2. Implementation of the business processes and data structure setups will be a collaborative effort between the IBM and County/FPD Teams. 		
Other Comments:		

Exhibit 2A-9

Deliverable Expectation Document (DED)

DS.010_BUSINESS_DATA_STRUCTURE_SETUPS

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase
30	Queries and Reports Development and Documentation	Construction
Description/Objective:		
<p>The objective for the Queries and Reports Development and Documentation deliverable is to design the technical development of queries and stock reports, implementation, unit testing, and all relevant documentation.</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining technical development of queries and stock reports, which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, unit testing, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 3. Technical Overview <ol style="list-style-type: none"> 3.1 Overview 3.2 Description 3.3 Design Dependency 3.4 Assumptions 3.5 Roles & Responsibilities 3.6 Document References 4. Data Flow 5. Objects Design <ol style="list-style-type: none"> 5.1 Fields 5.2 Records 5.3 Pages 5.4 Components 5.5 Menus 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 5.6 SQL Object
- 5.7 PeopleSoft Query
- 5.8 Tree Manager
- 5.9 Application Messaging
- 5.10 HTML
- 5.11 Style Sheet
- 5.12 Image
- 5.13 Business Interlinks
- 5.14 Component Interfaces
- 5.15 Application Engine Program
- 5.16 Application Package
- 5.17 Business Process Definition
- 5.18 Activity Definition
 - 5.18.1 Step Definition
 - 5.18.2 Event Definition
 - 5.18.3 Worklist Definition
 - 5.18.4 Email Definition
- 5.19 Message Definition
- 5.20 Approval Rule Definition
 - 5.20.1 Approval Rule Properties
 - 5.20.2 Rule Step Definition
- 5.21 File (Inbound/Outbound)
- 5.22 File Formats
- 5.23 File Layout
- 5.24 Header Control Record (Record Type 01)
- 5.25 Detail Data Record (Record Type 02)
- 5.26 Trailer Control Record (Record Type 03)
- 5.27 Security
- 5.28 Permission Lists
- 5.29 Roles
- 5.30 Process Definitions
- 5.31 Portal Registry Structures
- 5.32 Message Catalog
- 5.33 File Reference
- 5.34 URL
- 5.35 Job Definitions
- 5.36 Recurrence
- 5.37 Schedule Jobset
 - 5.37.1 SQR
 - 5.37.2 XMLP

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

5.37.3 Integration Broker

5.38 Summary As-Is Objects (Application for Upgrade Project)

- 6. Exception Handling**
 - 6.1 Error and Message Processing**
- 7. Integration Considerations**
 - 7.1 Prerequisites**
 - 7.2 Submission/Launching**
 - 7.3 Post-Requisites**
- 8. Performance Considerations**
 - 8.1 Volume Considerations**
- 9. Installation Requirements**
- 10. Reconciliation Procedure**
- 11. Impact Analysis**
- 12. Testing Information**
 - 12.1 Test Plan Overview**
 - 12.2 Prerequisites/Setups**
 - 12.3 Document References**
- 13. Unit Test Plan**
- 14. Supporting Documentation**
- 15. Issue Log**
 - 15.1 Open Issues**
 - 15.2 Closed Issues**

Assumptions:

- 1. The information on the technical specifications on Queries and Reports Development and Documentation provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of the various technical specs will be a collaborative effort between the IBM and County/FPD Teams.**

Other Comments:

AD.930 - Technical Specs – PeopleSoft
AD.950 - UTP-ORCL-H2R-EXT_066
AD.950 - Unit Test Plan and Scripts

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
31	Interfaces and Integration Development and Documentation	Construction
Description/Objective:		
<p>The objective of the Interfaces and Integration Development and Documentation deliverable is to design technical development of interface programs, code review documentation, interfaces and systems integration implementation, unit testing, and all relevant documentation.</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining Interfaces and Integration Development and Documentation, which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, unit testing, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewers 1. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 2. Technical Overview <ol style="list-style-type: none"> 3.1 Overview 3.2 Description 3.3 Design Dependency 3.4 Assumptions 3.5 Roles & Responsibilities 3.6 Document References 3. Data Flow 4. Objects Design <ol style="list-style-type: none"> 5.1 Fields 5.2 Records 5.3 Pages 5.4 Components 5.5 Menus 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 5.6 SQL Object
- 5.7 PeopleSoft Query
- 5.8 Tree Manager
- 5.9 Application Messaging
- 5.10 HTML
- 5.11 Style Sheet
- 5.12 Image
- 5.13 Business Interlinks
- 5.14 Component Interfaces
- 5.15 Application Engine Program
- 5.16 Application Package
- 5.17 Business Process Definition
- 5.18 Activity Definition
 - 5.18.1 Step Definition
 - 5.18.2 Event Definition
 - 5.18.3 Worklist Definition
 - 5.18.4 Email Definition
- 5.19 Message Definition
- 5.20 Approval Rule Definition
 - 5.20.1 Approval Rule Properties
 - 5.20.2 Rule Step Definition
- 5.21 File (Inbound/Outbound)
- 5.22 File Formats
- 5.23 File Layout
- 5.24 Header Control Record (Record Type 01)
- 5.25 Detail Data Record (Record Type 02)
- 5.26 Trailer Control Record (Record Type 03)
- 5.27 Security
- 5.28 Permission Lists
- 5.29 Roles
- 5.30 Process Definitions
- 5.31 Portal Registry Structures
- 5.32 Message Catalog
- 5.33 File Reference
- 5.34 URL
- 5.35 Job Definitions
- 5.36 Recurrence
- 5.37 Schedule Jobset
 - 5.37.1 SQR
 - 5.37.2 XMLP

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 5.37.3 Integration Broker
 - 5.38 Summary As-Is Objects (Application for Upgrade Project)
 - 5. Exception Handling
 - 6.1 Error & Message Processing
 - 6. Integration Considerations
 - 7.1 Pre-requisites
 - 7.2 Submission/Launching
 - 7.3 Post-Requisites
 - 7. Performance Considerations
 - 8.1 Volume Considerations
 - 8. Installation Requirements
 - 9. Reconciliation Procedure
 - 10. Impact Analysis
 - 11. Testing Information
 - 12.1 Test Plan Overview
 - 12.2 Prerequisites/Setups
 - 12.3 Document References
 - 12. Unit Test Plan
 - 13. Supporting Documentation
 - 14. Issue Log
 - 15.1 Open Issues
 - 15.2 Closed Issues

Assumptions:

1. The information on the Interfaces and Integration Development and Documentation provided by County/FPD is assumed to be current and accurate.
2. Implementation of the various technical specs based on Interfaces and Integration Development will be a collaborative effort between the IBM and County/FPD Teams.

Other Comments:

AD.930 - Technical Specs – PeopleSoft, AD.950 - UTP-ORCL-H2R-EXT_066, and AD.950 - Unit Test Plan and Scripts, AD.931 - Technical Specs Review Checklist-PeopleSoft.xls, AD.941 - Code Review Checklist_Oracle_PS_v1.1.xls

PeopleSoft Technical Specification Review Checklist:

Is technical specification document approved?
Is the technical specification in sync with the requirement?
Does the pseudo code explain the design principle?
Is the design excessively complex?
Are all the modules (for example, Pages and Components) clearly defined and integrated?
Is the design suggested to be broken down/condensed into further components?
Are there any unneeded modules?
Can any part of the design be replaced by common routines?
Does this design require special skills?

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

Is the dependency section filled up appropriately for technical design dependent on any other custom object?
Was the error handling and recovery strategy presented?
Has the design been elaborated in baseline diagrams to a sufficient level of detail?
Were development tools (For Reports: SQR, XL Publisher, Nvision, Crystal Reports) identified and discussed to a sufficient level of detail?
Were all interface descriptions presented (both internal and external)?
Is frequency of running any report/process/interface clearly specified?
Is mode of run mentioned?
Is location of run mentioned?
Is dependency, if any, clearly specified?
Are security access details like permission list and roles described?
Has sample report layout been attached to the design document?
Is expected volume of data to be processed mentioned?
Are format /type of file to be generated mentioned?
Are assumptions to be followed mentioned?
Are input parameters to be considered mentioned?
Is menu navigation path of the new component mentioned?
Is description of Issue clearly stated and understandable?
Are type/nature of program: Interface (inbound/outbound) or report or online customization mentioned?
Are details (name, contact, date) of the author of technical specification mentioned?
When appropriate, have data structures been described?

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
32	Data Conversion Implementation and Reconciliation Proof Documentation	Construction
Description/Objective:		
<p>The objective of the Data Conversion Implementation and Reconciliation Proof Documentation deliverable is to design technical development of data conversion and reconciliation programs, code review documentation, conversion implementation, unit testing and all relevant documentation.</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining Data Conversion Implementation and Reconciliation Proof Documentation, which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, unit testing, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 3. Technical Overview <ol style="list-style-type: none"> 3.1 Overview 3.2 Description 3.3 Design Dependency 3.4 Assumptions 3.5 Roles & Responsibilities 3.6 Document References 4. Data Flow 5. Objects Design <ol style="list-style-type: none"> 5.1 Fields 5.2 Records 5.3 Pages 5.4 Components 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 5.5 Menus
- 5.6 SQL Object
- 5.7 PeopleSoft Query
- 5.8 Tree Manager
- 5.9 Application Messaging
- 5.10 HTML
- 5.11 Style Sheet
- 5.12 Image
- 5.13 Business Interlinks
- 5.14 Component Interfaces
- 5.15 Application Engine Program
- 5.16 Application Package
- 5.17 Business Process Definition
- 5.18 Activity Definition
 - 5.18.1 Step Definition
 - 5.18.2 Event Definition
 - 5.18.3 Worklist Definition
 - 5.18.4 Email Definition
- 5.19 Message Definition
- 5.20 Approval Rule Definition
 - 5.20.1 Approval Rule Properties
 - 5.20.2 Rule Step Definition
- 5.21 File (Inbound/Outbound)
- 5.22 File Formats
- 5.23 File Layout
- 5.24 Header Control Record (Record Type 01)
- 5.25 Detail Data Record (Record Type 02)
- 5.26 Trailer Control Record (Record Type 03)
- 5.27 Security
- 5.28 Permission Lists
- 5.29 Roles
- 5.30 Process Definitions
- 5.31 Portal Registry Structures
- 5.32 Message Catalog
- 5.33 File Reference
- 5.34 URL
- 5.35 Job Definitions
- 5.36 Recurrence
- 5.37 Schedule Jobset
 - 5.37.1 SQR

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 5.37.2 XMLP
- 5.37.3 Integration Broker
- 5.38 Summary As-Is Objects (Application for Upgrade Project)
- 6. Exception Handling
 - 6.1 Error and Message Processing
- 7. Integration Considerations
 - 7.1 Pre-Requisites
 - 7.2 Submission/Launching
 - 7.3 Post-Requisites
- 8. Performance Considerations
 - 8.1 Volume Considerations
- 9. Installation Requirements
- 10. Reconciliation Procedure
- 11. Impact Analysis
- 12. Testing Information
 - 12.1 Test Plan Overview
 - 12.2 Prerequisites/Setups
 - 12.3 Document References
- 13. Unit Test Plan
- 14. Supporting Documentation
- 15. Issue Log
 - 15.1 Open Issues
 - 15.2 Closed Issues

Assumptions:

1. The information on the technical specifications on Data Conversion Implementation and Reconciliation Proof Documentation provided by County/FPD is assumed to be current and accurate.
2. Implementation of the various technical specifications based on Data Conversion Implementation will be a collaborative effort between the IBM and County/FPD Teams.

Other Comments:

AD.930 - Technical Specs – PeopleSoft, AD.950 - UTP-ORCL-H2R-EXT_066, and AD.950 - Unit Test Plan and Scripts, AD.931 - Technical Specs Review Checklist-PeopleSoft.xls, AD.941 - Code Review Checklist_Oracle_PS_v1.1.xls, CV.065_CONVERTED_AND_VERIFIED_DATA

PeopleSoft Technical Specification Review Checklist:

Is technical specification document approved?
Is the technical specification in sync with the requirement?
Does the pseudo code explain the design principle?
Is the design excessively complex?
Are all the modules (for example, Pages, Components) clearly defined and integrated?
Is the design suggested to be broken down/condensed into further components?
Are there any unneeded modules?

Exhibit 2A-9
Deliverable Expectation Document (DED)

Can any part of the design be replaced by common routines?
Does this design require special skills?
Is the dependency section filled up appropriately for technical design dependent on any other custom object?
Was the error handling and recovery strategy presented?
Has the design been elaborated in baseline diagrams to a sufficient level of detail?
Were development tools (For Reports: SQR, XL Publisher, Nvision, Crystal Reports) identified and discussed to a sufficient level of detail?
Were all interface descriptions presented (both internal and external)?
Is frequency of running any report/process/interface is clearly specified?
Is mode of run mentioned?
Is location of run mentioned?
Is dependency, if any, clearly specified?
Are security access details like permission list and roles described?
Has sample report layout been attached to the design document?
Is expected volume of data to be processed mentioned?
Format / type of file to be generated?
Are assumptions to be followed mentioned?
Are input parameters to be considered mentioned?
Is menu navigation path of the new component mentioned?
Is description of issue clearly stated and understandable?
Are type /nature of program: Interface (inbound /outbound) or report or online customization mentioned?
Are details (name, contact, date) of the author of technical specification mentioned?
When appropriate, have data structures been described?

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
34	System and Integration Testing (SIT) Results Documentation	Construction
Description/Objective:		
<p>The objective of the System Integration Testing (SIT) Results Documentation is to document the results of unit testing of all individual system components and the systems integration (functional and technical) testing by the IBM project team so that test scripts cover all necessary functionality and that the test plan is adequate to conduct testing.</p>		
Scope:		
<p>This deliverable will serve as validation of system readiness to initiate further system testing and user acceptance testing (UAT).</p>		
Format:		
<p>Microsoft Word, Microsoft Excel</p>		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Approvers 1.3 Reviewer 2. Object Information 3. Testing Information <ol style="list-style-type: none"> 3.1 Test Plan Overview 3.2 Prerequisites/Setups 3.3 Document References 4. Unit Test Plan 5. Supporting Documentation 6. Issue Log 7. Unit Test Plan Review Checklist (Microsoft Excel) 		
Assumptions:		
<ol style="list-style-type: none"> 1. Unit testing timeline follows the Project Plan. 2. All necessary team members are available to resolve defects/issues within the timeline and prior to initiating further testing. 3. Test scripts are followed and results are documented accurately. 		
Other Comments:		

Exhibit 2A-9
Deliverable Expectation Document (DED)

Unit Test Plan Review Checklist (Excel) included

AD.950 - Unit Test Plan and Scripts.doc

AD.951 - Unit Test Plan Review Checklist - Oracle.xls

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name	Phase:
14.2	Updated Business Requirement and Traceability Matrix	Construction

Description/Objective:
The objective of the Updated Business Requirement and Traceability Matrix is to validate and update the Business Requirements and Traceability Matrix based on additional BPI recommendations and RIDS analysis. The IBM Functional and Technical Teams will create an updated business requirements and traceability matrix that will document all system functionality, reports, interface, data conversion, and security requirements.

Scope:
This matrix provides a traceability of requirements through the project life cycle. It will be used by the technical team as a baseline requirements document for design work initiation. The functional team will use it at the end of the construction phase to validate the fulfillment of business requirements with specific functionality from the proposed solution, and in the test phase to create test cases.

Format:
Microsoft Excel

Outline:

Customer Business Requirements		Priority (High, Medium, Low)	Requirement Status	Affected Elements			Test Type		
System Requirements	Component Requirements			Design Documents	Build Components	Customer Acceptance Criteria	Test Method	Test Case	Test Result
Customer business requirement with multiple system requirements									
R1	System requirement with multiple component requirements								
R1	S1.1 Component requirement								
R1	S1.1 Component requirement								
R1	System requirement with multiple component requirements								
R1	S1.2 Component requirement								
R1	S1.2 Component requirement								
R1	S1.2 Component requirement								
Customer business requirement with multiple system requirements									
R2	System requirement with one component requirement								
R2	S2.1 Component requirement								
R2	System requirement with one component requirement								
R2	S2.2 Component requirement								
Customer business requirement with one system requirement									
R3	System requirement with no component requirements								
Customer business requirement with one system requirement									
R4	System requirement with no component requirements								

Assumptions:

- IBM and County/FPD Teams will collaborate in As-Is and To-Be Workshops to identify system requirements.**
- Fit-gap analysis and customization approvals will determine implementation status of requirements.**

Other Comments:
RD.9.15 – ReqmtsTraceabilityandVerificationMatrixUS.xls

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name	Phase:
35	User Acceptance Test (UAT) and Performance Test Plan	Construction
Description/Objective:		
The objective of the UAT and Performance Test Plan is to verify that the system works as a whole and in a way that is consistent with what the users expect. This Testing Plan determines the project's approach to testing and identifies test audience, entry/exit criteria between tests, and issue/resolution management. Test scenarios are also included, which represent business processes and workflow functionality, custom development objects, reports, interfaces, data conversion, and security.		
Scope:		
This deliverable will be used by system testers and the conversion and interface technical teams during the Construction phase. It will also be reviewed by County/FPD leadership to understand the approach and acceptance criteria of this system testing.		
Format:		
Microsoft Word		
Outline		
<ul style="list-style-type: none">1. Document Control<ul style="list-style-type: none">1.1 Change Record1.2 Reviewers2. Introduction<ul style="list-style-type: none">2.1 Purpose2.2 Summary2.3 Reference to Other Documents3. System Test Scope<ul style="list-style-type: none">3.1 Introduction3.2 Test Types3.3 Test Items3.4 Features to be Tested3.5 Features Not to be Tested4. Approach5. System Test Scenarios<ul style="list-style-type: none">5.1 How to Review5.2 Test Scenarios5.3 Defect Report		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 6. Item Pass/Fail Criteria**
- 7. System Test Work Products and Results**
- 8. System Test Schedule**
 - 8.1 Test Estimates**
- 9. Resources**
 - 9.1 Environment Requirements**
 - 9.2 Responsibilities**
 - 9.3 Staffing and Training Needs**
- 10. Risk Management**
 - 10.1 Suspension Criteria and Resumption Requirements**
 - 10.2 Risk and Contingencies**
- 11. Approvals**

Assumptions:

- 1. The testing environment(s) will be functioning and available during all scheduled test activities.**
- 2. Adequate technical support will be provided to allow the team to meet the approved project schedule.**
- 3. Test scripts and supporting documentation are accurately followed.**

Other Comments:

TE.050_SYSTEM_TEST_PLAN.DOC
TE.025_SYSTEM_TEST_SCENARIOS.DOC

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
36.1	Training Materials	Construction
Description/Objective:		
<p>The objective of the Training Materials Deliverable is to describe the process for developing baseline end-user training materials in accordance with requirements gathered and the training assessment findings from the Design phase. Training materials development includes the development of an end-user training pilot and prototype resources, as well as a method to conduct testing. Materials will be developed based on job roles and responsibilities.</p>		
Scope:		
<p>This document applies to the Training Development phase of the project and should be familiar to all training and project management personnel (both the IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Introduction <ul style="list-style-type: none"> 1.1 Purpose 1.2 Background 1.3 Related Documents 2. Develop Learning Strategy <ul style="list-style-type: none"> 2.1 Identify and Assess Target Audiences 2.2 Define Learning Objectives 2.3 Determine Training/e-learning Approach 2.4 Assess Existing or Related Course Content 2.5 Identify Potential Training Facilities 2.6 Assess Existing Technology and Training Tools 2.7 Develop Learning and Knowledge Transfer Strategy 3. Design Learning Program and Develop Prototype <ul style="list-style-type: none"> 3.1 Create Course Outlines and Curriculum Design 3.2 Design Recommended Learning Approach 3.3 Determine Instructional Methods/Media 3.4 Document Role-based /Process-driven Design 3.5 Develop Performance Evaluation Mechanisms 3.6 Draft Prototype Materials 4. Develop Learning Program <ul style="list-style-type: none"> 4.1 Draft Instructional Plan and Delivery System 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">4.2 Document Business Processes4.3 Develop and Finalize Instructional Materials4.4 Load Data in Training Environment (if applicable)4.5 Develop Train-the-Trainer Program (if applicable)5. Pilot and Deliver Learning Program<ul style="list-style-type: none">5.1 Select and Train Instructors5.2 Conduct Pilot Training5.3 Schedule Students5.4 Produce Materials5.5 Conduct Training Delivery6. Evaluate Learning Program<ul style="list-style-type: none">6.1 Participant Evaluation Instrument6.2 Provide support Post Go-live6.3 Conduct Evaluation6.4 Analyze Data and Take Corrective Action6.5 Maintain Training Materials and Conduct Additional Training (if authorized)
Assumptions:
<ul style="list-style-type: none">1. All of the business needs defined for this project should be addressed.2. All of the project objectives defined will address the business needs.3. Staffing and skill sets will be sufficient to finish the project on time and on budget.
Other Comments:
No method deliverable
[Sample/template to be provided]

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name	Phase:
M6	Quality Gate Check – Development Phase	Construction
Description/Objective:		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 1. Project Status <ul style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions:		
<ul style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies are documented in a separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

Test Phase

DED Number:	Deliverable Name:	Phase:
37	User Acceptance Testing (UAT) Orientation/Training Report	Transition
Description/Objective:		
<p>The objective of the User Acceptance Testing (UAT) Orientation/Training is to document the completion of providing training material that orients the UAT population to the system's functionality, how to use UAT testing scripts, and report on any errors that they experience and notice during testing.</p>		
Scope:		
<p>IBM's functional and training leads will deliver this training to County/FPD's UAT population to prepare for system transition.</p>		
Format:		
<p>Microsoft PowerPoint</p>		
Outline:		
<ol style="list-style-type: none"> 1. Overview 2. Training Guidelines 3. Course Objectives 4. UAT Training Agenda 5. What is UAT? 6. UAT Strategy 7. Testing Process 8. Script Example 9. Defect Process <ol style="list-style-type: none"> 9.1 Documenting Defects 9.2 Defect Form 9.3 Priority Levels 10. Questions 		
Assumptions:		
<ol style="list-style-type: none"> 1. UAT testing will be conducted soon after UAT training. 2. All UAT testers receive training. 		
Other Comments:		
<p>UAT Training.pptx</p>		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
38	UAT Testing Report	Transition
Description/Objective:		
<p>The objective of the UAT Testing Report deliverable is to document the results of the UAT testing and provide a formal signoff procedure. The IBM Team will administer and support users in UAT and functional testing. In each of the test cycles, the IBM functional leads will organize and document user reported test issues. Each issue will be resolved by the IBM Team and retested by the user who reported the issue. Upon resolution of all functional and technical issues within a test cycle, County/FPD will sign off for the next testing cycle to begin.</p> <p>This document includes results for each user acceptance testing and functional testing cycle. Results are logged for each step of the test scenarios. Defects are logged for each step where there was a discrepancy between the actual and expected step results. Summary results use test results to produce summaries by test type. Formal acceptance and sign-off of functional testing shall occur when all issues are resolved and all test cycles are completed, including verification of queries/reports, interfaces, data conversion, and security.</p>		
Scope:		
<p>This deliverable will be used by the functional and technical team to understand and track issues and defects. It will also serve as confirmation to County/FPD leadership that all testing cycles are completed, and all issues are resolved for final document sign-off.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction 3. Acceptance Test Detail 4. <Application Name> Defect Form 5. Acceptance Test Summary by Test Type 6. Acceptance Test Summary 7. Sign-Off 		
Assumptions:		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 1. Users will correctly follow test scripts.**
- 2. Users will accurately describe discrepancies between test results and the test script to functional team.**
- 3. Issue resolution and re-test deadlines will be agreed upon by both IBM and the County/FPD.**
- 4. Necessary team members will be available to resolve issues/defects on schedule.**

Other Comments:

TE.120 Acceptance Test Results

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
39	Performance Testing Report	Transition
Description/Objective:		
<p>The objective for the Performance Testing Report deliverable is to conduct performance testing, document results, and recommend performance tuning requirements based on the performance testing plan and scripts, for example, a report or query or transaction should not take too long to execute. Upon review and approval, the Proposer will work closely with ERP/BOT staff to implement performance tuning steps on the technology infrastructure (application and web servers, operating system, memory, databases, network configuration, etc.).</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining implementation of performance testing and acceptance sign-off, which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Project Scope, Objectives, and Approach <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 2.3 Objectives 3. Executive Summary <ol style="list-style-type: none"> 3.1 Summary of Test Results 3.2 Conclusions and Recommendations 4. Performance Test Strategy <ol style="list-style-type: none"> 4.1 Methodology 4.2 Automated Testing Tools 4.3 Test Execution 5. Test Models <ol style="list-style-type: none"> 5.1 Business Functions 5.2 Test Scenarios 6. Test Cycle 		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

- 6.1 Test Cycle Objective**
- 6.2 Test Cycle Parameters**
- 6.3 General Observations**
- 6.4 Specific Results and Measurements**
- 7. Test Database**
 - 7.1 Database Population Strategy**
 - 7.2 Data Volumes**
- 8. System Architecture and Configuration**
 - 8.1 Technical Architecture**
 - 8.2 Hardware, O/S and Network Configuration**
 - 8.3 Database Configuration**
- 9. Risks**
- 10. Test Results**
 - 10.1 Summary**
 - 10.2 Performance Measurements**
 - 10.3 Scenario 1 – US Baseline**
 - 10.4 Scenario 2 - <Scenario name>**
 - 10.5 Issues Identified and Resolution**
 - 10.6 Patches Applied**
- 11. Conclusions and Recommendations**
 - 11.1 Conclusions**
 - 11.2 Recommendations**
- 12. Open and Closed Issues**
 - 12.1 Open Issues**
 - 12.2 Closed Issues**

Assumptions:

- 1. The information on the Performance Testing Report provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of the test scenarios, test plans, test cycles, and test results will be a collaborative effort between the IBM and County/FPD teams.**

Other Comments:

PT.100_PERFORMANCE_TEST_RESULTS and PT.110_PERFORMANCE_TEST_REPORT.doc

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
40	IT Operations Procedures and Training Report	Transition
Description/Objective:		
<p>The objective of the IT Operations Procedures and Training Report deliverable is to define, develop, and document service management and operations procedures related to administration (for example, servers, databases, operating system, change control process, backup, data recovery, etc.) of the technology infrastructure supporting the software solution. The Proposer's technical team shall conduct formal training of applicable ERP/BOT staff and document its completion in this report.</p>		
Scope:		
<p>This document will be generated by the IBM technical team explaining System Operations and Management strategies, which will be open to modification as needed by the technical team. This document is intended for Business SMEs and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 3. Overview of the Network and Server Operations Center <ol style="list-style-type: none"> 3.1 Server Operations Center 3.2 Network Operations Center 4. Enterprise Management Standards and Policies <ol style="list-style-type: none"> 4.1 System Requirements 4.2 Systems, Applications, and Database Monitoring 4.3 Problem Management and Escalation 4.4 Change Management 4.5 Backups 4.6 Disaster Recovery 5. System Operational and Management Requirements <ol style="list-style-type: none"> 5.1 Operational Baseline 6. Planned Maintenance Schedule 7. Database Tier 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 7.1 Database Server
- 7.2 Baseline Monitoring and Metrics
- 7.3 Archive Log Management
- 7.4 Object Growth Management
- 7.5 Partition Maintenance
- 7.6 Purging and Archiving
- 7.7 Statistics Collection
- 7.8 Backup and Recovery
- 7.9 Tools
- 8. Application Tier
 - 8.1 Baseline Monitoring and Metrics
 - 8.2 Apache Monitoring
 - 8.3 Error Log Management
 - 8.4 Management of Servers in the DMZ
 - 8.5 Tools
- 9. Desktop Client Tier
 - 9.1 Baseline Monitoring and Metrics
 - 9.2 Tools
- 10. Security and Accounts management
 - 10.1 Procedures
 - 10.2 Tools
 - 10.3 Failure Scenarios and Responses
- 11. Hardware and Network Management
 - 11.1 Baseline Monitoring and Metrics
 - 11.2 Procedures
 - 11.3 Failure Scenarios and Responses
 - 11.4 Tools
- 12. Software Management
 - 12.1 Procedures
 - 12.2 Client Desktop Environment Standards
 - 12.3 Failure Scenarios and Responses
- 13. Performance Management
 - 13.1 Procedures
 - 13.2 Tools
 - 13.3 Failure Scenarios and Responses
- 14. Capacity Planning
 - 14.1 Procedures
 - 14.2 Inputs
 - 14.3 Tools
- 15. Tools Summary

Exhibit 2A-9
Deliverable Expectation Document (DED)

16. Open and Closed Issue

16.1 Open Issues

16.2 Closed Issues

Assumptions:

- 1. The information on the System Operations and Management strategies provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of the various system operations and management strategies will be a collaborative effort between the IBM and County/FPD teams.**

Other Comments:

TA.060_SYSTEM_OPERATIONS_AND_MANAGEMENT_STRATEGY
TA.100_SYSTEM_MANAGEMENT_GUIDE
TA.110_OPERATIONAL_TESTING_PLAN

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
36.2	Final Training Materials	Transition
Description/Objective:		
<p>The objective of the Final Training Materials deliverable is to provide a checklist of key training materials to be used in delivering the training recommended in the training plan. The document helps identify missing materials required to fulfil training objectives.</p>		
Scope:		
<p>This document applies to the delivery phase of the project, and should be familiar to all training and project management personnel (both IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
<p>Microsoft Word</p>		
Outline:		
<ol style="list-style-type: none">1. Introduction<ol style="list-style-type: none">1.1 Program1.2 Background1.3 Related Documents2. Learning Materials<ol style="list-style-type: none">2.1 List of Materials2.2 standards and Guidelines Used2.3 Technical/Software Tools and Materials2.4 Training Guides2.5 Learning Support Materials3. Learning Administration Materials<ol style="list-style-type: none">3.1 Schedule of Learning Events (Curriculum)3.2 Facilities and Resources3.3 Learning Event Tracking Mechanism3.4 Learning Event Communication Template3.5 Participation List3.6 Contact Information4. Trainer Materials<ol style="list-style-type: none">4.1 Trainer List4.2 Contact Information4.3 Training Materials5. Measurement Materials<ol style="list-style-type: none">5.1 Learning Measurement Instruments (if applicable)		

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">5.2 Participant Evaluation Instruments5.3 Training Evaluation Instruments6. Issues Management<ul style="list-style-type: none">6.1 Open Issues6.2 Closed Issues
Assumptions:
<ul style="list-style-type: none">1. The Training Assessment Findings and Recommendations is complete and all recommendations from the assessment have been implemented.2. All of the business needs defined for this project have been addressed.3. All of the project objectives defined will address the business needs.4. Staffing and skill sets will be sufficient to finish the project on time and on budget.
Other Comments:
TR.080_User_Learningware

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
M7	Quality Gate Check – Test Phase	Transition
Description/Objective:		
The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.		
Scope:		
This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.		
Format:		
Microsoft Word		
Outline:		
1. Project Status 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports		
Assumptions:		
1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies documented in separate log and consistently updated to use for report.		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number	Deliverable Name	Phase
41	Formal End User Training Completion Report	Transition
Description/Objective:		
<p>The objective of the Formal End User Training Completion deliverable is to describe the management of training delivery to all end users based on the approved course curriculum and in accordance with the training assessment findings from the design phase. This training delivery document covers training facilities, trainers, participants, curriculum scheduling, enrolments, communications, training evaluation, and post-training support.</p>		
Scope:		
<p>This document applies to the delivery phase of the project and should be familiar to all training and project management personnel (both IBM Team and County/FPD staff). Any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none">1. Introduction<ol style="list-style-type: none">1.1 Purpose1.2 Background1.3 Related Documents2. Resources and Facilities<ol style="list-style-type: none">2.1 Training Locations2.2 Facility Requirements2.3 Training Delivery Logistics (Equipment and Supplies)2.4 Maintenance and Follow-up Activities3. Training Scheduling<ol style="list-style-type: none">3.1 Curriculum Schedules3.2 Instructors Selection3.3 Instructor Preparation3.4 Identify Training Liaisons3.5 Travel Management3.6 Training Communications4. Participant Management<ol style="list-style-type: none">4.1 Participant Selection4.2 Enrolment Procedures4.3 Participant Preparation/Prerequisite tasks4.4 Participant Evaluation		

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">4.5 Participant Training Groups4.6 Travel Management4.7 Training Communications5. Training Implementation<ul style="list-style-type: none">5.1 Training Delivery Support5.2 Post-training Support and Management6. Training Evaluation<ul style="list-style-type: none">6.1 Socialize Kirkpatrick's Evaluation Model6.2 Evaluation Instruments6.3 Formal Feedback6.4 Analysis and Revision Process
Assumptions:
<ul style="list-style-type: none">1. All of the business needs defined for this project are addressed.2. All of the project objectives defined will address the business needs.3. Staffing and skill sets will be sufficient to finish the project on time and on budget.
Other Comments:
No method deliverable
[Sample/template to be provided]

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
42	Go-Live Help Desk and Field Support Operational and Logistics Plan	Transition
Description/Objective:		
<p>The purpose of the Go-Live Help Desk and Field Support Operational and Logistics Plan deliverable is to provide an operational plan to deploy the Go-Live help desk and to provide a field support plan during Go-Live.</p>		
Scope:		
<p>IBM will provide an operational plan to deploy the Go-Live help desk and a field support plan during Go-Live. The plans must identify in detail all operational elements, including needed resources, operational hours, training for help desk, and field support personnel.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Requirements 2.3 Related Documents 3. Scope <ol style="list-style-type: none"> 3.1 Heading 4. Support Objectives <ol style="list-style-type: none"> 4.1 Support Overview 5. Support Approach <ol style="list-style-type: none"> 5.1 Support Processes 5.2 Problem Resolution Time Frames 5.3 Scheduled Meetings 5.4 Ongoing Communications 6. Help Desk Support <ol style="list-style-type: none"> 6.1 Help Desk Objectives 6.2 Help Desk Expectations 6.3 Help Desk Team Structure and Roles 6.4 Organization Responsibilities and Roles 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

- 7. Site Support Organization**
 - 7.1 Site Organization Objectives**
 - 7.2 Site Support Expectations**
 - 7.3 Site Support Team Structure and Roles**
 - 7.4 Site Responsibilities and Roles**
- 8. Appendix**
 - 8.1 Job Descriptions**
- 9. Support Processes**
- 10. Open and Closed Issues**
 - 10.1 Open Issues**
 - 10.2 Closed Issues**

Assumptions:

- a. Sites will have appropriate space and equipment for field support to be operational.**

Other Comments:

TS.930_SUPPORT_STRATEGY.doc

Help Desk Support added

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
43	Cutover Plan and Go-Live Communications Package	Transition
Description/Objective:		
<p>The objective of the Cutover Plan is to identify and understand the activities, personnel, roles, technical changes, and timeline (inclusive of critical path) for cutting over from the legacy system to the new ERP. Further, the plan will also define both the legacy retirement process, as well as the plan for rolling back the system should circumstances indicate that necessity.</p> <p>The Go-live Communications Plan (embedded in the Project OCM/Communications Plan) will provide guidance on messaging prior to, during, and post cutover.</p>		
Scope:		
<p>This document applies to the Transition phase of the project and should be familiar to all project personnel identified in the plan. The Cutover Plan covers activities leading up to cutover, the actual cutover steps and post-cutover support. It will describe the tasks within general activities, but not the steps of completing those tasks.</p> <p>Go-Live Communications will focus only on messaging related to cutover and post-cutover, but will not include other general program communications.</p> <p>Once the plan is approved, any changes in scope, strategy, and/or procedure must go through the defined change request process and approvals.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Cutover Plan <ol style="list-style-type: none"> 1.1 Strategy Overview 1.2 Task List 1.3 Task Details 2. Go-Live Communications <ol style="list-style-type: none"> 2.1 Communications to Core Team 2.2 Communications to Help Desk 2.3 Communications to End Users 		
Assumptions:		
<ol style="list-style-type: none"> 1. County/FPD will identify all impacted stakeholders. 		
Other Comments:		

Exhibit 2A-9
Deliverable Expectation Document (DED)

TS.020_CUTOVER_STRATEGY.doc

Go-Live Communications added

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:		Deliverable Name:			Phase:		
44		Go-Live Readiness Checklist Assessment			Transition		
Description/Objective:							
The Go-Live Readiness Checklist Assessment deliverable assesses the readiness of the organization for production cutover.							
Scope:							
The functional and technical teams will use this checklist to document the Go-Live readiness prior to cutting over.							
Format:							
Microsoft Excel							
Outline:							
Go-Live Check List							
	Critical Area	Project	Assessment	Status	Verifier	Project Team Member	Comments
1	External Certifications						
		ERP	Assessment 1				
		ERP	Assessment 2				
2	Infrastructure						
		ERP	Assessment 3				
3	User Workstations						
		ERP	Assessment 4				
4	Printers						
		ERP	Assessment 5				
		ERP	Assessment 6				
5	Security						
		ERP	Assessment 7				
6	Cutover Plan						
		ERP	Assessment 8				
7	Quality Assurance						
		ERP	Assessment 9				
8	End User Training						

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

		ERP	Assessment10				
9	Support						
		ERP	Assessment11				
10	Communication/ Change Mgmt						
		ERP	Assessment12				

Legend	
	Component is production ready or on schedule to be production ready
Yellow	Component is production ready but requires minor refinement with an achievable plan in place or not a show-stopper for Go-Live
	Component is NOT production ready. Unable to Go-Live

Assumptions:

1. Red Critical Areas should be resolved by functional/technical teams prior to Go-Live cutover.

Other Comments:

golive_chklst_ex (SAP Example).xls

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
48.2 to 48.X	Standard Operating Procedures for Operations & Support Services (Annual Update)	Managed Services
Description/Objective:		
<p>The objective of the Standard Operating Procedures for Operations & Support Services (Annual Update) deliverable is to provide a production system support and maintenance plan.</p>		
Scope:		
<p>The Proposer shall provide a post production system support and maintenance plan, which shall clearly identify the production support roles and responsibilities, process for capturing issues, and prioritization and resolution of issues. The plan also includes a roadmap for applying patches/fixes to all components of the software solution.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Production Support Plan <ol style="list-style-type: none"> 2.1 Production Support Requirements 2.2 Support Personnel Learning Plan 2.3 Support Equipment and Materials 3. External Support Procedures <ol style="list-style-type: none"> 3.1 Access Procedure for External Support 4. Internal Support Procedures 5. User Support Levels 6. Problem Identification Guide <ol style="list-style-type: none"> 6.1 Category of Problems 7. Production Cutover Notification to External Support: 8. Open and Closed Issues <ol style="list-style-type: none"> 8.1 Open Issues 8.2 Closed Issues 		
Assumptions:		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

1. All external and internal support parties have received adequate training.

Other Comments:

TS.040_PRODUCTION_SUPPORT_INFRASTRUCTURE_DESIGN.doc

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
45	Transition Plan for Production Managed Services	Transition
Description/Objective:		
<p>The objective of the Transition Plan for Production Managed Services deliverable is to provide an Environment Definition, Governance Plan, and Ticket Management System.</p>		
Scope:		
<p>IBM shall provide the following:</p> <ul style="list-style-type: none"> • Environment Definition: Documentation of all technical environments, including operational and procedural standards, libraries, naming conventions and release procedures; • Governance Plan: Documentation of processes that shall govern the provision of managed services, such as management of assigned work, team procedures, escalation procedures, performance monitoring and reporting, request for services or reporting incidents, service level status and other governance aspects; • Ticket Management System: A systematic process and tool for receiving, distributing, tracking, reporting, and closing support tickets. 		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Environment Definition <ol style="list-style-type: none"> 1.1 Technical Environments 1.2 Operational & Procedural Standards 1.3 Naming Conventions 1.4 Release Procedures 2. Governance Plan <ol style="list-style-type: none"> 2.1 Team Member Roles and Responsibilities 2.2 Escalation Procedures 2.3 Performance Monitoring and Reporting 2.4 Reporting Incidents 2.5 Service Level Status 3. Ticket Management System 		
Assumptions:		
<ol style="list-style-type: none"> 1. Performance Monitoring and Reporting metrics are detailed more thoroughly in #53 Service Level Agreement (SLA) Definition, Measurement, Reporting, and Payment Structure - For Six-month Production Support and Managed Services. 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

2. IBM Team will use prior experience to recommend the most appropriate Ticket Management system for approval by County/FPD leadership.

Other Comments:

No method deliverable

[Sample/template to be provided]

Exhibit 2A-9**Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
46	Service Level Agreement (SLA) Definition, Measurement, Reporting, and Payment Structure - For Six-month Production Support and Managed Services	Production
Description/Objective:		
<p>The objective of the Service Level Agreement (SLA) Definition, Measurement, Reporting, and Payment Structure - For Six-month Production Support and Managed Services deliverable is to provide an SLA framework that will be used to measure the performance of IBM's managed services. It describes the metrics that will be reported and the Service Level Commitments (SLCs) for each metric. The document also defines the SLA measurement/computing methodology, measurement, and reporting cycles and it provides details on how penalties for Non-Compliance to SLAs are addressed.</p>		
Scope:		
<p>The Proposer shall propose an SLA framework that will be used to measure and govern the performance of Proposer's managed services. The Proposer shall clearly identify SLA measures around system availability, application response time, and incident response and resolution times. The Proposer shall clearly identify the SLA measurement/computing methodology, measurement, and reporting cycles. The Proposer shall also provide details on how penalties for Non-Compliance to SLAs are addressed.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none">1. Introduction<ul style="list-style-type: none">1.1. Scope1.2. Objectives1.3. Approach1.4. Definitions2. Service Level Agreements<ul style="list-style-type: none">2.1. SLA Summary<ul style="list-style-type: none">2.1.1. System Availability2.1.2. Application Response Time2.1.3. Incident Response Time2.1.4. Incident Resolution Time2.2. SLA Details<ul style="list-style-type: none">2.2.1. Definition2.2.2. Source of data2.2.3. Measurement period2.2.4. Service Level Commitment		

Exhibit 2A-9

Deliverable Expectation Document (DED)

<ul style="list-style-type: none">2.2.5. Formula2.2.6. Calculation example2.3. Reporting Metrics (metrics w/o SLA penalties)<ul style="list-style-type: none">2.3.1. Definition2.3.2. Source of data2.3.3. Measurement period2.3.4. Service Level targets (color bands)2.3.5. Formula2.3.6. Calculation example3. SLA Reporting<ul style="list-style-type: none">3.1. Frequency3.2. Format3.3. Tools (dashboard)4. SLA Penalties<ul style="list-style-type: none">4.1. Assessment4.2. Process4.3. Transition period5. Continuous Improvement
Assumptions: <ul style="list-style-type: none">1. Service Level Metrics and Service Level Commitments proposed by IBM will be reviewed and agreed by CCG prior to contract award.2. Calculation methods described in this document will determine how metrics are measured and reported and will govern the payment of penalties assessed for non-compliance.3. Automated support tools will be used to collect and report Service Level Metrics. System availability and application response time will be measured in OEM; incident response and resolution times will be measured in IBM's proposed ticketing system.4. Achievement of SLCs for each metric will be measured and reported monthly.
Other Comments:
No Method Deliverable
<p>Pmod 11_APPENDIX B_Attach 2_SLA_JULY 2011_IBM.pdf J.8.g_Service Level Agreement.pdf</p>


**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
M8	Quality Gate Check – Implementation Phase – Go-Live	Production
Description/Objective		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Project Status <ol style="list-style-type: none"> 1.1 Milestones and Deliverables Achieved or Missed 1.2 Highlights 2. Quality Status 3. Issues 4. Risks 5. Deficiency reports 		
Assumptions:		
<ol style="list-style-type: none"> 1. Milestones for each phase are identified in the Project Plan. 2. Issues, risks, and resolution strategies are documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number	Deliverable Name	Phase						
47	Implement Cutover (Go-Live) Report	Transition						
Description/Objective:								
<p>The objective of the Implement Cutover (Go-Live) report is to provide the project team with a list of production cutover activities that the team will implement and deploy along with the help desk and field support operational plans. This document provides a task level work plan for transitioning to the new system.</p>								
Scope:								
<p>This will be used by all project teams to track progression and upcoming activities from the Construction phase through Transition and cutover.</p>								
Format:								
Microsoft Excel								
Outline:								
	Comments	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Dec	Remaining Build	23	24	25	26	27	28	29
	Remaining Build	30	31	1	2	3	4	5
Jan	Pre-Cutover	6	7	8	9	10	11	12
	Pre-Cutover	13	14	15	16	17	18	19
	Cutover							

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

Week -2	Pre-Cutover	20	21	22	23	24	25	26
	Cutover							
Week -1	Cutover	27	28	29	30	31	1	2
								

Assumptions:

- 1. Accountable team members for each activity will be defined in the RACI-VS matrix and should be available to meet project deadlines.**

Other Comments:

TS.912 – PS91_Cutover_Plan_01242013.xls

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
M9	Final System Acceptance Report	Project Close
Description/Objective:		
<p>The objective of the Final System Acceptance Report document is to represent the completion of the Implementation work scope – and transition to Managed Services – for each program Release. This is the final deliverable produced by the implementation team and includes a formal “sign-off” to be acknowledged and returned by CCG. The document includes checklists detailing successful completion of the following scope elements:</p> <ol style="list-style-type: none"> 1. Submittal and acceptance of all identified Program Deliverables 2. Achievement of Program SLAs by the end of the six-month Production support period 3. Closure of all Severity 1 and 2 support tickets assigned to IBM. <p>The document will identify any remaining work scope to be completed by IBM, for example, remaining Severity 3 and lower support tickets.</p>		
Scope:		
Final System Acceptance will apply to each Release defined in this proposal.		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Overview 2. Summary of Release scope 3. Evidence of completion for Program Deliverables 4. SLA Performance for Production Support Period 5. Final Support Ticket Report 6. Remaining actions to be completed by IBM <p>Acceptance Letter template</p>		
Assumptions:		
6. The Government will review the document and provide a Signed Acceptance Letter within 10 days of receiving the document package.		
Other Comments:		
<p>No Method Deliverable.</p> <p>[need to develop template]</p>		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
M8	Quality Gate Check – Implementation Phase – Production	Production
Description/Objective:		
<p>The object of the Quality Gate Check deliverable is to provide a high-level status report for each phase indicating accomplishments, issues, risks and mitigation strategies, and progress against project success factors. A plan for addressing any deficiencies will accompany the report.</p>		
Scope:		
<p>This document is updated and submitted at the close of each phase. It will be used by the PM/PMO team to track progress of accomplishments, issues, and risks and to measure project success.</p>		
Format:		
Microsoft Word		
Outline:		
<ul style="list-style-type: none"> 2. Project Status <ul style="list-style-type: none"> 6.1 Milestones and Deliverables Achieved or Missed 6.2 Highlights 7. Quality Status 8. Issues 9. Risks 10. Deficiency reports 		
Assumptions:		
<ul style="list-style-type: none"> 3. Milestones for each phase are identified in the Project Plan. 4. Issues, risks, and resolution strategies are documented in separate log and consistently updated to use for report. 		
Other Comments:		
ENG 348 – ClientStatusReportUS.doc		

Exhibit 2A-9
Deliverable Expectation Document (DED)

DED Number:	Deliverable Name	Phase:
21.2	Security Controls - Implementation Phase	Transition
Description/Objective:		
<p>The objective of the Security Control deliverable is to document the security controls designed by the IBM team and to document how the security will allow access by authorized individuals and devices and to disallow access to all others. The authorized individuals may be employees, technology service provider (TSP) employees, vendors, contractors, customers, or visitors. Security Control access should be authorized and provided only to individuals whose identity is established, and their activities should be limited to the minimum required for business purposes.</p> <p>An effective security control mechanism encompasses numerous controls to safeguard and limits access to key information system assets at all layers in the network stack. This section addresses logical and administrative controls, including security access rights administration for individuals and network access issues. The Security and Compliance document that was prior phases will be updated with additional details that result from the current phase.</p>		
Scope:		
<p>This document will be designed by the IBM technical team implementing the security controls required to be included in the concept development phase and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 4.1 Purpose 4.2 Scope 4.3 References 3. Background <ol style="list-style-type: none"> 3.1 General Approach 3.2 Business Drivers 3.3 Security Requirements 4. Security and Control 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 4.1 Network Security**
- 4.2 Web Pages Security**
- 4.3 Application Level Security**
- 4.4 Database Security**
- 4.5 Data Security**
- 4.6 Operating System Security**
- 4.7 Remote and Mobile Access**
- 4.8 Identity Management**
- 4.9 Privacy and Permanence**
- 4.10 Data Integrity and Data Non-Repudiation**
- 4.11 Auditability and Accountability**
- 4.12 Physical Security**
- 5. Security Requirements Traceability Matrix**
- 6. Security Administration**
- 7. Open and Closed Issues**
 - 7.1 Open Issues**
 - 7.2 Closed Issues**

Assumptions:

- 1. Data and information provided by County/FPD is assumed to be current and accurate.**
- 2. Implementation of Roles and Permission Lists will be a collaborative effort between the IBM and County/FPD Teams.**

Other Comments:

TA.090_SECURITY_AND_CONTROL_STRATEGY

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
<p>48.1 48.2 to 48.X</p>	<p>Standard Operating Procedures for Operations & Support Services</p> <p>Standard Operating Procedures for Operations & Support Services (Annual Update)</p>	<p>Transition Managed Services</p>
Description/Objective:		
<p>The objective of the Standard Operating Procedures for Operations and Support Services deliverable is to develop a comprehensive set of standard operating procedures for designing and delivering the operations and support services.</p>		
Scope:		
<ul style="list-style-type: none"> • IBM will develop a comprehensive set of standard operating procedures for designing and delivering the operations and support services. • The process will address, at a minimum: <ul style="list-style-type: none"> ○ Catalog of services that are available to users ○ Service process design that describes how users shall be able to request and secure the listed services ○ The tools and utilities that are available for users to request and receive such services ○ IBM and CCG staff that are responsible for ensuring service delivery – points of contact ○ Escalation mechanisms and criteria ○ Traceability of end user requests – through the various stages from initiation through closure ○ Dashboards/reports available to end users • IBM will include additional details in the standard operating procedures, based on industry best practices and the Proposer’s own methodology and prior experience • This deliverable shall be produced prior to the first managed services contract, and shall be updated once every 12 months so that it stays current with the latest procedures in use 		
Format:		
<p>Microsoft Office (Word, Excel), IBM dashboard and portal</p>		
Outline:		
<ol style="list-style-type: none"> 1. Escalation Process 2. Available Services, Tools, and Utilities 3. Service Delivery 4. Updated Reports 		
Assumptions:		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 1. Users have access to available services, tools, and utilities.**
- 2. Identified Points of Contact are ready and available to support service delivery.**

Other Comments:

No method deliverable

[Sample/template to be provided]

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
49.1 to 49.X	Managed Services Status Report (Monthly) – Combines Managed Services Status reports, SLA Compliance Report and Performance Trend Analysis	Managed Services
Description/Objective:		
<p>The objective of the Managed Services Status Report (Monthly) deliverable is to produce a report on the status of the program, any new or open issues, and key accomplishments during the period.</p> <p>The purpose of this deliverable is to produce an SLA compliance report</p> <p>The objective of the Managed Services Performance Trend Analysis (Monthly) deliverable is to produce performance trend analysis report that provides a graphical representation of the IBM performance measures over the monthly time period.</p>		
Scope		
<ul style="list-style-type: none"> • IBM will produce a status report that shall comprehensively document the overall status of the County's managed services. • The status report will include: <ul style="list-style-type: none"> ○ Overall status of the program ○ Key accomplishments in the previous period, tasks for the upcoming period ○ Major issues in service delivery and resolution ○ Summary of costs and resources – planned, till date, and remaining ○ Summary of services delivered during the reporting period ○ Quality of services as demonstrated by the actual value of operational measures and metrics during the reporting period • IBM will include additional details in the status report, based on industry best practices, and IBM's own methodology and prior experience. • IBM will propose ways in which this information is available to stakeholders in real time, as much as possible, through the use of collaboration tools and dashboards. • IBM will produce an SLA compliance report. • The status report will include, at a minimum: <ul style="list-style-type: none"> ○ Reporting period ○ Service type ○ Service measure ○ Performance target ○ Minimum performance requirements ○ Performance in the previous two reporting periods • SLA report shall include an analysis of: <ul style="list-style-type: none"> ○ Causes ○ Corrective/preventative action for non-compliance to SLAs • The SLA report shall include a commentary on whether and how IBM's SLA performance impacts the monthly managed services fee. <p>IBM will propose ways in which this information is available to stakeholders in real-time through the use</p>		

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

of collaboration tools and dashboards.

- IBM will produce performance trend analysis report.
- The report will contain:
 - Appropriate visual/graphical representation of IBM's performance against all service measures and metrics over a period of time
 - Analysis of the trends and corrective/preventative action being taken by IBM so that our performance trends in a favorable direction

IBM will propose ways in which this information is available to stakeholders in real-time through the use of collaboration tools and dashboards.

This document will be updated and presented monthly within the Managed Services phase. It will be used by the PM/PMO (for both the IBM Team and County/FPD) to monitor project progress, application performance, and open items.

Format

Microsoft Word

Outline

1. Project Schedules
 - 1.1 New changes to schedule (if applicable)
 2. Project Status
 - 2.1 Deliverables Achieved or Missed
 - 2.2 Highlights
 3. Quality Status
 - 3.1 Summary of Costs and Resources
 - 3.2 Summary of Services Delivered
 - 3.3 Quality of Services
 4. Project Change Requests
 5. Issues
 6. Risks
 7. Dependencies
 8. Action Items
 9. Compliance Incidents
 10. Entry and Exit Criteria
 11. Planned Activities for Next Reporting Period
 12. Attachments
- Dashboard:
1. Service Level Metric
 2. Service Level Commitment
 3. Current Performance
 4. Monthly Performance, YTD

Exhibit 2A-9

Deliverable Expectation Document (DED)

Service Level Achievement Report:

- 5. **Service Level Metric**
- 6. **Service Level Commitment**
- 7. **Current Month's Performance**
- 8. **Compliance Indicator**

- 13. **Calculated assessment for non-compliance**

- 1. **Trend analysis reports**
- 14. **Corrective/Preventative Action Plan**

Assumptions:

- 1. **Cost and resources analyses include forecasting and will remain within project budget.**
- 2. **Service measures will be defined and agreed upon prior to contract award, and further described in Service Level Agreement (SLA) Definition, Measurement, Reporting, and Payment Structure - For Six-month Production Support and Managed Services**
- 1. **Performance metrics including monthly actuals compared to Service Level Commitments will be reported as part of the performance dashboard.**
- 3. **Service Level Achievement and calculation of assessed penalties will be included in a monthly report provided with the invoice**

Other Comments:

ENG 348 – ClientStatusReportUS.doc

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
N/A	System Documentation (initial and updates)	Managed Services
Description/Objective:		
<p>The objective of the System Documentation (initial and updates) deliverable is to develop, maintain, and provide technical, functional, operational documentation and system configuration documentation</p>		
Scope:		
<p>IBM shall develop, maintain, and provide technical, functional, operational documentation and system configuration documentation.</p> <p>IBM shall keep documentation current throughout the project. The documentation shall include the following:</p> <ul style="list-style-type: none"> • Security administration guide • User documentation related to functions and business processes • Design documentation related to architecture, database, configuration, and customization • Workflow administration guide • Configuration parameters • Technical environment configuration 		
Format:		
Microsoft Word, Microsoft Excel		
Outline:		
<ul style="list-style-type: none"> • Security Controls documentation (all phases) • RIDS Analysis • Fit-Gap Analysis and Findings • Functional and Technical Specifications for Reports • Functional and Technical Specifications for Interfaces and Systems Integration • Functional and Technical Specifications for Data Conversion • Final To-Be Functional Design & Business Changes • Functional and Technical Specifications for Workflow • Application/Workflow Configuration & Documentation • Queries and Reports Development & Documentation • Data Conversion Implementation and Reconciliation Proof Documentation • Updated Business Requirements and Traceability Matrix 		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- **Go-Live Help Desk and Field Support Operational and Logistics Plan**
- **Cutover Plan and Go-Live Communications Package**
- **Production Support Plan**

Assumptions:

- 1. All final deliverables will be stored in project repository for reference by team members.**

Other Comments:

Documentation covered by prior deliverables.

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name	Phase:
50	Prepare Release Checklist for each Release	Managed Services
Description/Objective:		
The objective of the Release Checklist deliverable is to design a release checklist for each release that Managed Services is responsible for the implementation.		
Scope:		
IBM shall design a checklist as a part of its standard operating procedures that outlines the list of key activities and sign-off necessary for each change made to the production environment (related to application, infrastructure, architecture, hardware, software, etc.) during the course of managed services delivery. The activities and sign-off authority shall depend on the nature of the change to production environment. IBM shall produce as a deliverable, for each change to the production, an instance of the release checklist with the evidence of performing the appropriate activities and the sign-off from corresponding authorities. At a minimum, the checklist will include the following items of change and sign-off authorities for the following: <ul style="list-style-type: none">• Architecture: Hardware, hardware maintenance/support, network, operating system, O/S maintenance/support, middleware, middleware maintenance/support, database, database maintenance/support, application, application maintenance/support, technical dependencies• Application feature or capability: Availability requirement, critical service period(s), maintenance window and frequency (scheduled downtime), downtime approval process and communications, user community and representatives, user access, service SLA, services this service is dependent upon, services dependent on this service• Security• Operations: Backup, database management, user management		
Format:		
Microsoft Word/Excel		
Outline:		
<ol style="list-style-type: none">1. Architecture<ol style="list-style-type: none">1.1 Key Changes1.2 Activities1.3 Sign-off2. Application Feature/Capability<ol style="list-style-type: none">1.1 Key Changes1.2 Activities1.3 Sign-off		

Exhibit 2A-9

Deliverable Expectation Document (DED)

- 3. Security**
 - 3.1 Key Changes**
 - 3.2 Activities**
 - 3.3 Sign-off**
- 4. Operations**
 - 4.1 Key Changes**
 - 4.2 Activities**
 - 4.3 Sign-off**

Assumptions:

- 1. Changes are completed and implemented in releases based on priority and complexity.**
- 2. Changes are within scope.**

Other Comments:

No method deliverable

[Sample/template to be provided]

**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
51.1 to 51.X	Disaster Recovery Plan Test and Exercise Reports (Annual)	Managed Services
Description/Objective		
<p>The objective of the Disaster Recovery Test and Exercise Reports deliverable is to provide disaster recovery test and exercise activities as outlined and scheduled in the disaster recovery plan.</p> <p>IBM scope will be limited to assisting in disaster recovery test for the application. The disaster recovery plan will be owned by the County. It is assumed disaster recovery will be conducted once a year.</p>		
Scope:		
<p>IBM shall conduct disaster recovery test and exercise activities as outlined and scheduled in the disaster recovery plan for each exercise and test so conducted, IBM shall produce a report (after action report) that includes the following:</p> <ul style="list-style-type: none"> • Overview of the test and exercise: Name of exercise and test, type of exercise, start date and end date, duration, location, sponsor, primary capabilities being tested, scenarios being tested, exercise planning team, and participating organization(s) • Summary of results from the exercise and test • Lessons learned 		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Requirements 2.3 Related Documents 3. Disaster Recovery Test Plan <ol style="list-style-type: none"> 3.1 Overview of Test and Exercise 3.2 Summary of Results 4. Open and Closed Issues 		

Exhibit 2A-9
Deliverable Expectation Document (DED)

4.1 Open Issues

4.2 Closed Issues

Assumptions:

- 1. The IBM Team will conduct test activities and record results.**
- 2. Results are accurately recorded.**

Other Comments:

TA.050_DISASTER_RECOVERY_STRATEGY.doc

Exhibit 2A-9

Deliverable Expectation Document (DED)

DED Number:	Deliverable Name:	Phase:
52	Audit Compliance Findings	Managed Services
Description/Objective:		
<p>The objective of the Audit Compliance Findings deliverable is to conduct governance, risk, security, and compliance audits of the managed services program as defined in the contract. In addition, IBM shall participate in periodic audit-related activities performed by County/FPD.</p>		
Scope:		
<p>IBM shall conduct governance, risk, security, and compliance audits of the managed services program as defined in the contract. In addition, IBM shall participate in periodic audit-related activities performed by County/FPD that include IBM's managed services program among other aspects of County/FPD. For each such audit, IBM shall produce and maintain in records, a report of the audit and its findings including the following:</p> <ul style="list-style-type: none">• Audit details: Participants, locations, start and end dates, duration, purpose, compliance standard (if any)• Aspects of the managed services program that were audited• Program documentation and other information reviewed to assess compliance• Summary of findings, along with risk and severity of non-conformance, including responsible parties for closure, verification and due dates• Evidence of conformance <p>Audits will be completed by IBM's Data Security and Privacy team for review by the PM/PMO and the technical and functional teams to determine what changes (if any) are necessary.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none">1. Audit dates, participants, audit effort2. Audit Steps<ol style="list-style-type: none">2.1 Requirement Baseline Audit2.2 Software Baseline Audit2.3 System Documentation Baseline Audit3. Audit Results<ol style="list-style-type: none">3.1 Strengths3.2 Weaknesses3.3 Failures and Corrective Actions		
Assumptions:		

Exhibit 2A-9

Deliverable Expectation Document (DED)

1. Not all activities/software/documentation will be within the same audit.

Other Comments:

ART 0668 – ConfigurationBaselineAuditReportUS.doc

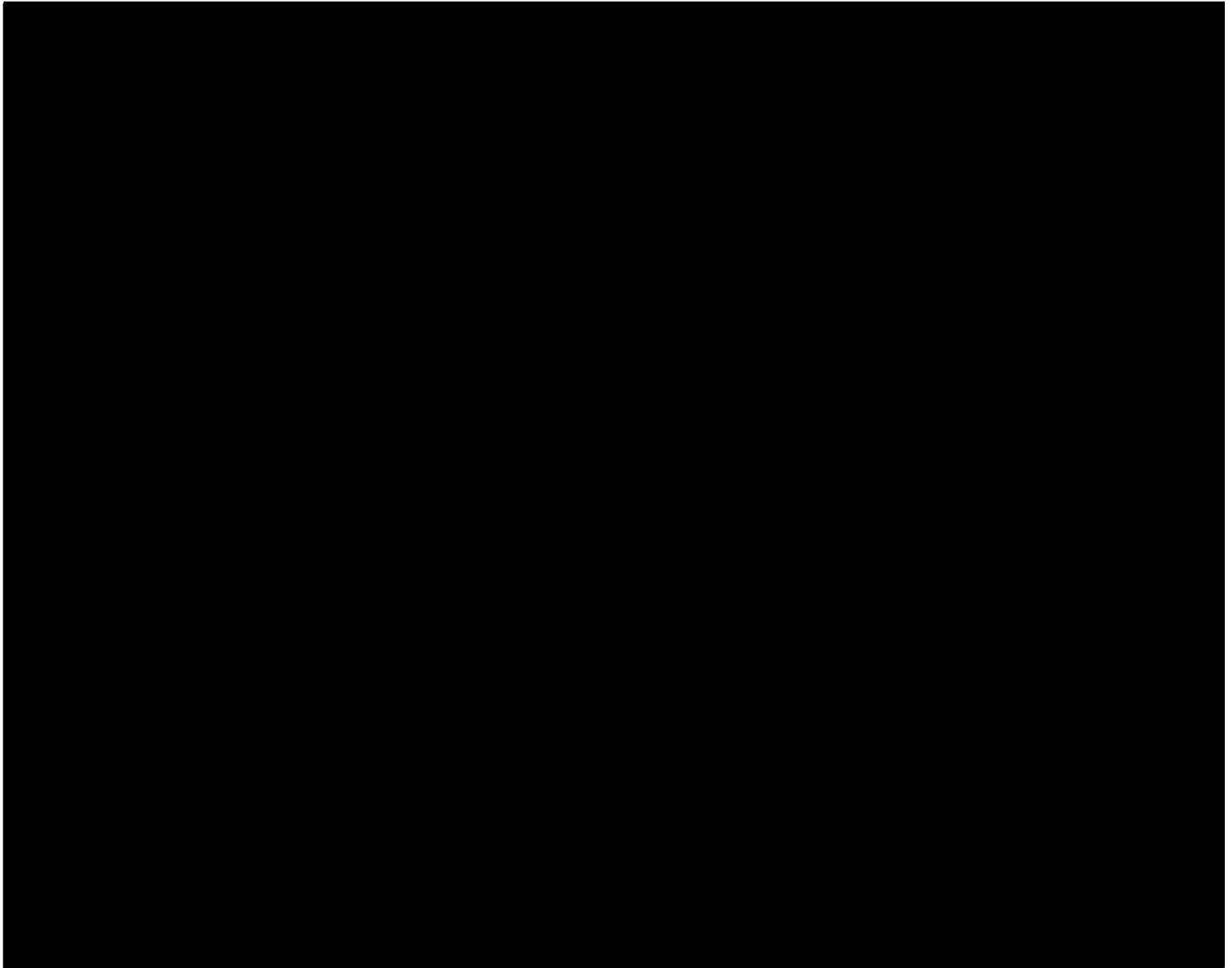
**Exhibit 2A-9
Deliverable Expectation Document (DED)**

DED Number:	Deliverable Name:	Phase:
21.3 to 21.X	Security and Compliance Document	Managed Services
Description/Objective:		
<p>The objective of the Security and Compliance Document is to provide updates to the completed Security and Compliance Document as changes are made to the environment.</p>		
Scope:		
<p>IBM shall provide updates to the completed Security and Compliance Document as changes are made to the environment. IBM will be responsible for all items defined in the Security Services of this document.</p> <p>This document will be designed by the IBM technical team implementing the security controls required to be included in the concept development phase and will be open to modification as needed by the technical team. This document is intended for Business SMEs, Functional Analysts, and Information Technology Analysts who will be implementing, maintaining, or developing applications for the ERP system.</p>		
Format:		
Microsoft Word		
Outline:		
<ol style="list-style-type: none"> 1. Document Control <ol style="list-style-type: none"> 1.1 Change Record 1.2 Reviewers 2. Introduction <ol style="list-style-type: none"> 2.1 Purpose 2.2 Scope 2.3 References 3. Background <ol style="list-style-type: none"> 3.1 General Approach 3.2 Business Drivers 3.3 Security Requirements 4. Security and Control <ol style="list-style-type: none"> 4.1 Network Security 4.2 Web Pages Security 4.3 Application Level Security 4.4 Database Security 4.5 Data Security 4.6 Operating System Security 		

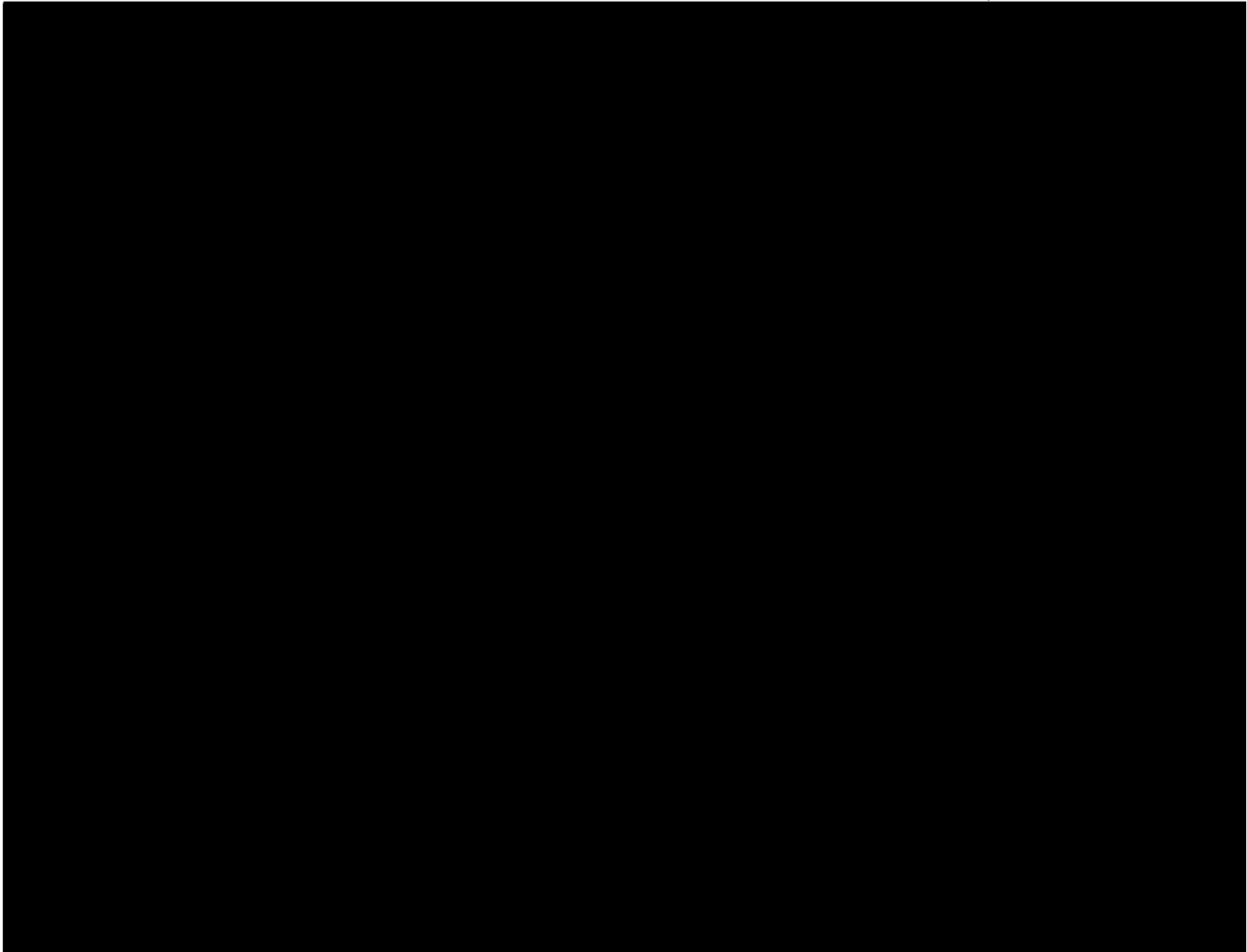
**Exhibit 2A-9
Deliverable Expectation Document (DED)**

<ul style="list-style-type: none">4.7 Remote and Mobile Access4.8 Identity Management4.9 Privacy and Permanence4.10 Data Integrity and Data Non-Repudiation4.11 Auditability and Accountability4.12 Physical Security5. Security Requirements Traceability Matrix6. Security Administration7. Open and Closed Issues<ul style="list-style-type: none">7.1 Open Issues7.2 Closed Issues
Assumptions:
<ul style="list-style-type: none">1. Data and information provided by County/FPD is assumed to be current and accurate.2. Implementation of Roles and Permission Lists will be a collaborative effort between the IBM and County/FPD teams.
Other Comments:
TA.090_SECURITY_AND_CONTROL_STRATEGY

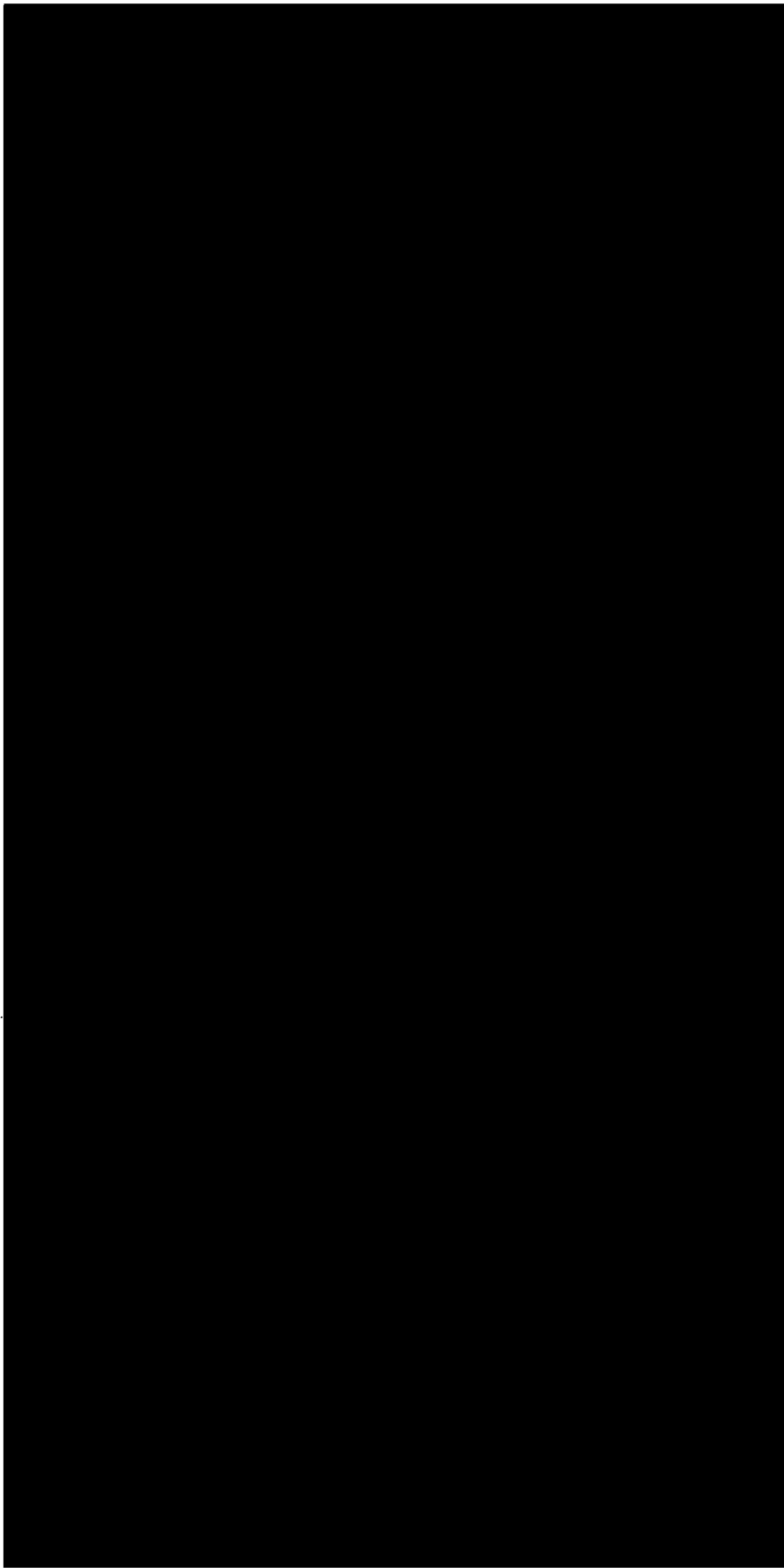
Cross Program Deliverables Payment Schedule



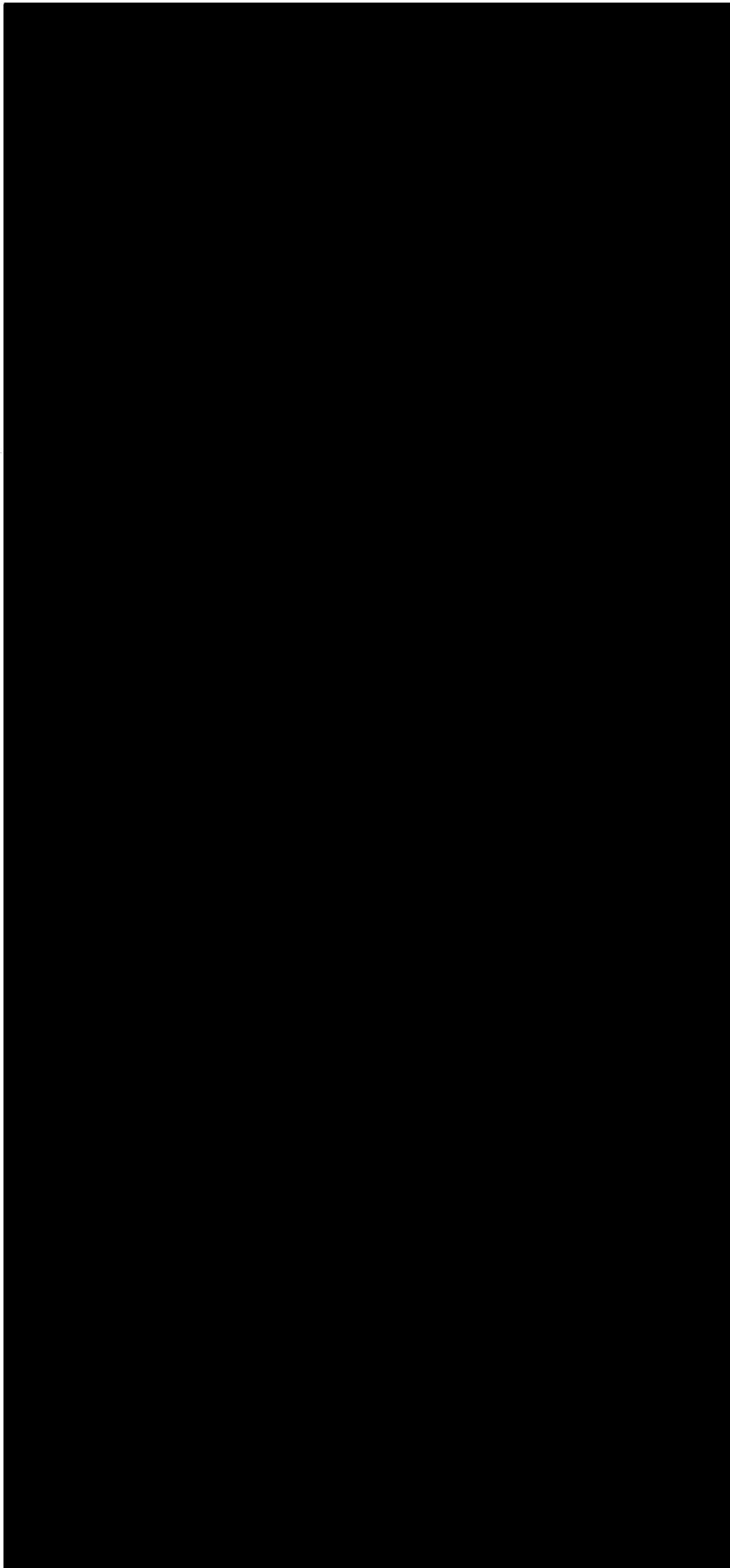
Cross Program Deliverables Payment Schedule



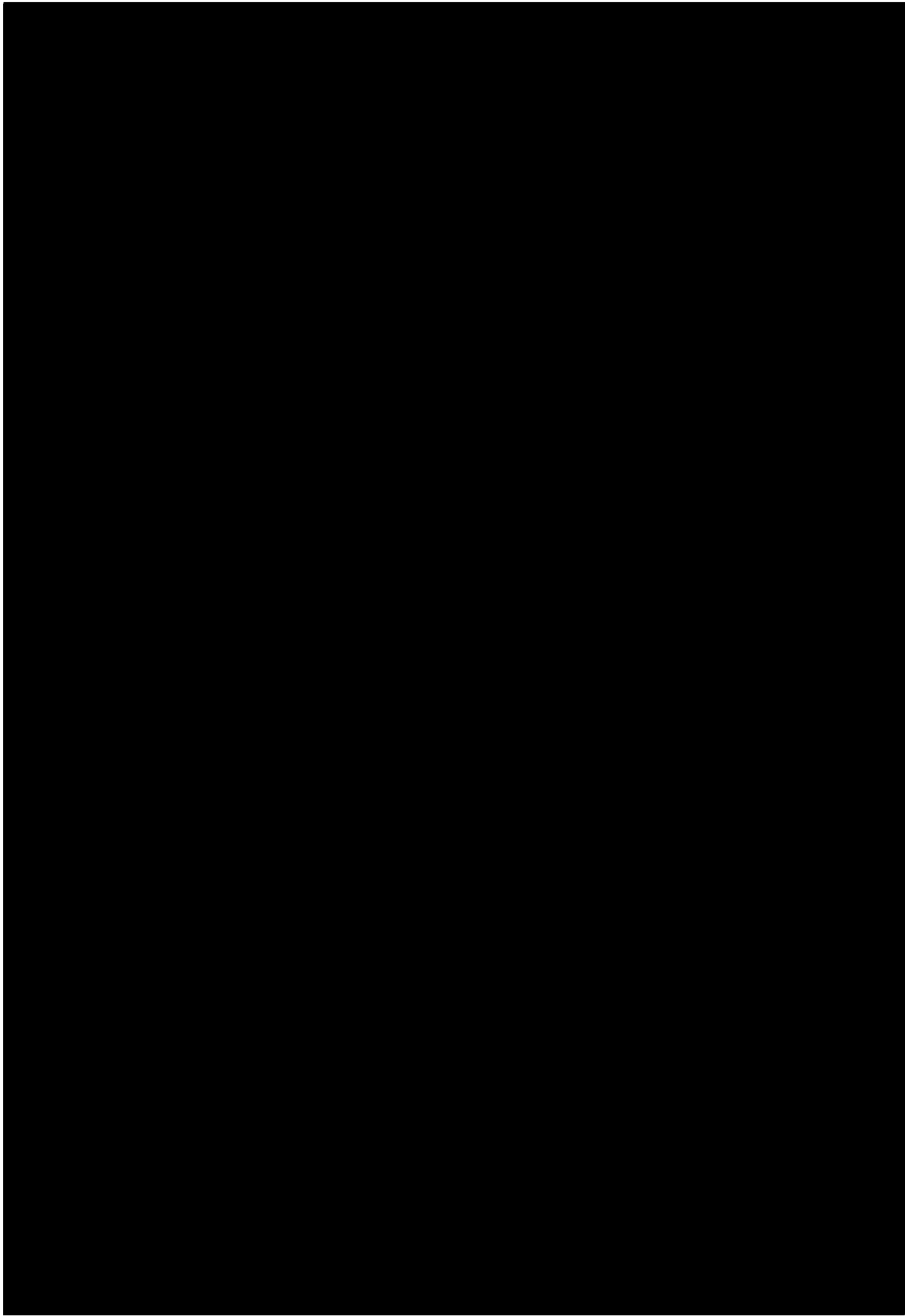
Wave 1 Payment Schedule



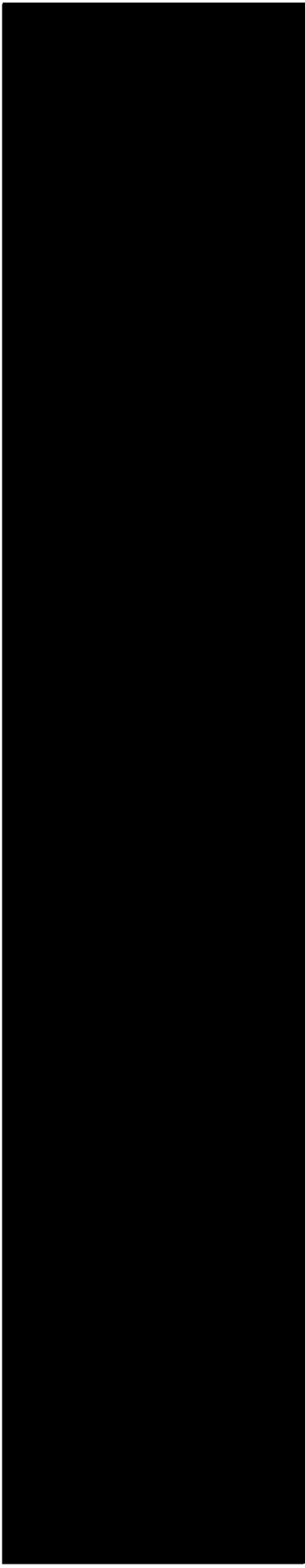
Wave 1 Payment Schedule

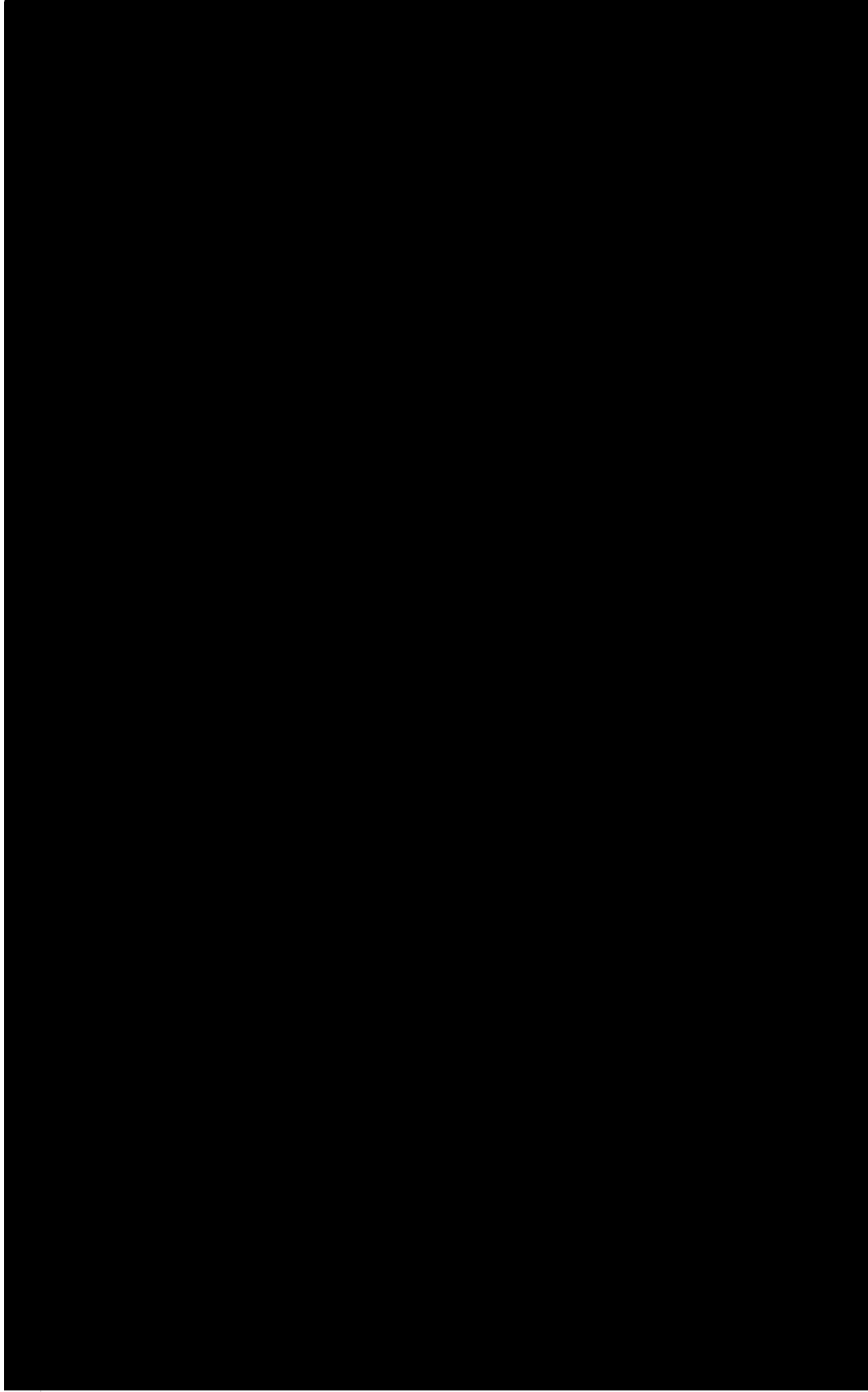


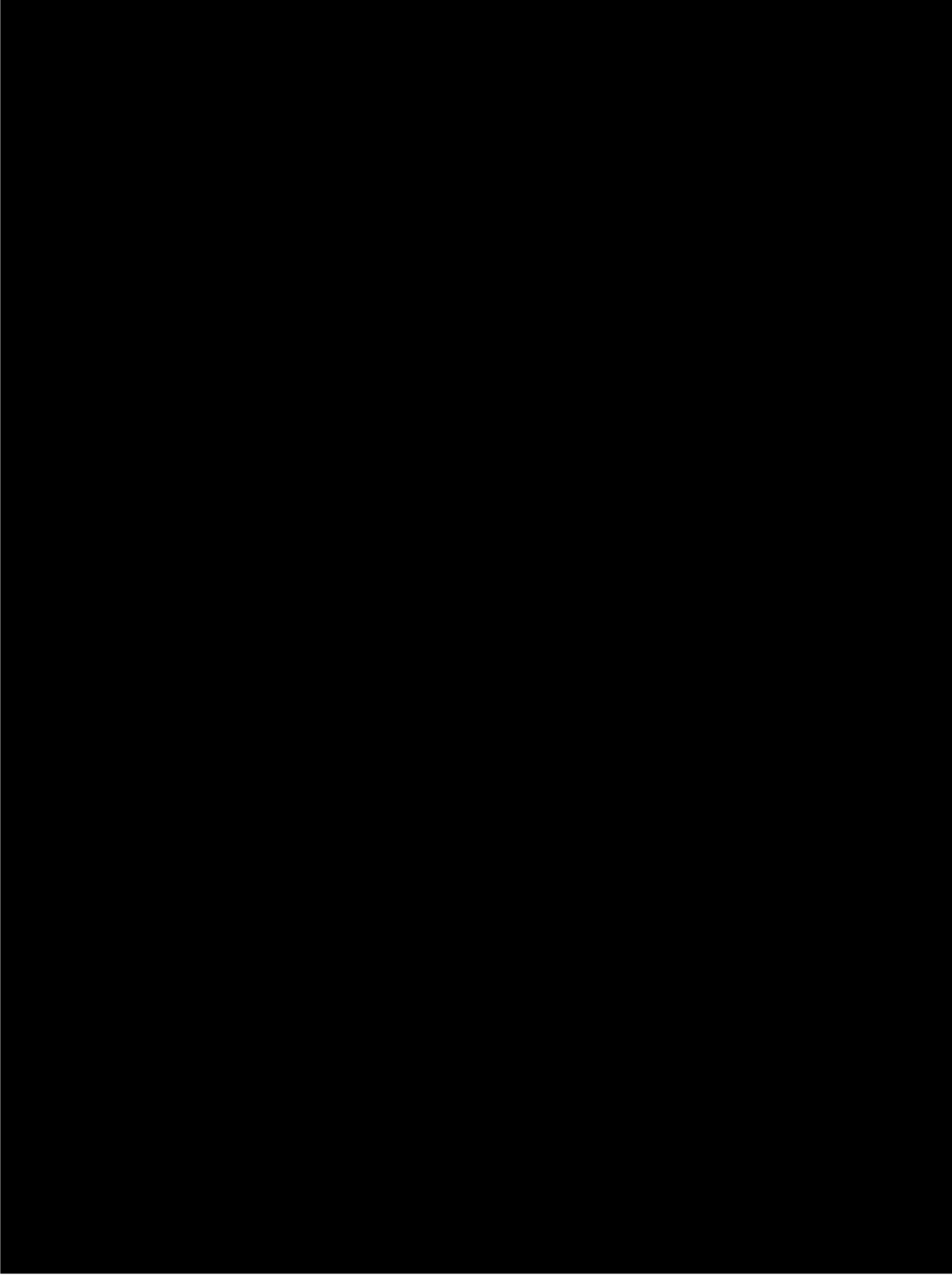
Wave 1 Payment Schedule



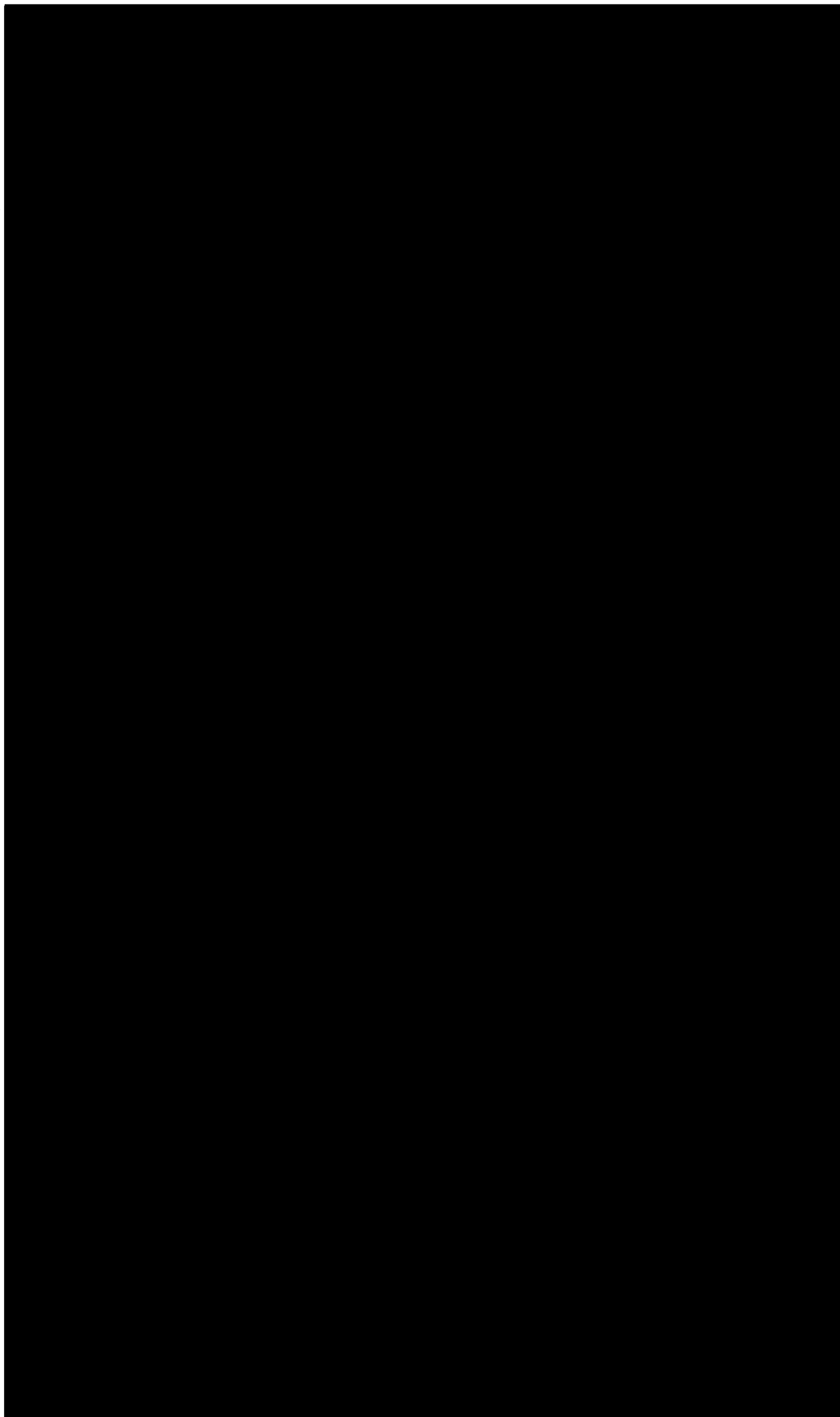
Wave 1 Payment Schedule



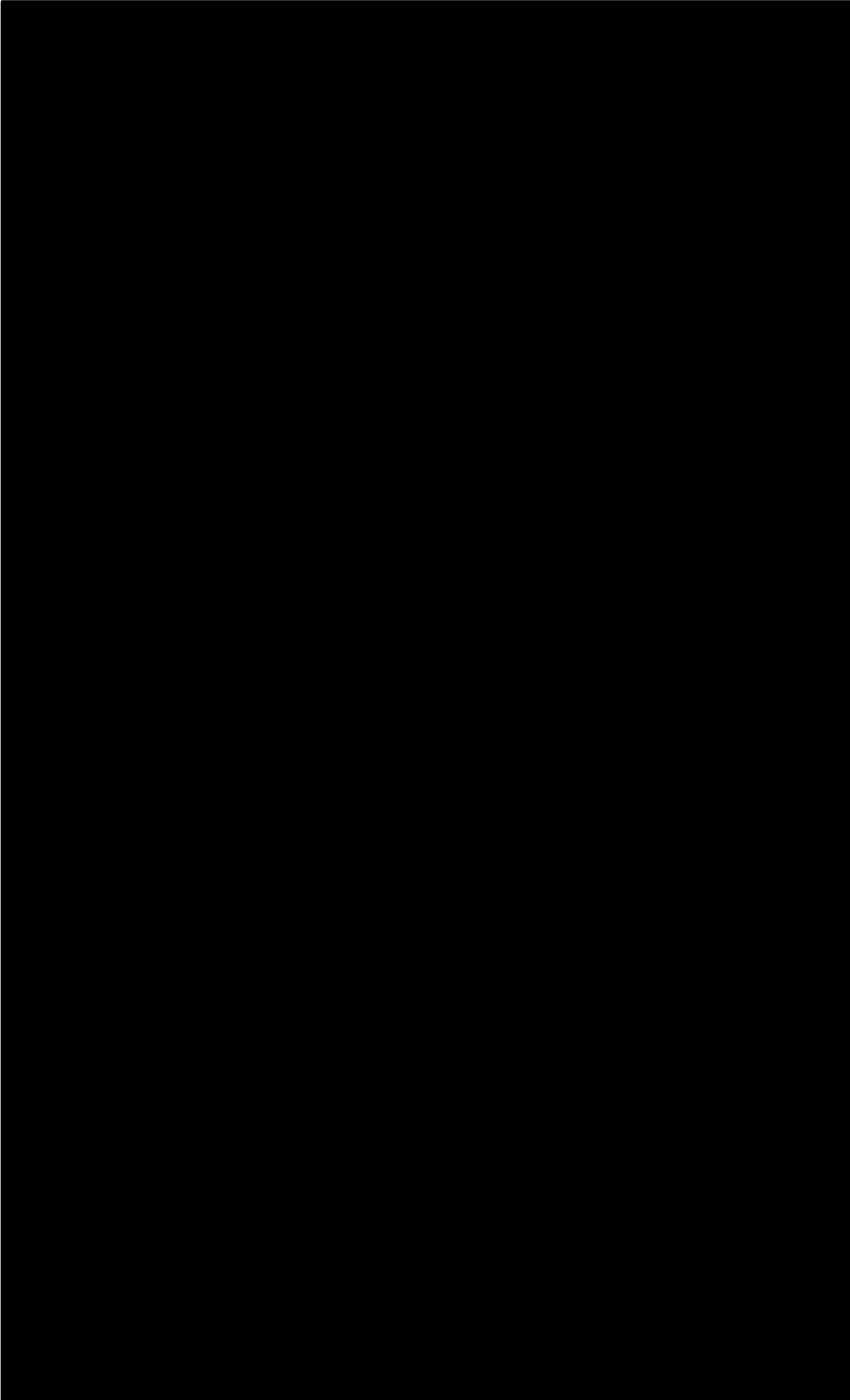




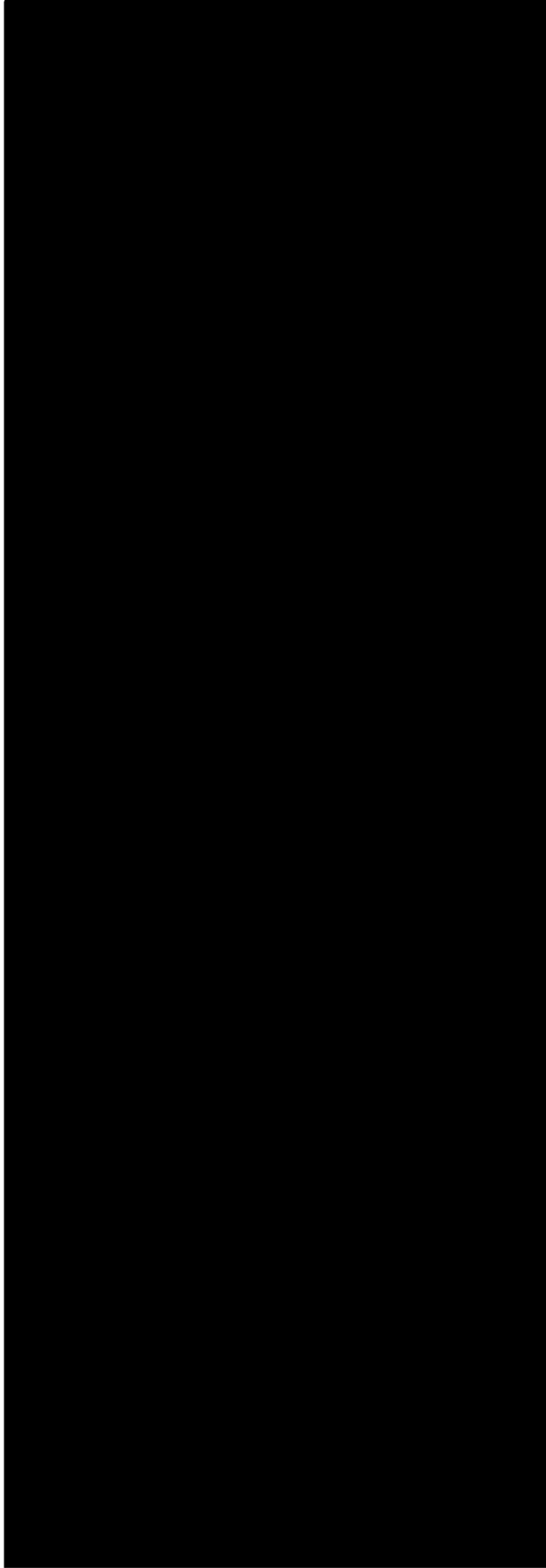
Wave 3 Payment Schedule



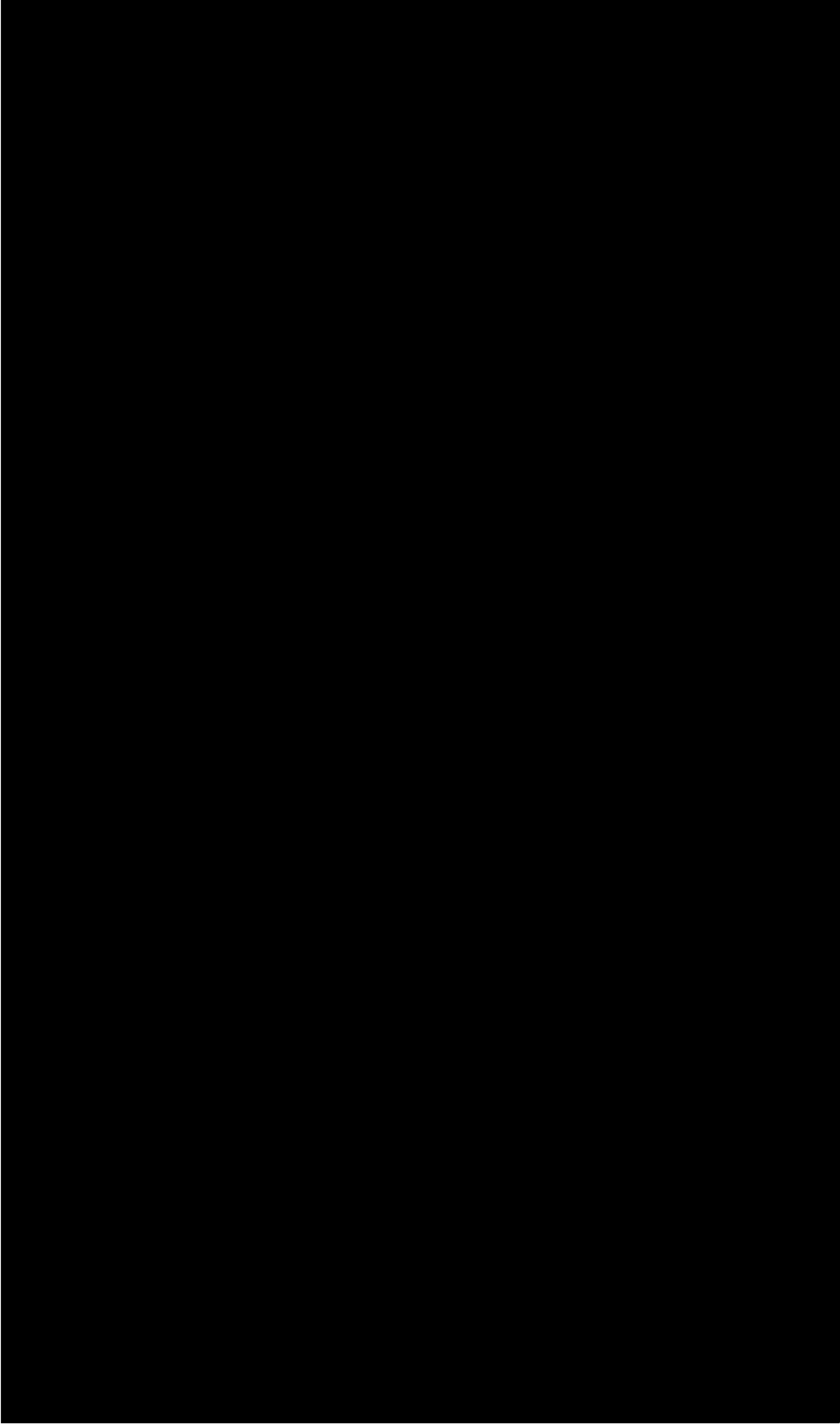
Wave 3 Payment Schedule



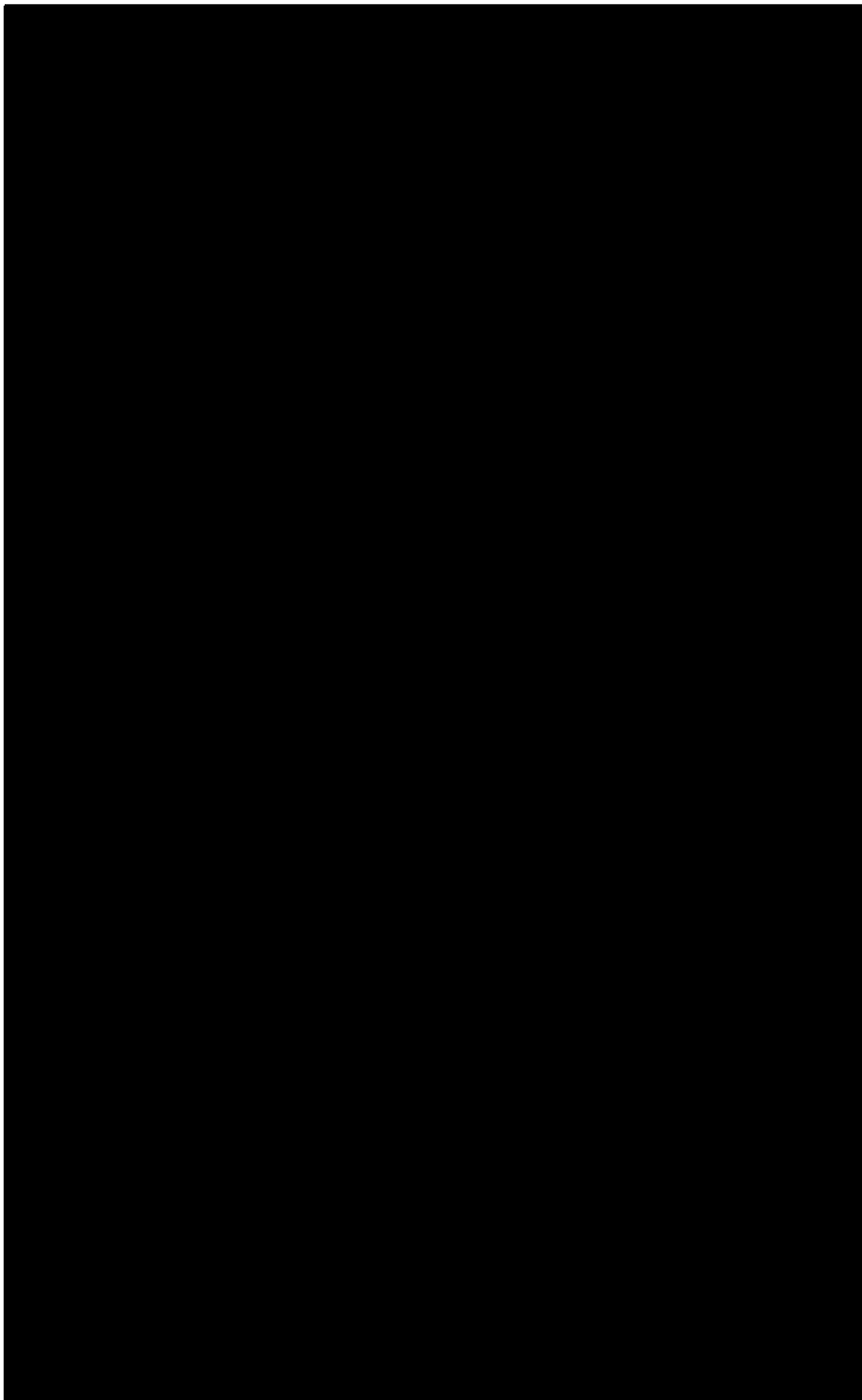
Wave 3 Payment Schedule



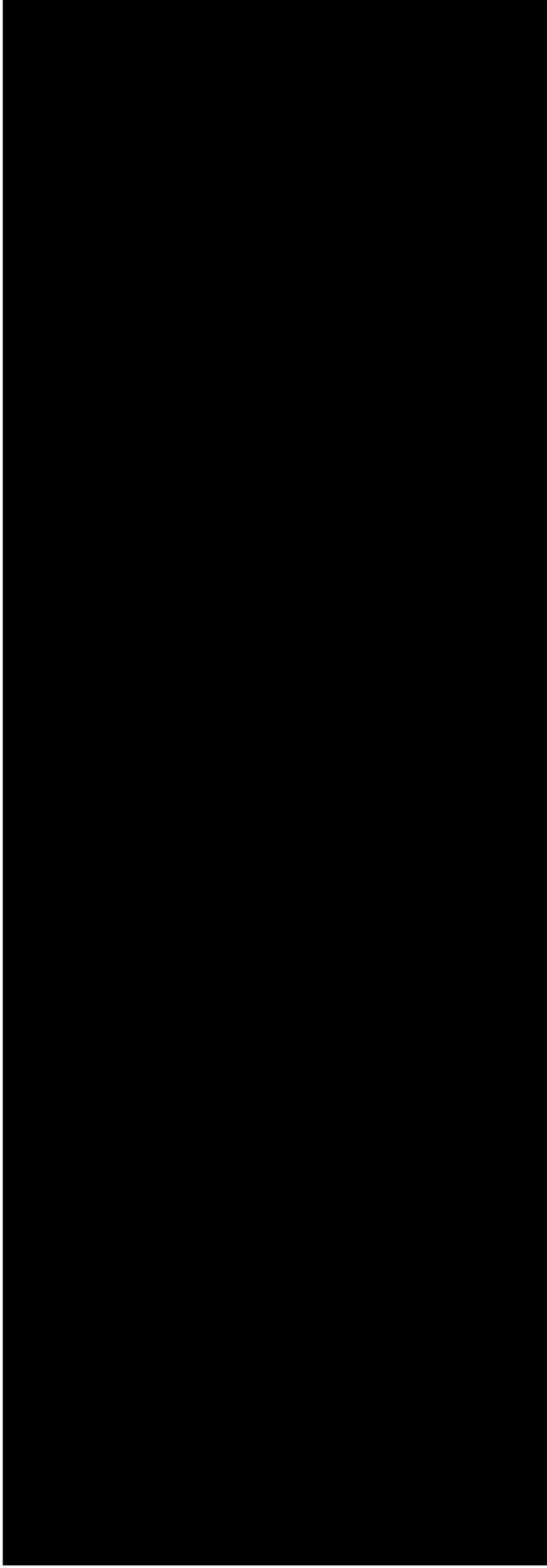
Wave 4 Payment Schedule



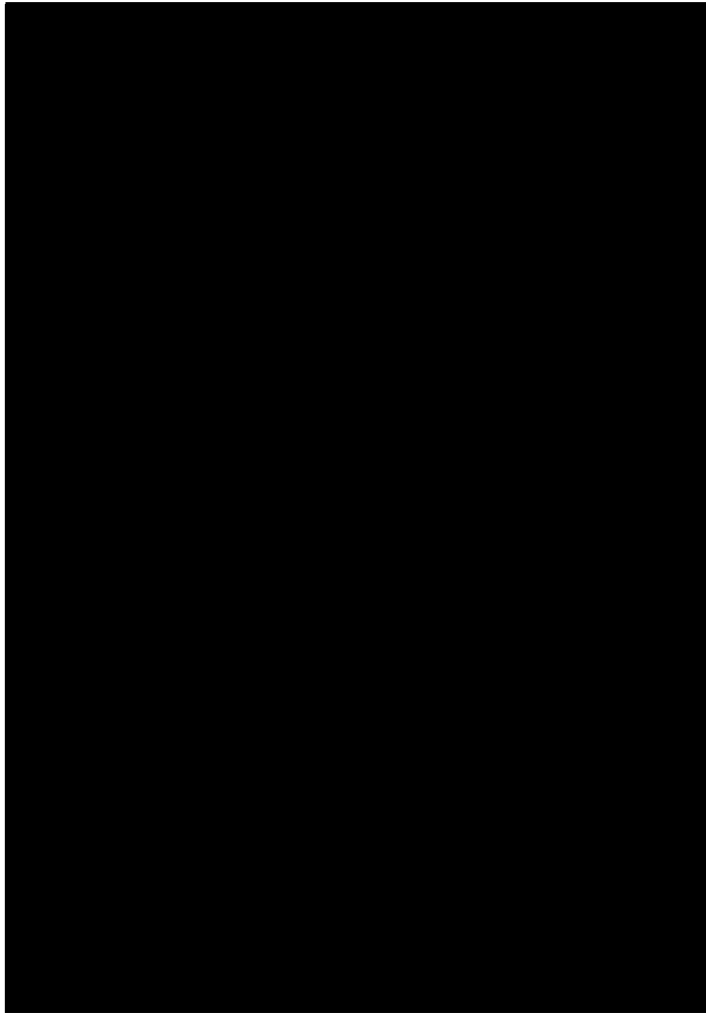
Wave 4 Payment Schedule

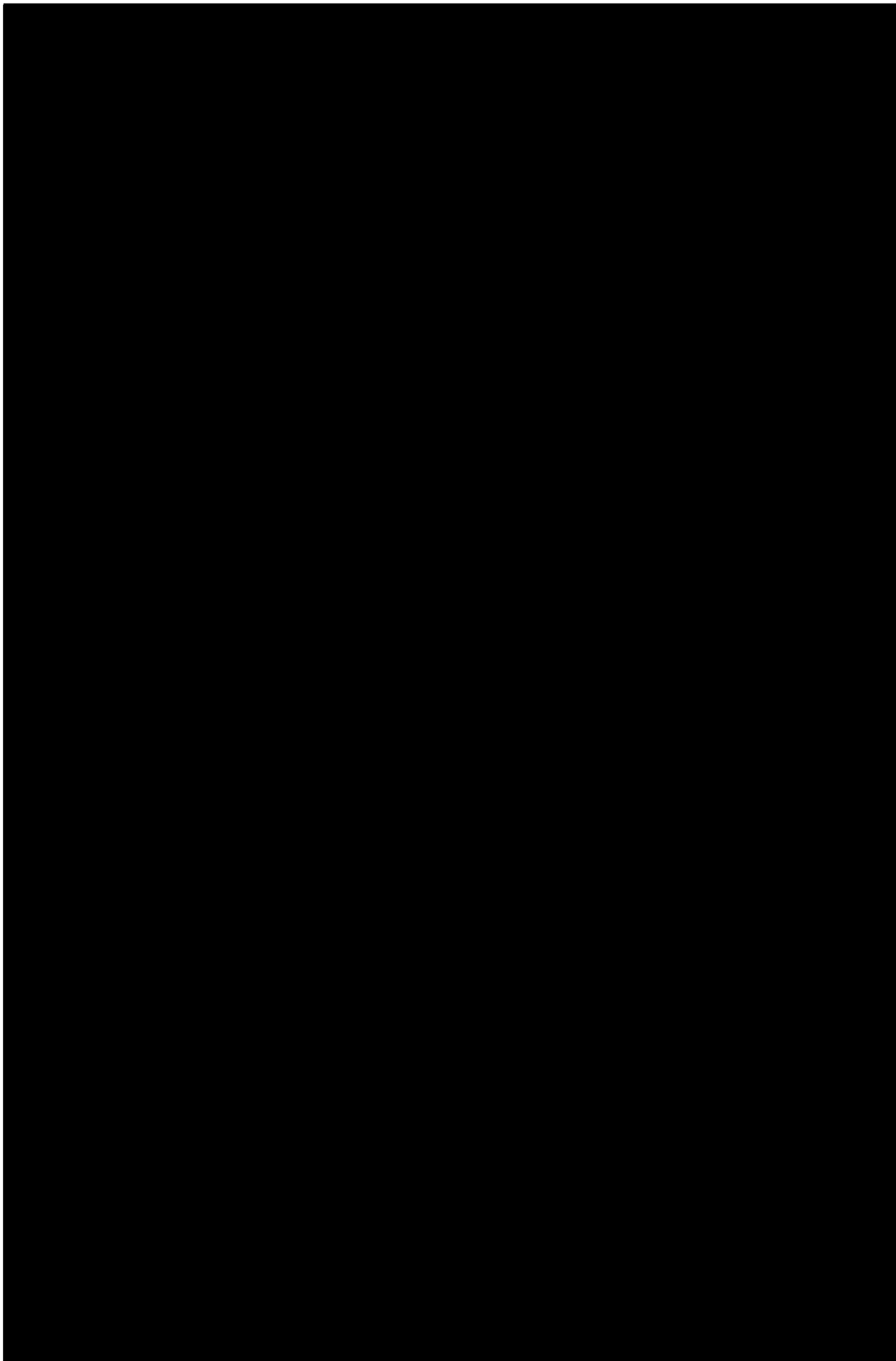


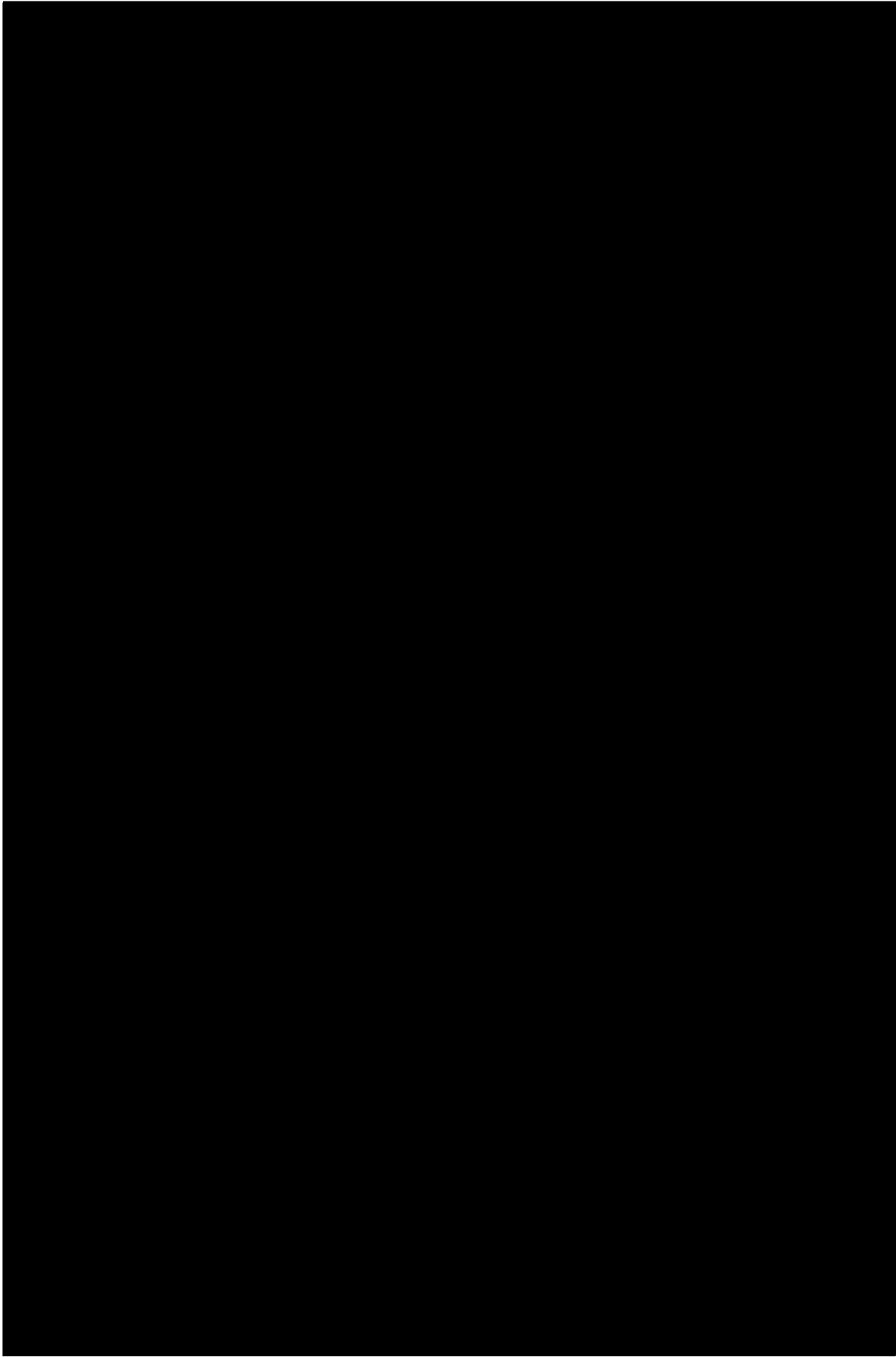
Wave 4 Payment Schedule



Gap Software Annual Maintenance







SCHEDULE 2B
ADDITIONAL SERVICES STATEMENT OF WORK

September 15, 2015

This Statement of Work (“SOW”) describes the work to be undertaken by IBM (“Services”) under the Master Services Agreement by and between County of Cook (“County”) and IBM Corporation (“Provider” or “IBM”) dated September 15, 2015, (“Agreement”) and the terms and conditions contained herein. Described within this SOW is the project, which consists of the deliverable Materials to be provided by IBM, and the IBM responsibilities and related County Responsibilities to be provided in accordance with the terms of this SOW.

Changes to this SOW will be processed in accordance with the procedure described in Schedule 1 Relationship Management Section 5.2 SOW Change Control Procedures of the Agreement (“SOW Change Control Procedure”). The implementation of changes may result in modifications to the Estimated Schedule, Fees, and other terms of this SOW and the Agreement.

To the extent there is any contradiction, inconsistency or ambiguity between the terms of this SOW and the Terms and Conditions, the Terms and Conditions will govern.

1.0 Additional Services

While it is the goal of the County and IBM to articulate clearly defined Deliverables, which IBM will provide, it is possible that there will be other tasks the County requires IBM to perform that cannot be expressed in a Deliverable because they are unknown at the time of completion and execution of the Schedule 2A – Statement of Work. This SOW establishes “accounts” that may be used, at the sole discretion of the Director of ERP, to authorize IBM to perform services within the categories described below.

The Director of ERP will identify the work to be performed by initiating a Work Order to IBM relative to the account. IBM will provide an estimate of the cost and schedule. IBM will commence work when the Work Order is approved by the Director of ERP.

1. County Technical Services

The Director of ERP may use the Technical Services Account to direct IBM to assist or replace County technical effort in technical areas such as:

- a. Technical configuring, monitoring, tuning, and troubleshooting the System Environment;
- b. Coordinating activities with network and workstation administrators;
- c. Developing the technical solution for peripheral device connectivity; and
- d. Data conversion assistance.

2. Training Services

The Director of ERP may direct Contractor to conduct training activities not included in the implementation activities, using the Training Services Account. Examples of such activities include but are not limited to:

- a. Orientation of new ERP Project Office or ERP team members;
- b. Development of training materials; and
- c. Training of end users.

3. Oracle Services

The Director of ERP may direct IBM to coordinate additional services from Oracle to address issues outside of the scope of this contract.

4. Development Services

The Director of ERP may direct IBM to provide additional technical development support. The County's intent is to utilize this support to retire/replace additional shadow systems that would result in significant return on investment (ROI) for the County and further automate business processes. Services may include the development or modification of custom objects for:

- a. Reports
- b. Interfaces
- c. Data Conversions
- d. Extensions
- e. Forms
- f. Workflow

2.0 Status Reporting

Status reports will be prepared by IBM and submitted to the County on a monthly basis. The status report will describe progress against Work Orders and associated actuals vs. budgeted hours/costs. The reports will also include a status of the remaining balance of the account.

3.0 Fees

Work Orders will be performed on a Time & Materials (T&M) or Firm Fixed Price (FFP) basis depending on the nature of the work and as mutually agreed. The hourly labor rates provided with Schedule 3 Fees Appendix 3-5 of the Agreement will serve as the basis for the Work Order estimates and fees.

[End of Schedule 2B]

SCHEDULE 2C

OPTIONAL SERVICES STATEMENT OF WORK

September 15, 2015

This Statement of Work ("SOW") describes the work to be undertaken by IBM ("Services") under the Master Services Agreement, by and between County of Cook ("County") and IBM Corporation ("Provider" or "IBM") dated September 15, 2015, ("Agreement") and the terms and conditions contained herein. Described within this SOW is the project, which consists of the deliverable Materials to be provided by IBM, and the IBM responsibilities and related County Responsibilities to be provided in accordance with the terms of this SOW.

Changes to this SOW will be processed in accordance with the procedure described in Schedule 1 Relationship Management Section 5.2 SOW Change Control Procedures of the Agreement ("SOW Change Control Procedure"). The implementation of changes may result in modifications to the Estimated Schedule, Fees, and other terms of this SOW and the Agreement.

To the extent there is any contradiction, inconsistency or ambiguity between the terms of this SOW and the Terms and Conditions, the Terms and Conditions will govern.

The Services described in this attachment are optional and may be exercised by the County during the performance of the SOW set forth in Schedule 2A. The options described below may be exercised independently of each other, except where otherwise noted.

1.0 Performance and Learning Management

This Service adds Oracle EBS Performance Management and Learning Management Modules to the ERP Implementation Wave 3.

This option must be executed by sixty days prior to the start of Wave 3 to be included as an addition to Wave 3.

Table 1.1 – Wave 3B Deployment Schedule Summary

Wave 3	Performance Management Learning Management	Wave 3B April 1, 2018
--------	---	--------------------------

Functional and Technical Requirements in Scope

IBM will implement the Performance Management and Learning Management modules. The requirements in scope are set forth in Exhibit 2C-1.

Interfaces and Conversions

As Performance Management and Learning Management are new capabilities to County, there are no interfaces or conversion programs to be included to the scope of this effort.

Training

Table 1.2 describes the training scope – maximum content duration, delivery method, and number of instructor led classroom sessions to be delivered by IBM.

Table 1.2 – Wave 3B Training Content Scope

3B	Certification	N/A	0.25	Quick Reference Guide	None
3B	Training Tracking for Admins	N/A	1.00	On-Line Self-Paced	None
3B	Training Tracking for EE/MGR	N/A	0.17	Quick Reference Guide	None
3B	Performance Management	N/A	0.17	Quick Reference Guide	None

Deliverables

IBM will prepare the deliverables listed below in accordance with the Deliverable Expectation Documents (DED) in Schedule 2A Attachment 9. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Schedule 2A Section 7.

Table 1.3 – Wave 3B Deliverable List

Wave 3B Enhanced HR - Performance and Learning Management			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
W3B-4	Baseline Resource Loaded Project Schedule	Update	Project Startup
W3B-5	RACI-VS Matrix	Update	Project Startup
W3B-6	Project Kick-off	Update	Project Startup
W3B-7	Stakeholder Register	Update	Project Startup
W3B-M1	Quality Gate Check – Initiation/Concept Phase	New	Project Startup
W3B-9	Organizational Change Management Plan	Update	Inception
W3B-10	Core Project Team Training Plan	Update	Inception
W3B-11	Cloud Environment Infrastructure Design and Implementation Plan	Update	Inception
W3B-M2	Quality Gate Check - Project Planning Phase	New	Inception
W3B-12	Business Process Improvement (BPI) Recommendations	New	Elaboration
W3B-14.1	Updated Business Requirements and Traceability Matrix	Update	Elaboration
W3B-15	Core Project Team Training Report	New	Elaboration
W3B-M3	Quality Gate Check – Requirements Analysis Phase	New	Elaboration
W3B-16	Fit-Gap Analysis and Findings	New	Elaboration
W3B-34	System and Integration Testing (SIT) Results Documentation	New	Construction
W3B-17.2	Requirements Traceability Validation	Update	Construction
W3B-35	User Acceptance Test (UAT) and Performance Test Plan	Update	Construction
W3B-36.1	Training Materials Development	New	Construction
W3B-M6	Quality Gate Check – Development Phase	New	Construction
W3B-37	Deliver User Acceptance Testing (UAT)	New	Transition

Wave 3B Enhanced HR - Performance and Learning Management			
Deliverable / Milestone Number	Deliverable / Milestone Name	Type	IOM Phase
	Orientation/Training		
W3B-38	UAT Testing Report	New	Transition
W3B-39	Performance Testing Report	Update	Transition
W3B-40	IT Operations Procedures and Training	Update	Transition
W3B-36.2	Final Training Materials	Update	Transition
W3B-M7	Quality Gate Check – Test Phase	New	Transition
W3B-41	Deliver Formal End User Training	New	Transition
W3B-42	Go Live Help Desk and Field Support Operational and Logistics Plan	Update	Transition
W3B-43	Cut Over Plan and Go-Live Communications Package	New	Transition
W3B-44	Go Live Readiness Checklist Assessment	New	Transition
W3B-45	Transition Plan for Production Managed Services	Update	Transition
W3B-46	Service Level Agreement (SLA) Definition, Measurement, Reporting and Payment Structure	Update	Transition
W3B-47	Implement Cut-Over (Go-Live)	Update	Transition
W3B-21.2	Security Controls – Implementation Phase	Update	Transition
W3B-48.1	Standard Operating Procedures for Operations & Support Services	Update	Transition
W3B-M8	Quality Gate Check – Implementation Phase – Go Live	New	Transition
W3B-M9	Final Acceptance	New	Transition

Managed Services

When the solution is migrated to production with Wave 3B, it will be supported in accordance with Section 4.0 of Schedule 2A - Application Managed Services.

County Responsibilities

In addition to the responsibilities listed in the Schedule 2A SOW, the County will have responsibility for:

- Learning management – One County resource (1 FTE) will be dedicated for the duration of the Wave 3 timeline as required to support the design, development, testing and deployment of the learning management solution; they will work with the County to confirm the design and work with the organizations on the testing and deployment
- Performance Management FTE - One County resource (1 FTE) will be dedicated for the duration of the Wave 3 timeline as required to support the design, development, testing and deployment of the learning management solution; they will work with the County to confirm the design and work with the organizations on the testing and deployment

Additional information

Based upon performance management processes specified by the County, the scope is limited to setting up to 15 performance and performance improvement plans.

Fees

Fees for Implementation and Managed Services for this Option are set forth in Appendix 3-4 to this Schedule 2C.

2.0 Enterprise Asset Management (EAM)

This Service adds Oracle Enterprise Asset Management (EAM) to the ERP Implementation Wave 4.

This option must be executed by sixty days prior to the start of Wave 4 to be included as an addition to Wave 4 Supply Chain.

Table 2.1 – EAM Deployment Schedule Summary

Wave 4	Oracle Enterprise Asset Management Oracle Self-Service Work Requests for Oracle EAM Oracle Asset Tracking	April 1, 2018
--------	---	---------------

Functional and Technical Requirements in Scope

IBM will implement the Enterprise Asset Management modules. The requirements in scope are set forth in Exhibit 2C-2.

Interfaces and Conversions

The EAM implementation scope includes one custom interface (medium complexity), one custom workflow (medium complexity), and three data conversions as listed below.

Table 2.2 – EAM Data Conversions

EAM	Asset Bills of Materials, resource and routings	Active	1 Conversion Program	4	Complex	1
EAM	Open Work Orders	Active	1 Conversion Program	4	Complex	1
EAM	Asset Category	Active	1 Conversion Program	4	Low	1

Training

Table 2.3 describes the training scope – maximum content duration, delivery method, and number of instructor led classroom sessions to be delivered by IBM.

Table 2.3 – EAM Training Content Scope

4	Enterprise Asset Management – Preventative	35	2	Classroom Based ILT	2 classes, 20 users each
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	Maintenance				
4	Enterprise Asset Management - Work Crew Ticket Management	130	2	Classroom Based ILT	7 classes, 20 users each

Deliverables

IBM will prepare deliverable content specific to EAM and in accordance with the Deliverable Expectation Documents (DED) in Schedule 2A Attachment 9. IBM will integrate the EAM content into to deliverables prepared for Wave 4 as described in Schedule 2A Attachment 14. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Schedule 2A Section 7.

Managed Services

When the solution is migrated to production with Wave 4, it will be supported in accordance with Section 4.0 of Schedule 2A - Application Managed Services.

County Responsibilities

In addition to the responsibilities listed in the Schedule 2A SOW, the County will have responsibility for:

- Enterprise Asset Manager (EAM) – A minimum of one County resource (1 FTE) will be dedicated for the duration of the Wave 4 timeline as required to support the design, development, testing and deployment of the EAM aspect of the overall solution (covering Work Order and Preventive Maintenance capabilities); they will work with the County to confirm the design and work with the organizations on the testing and deployment.

Fees

Fees for Implementation and Managed Services for this Option are set forth in Appendix 3-4 to this Schedule 2C.

3.0 Mobile Supply Chain Applications (MSCA)

This Service adds Mobile Supply Chain Applications (MSCA) to the ERP Implementation Wave 4.

This option must be executed by sixty days prior to the start of Wave 4 to be included as an addition to Wave 4 Supply Chain.

Table 3.1 – MSCA Deployment Schedule Summary

Wave 4	Oracle Mobile Supply Chain Applications for Oracle Inventory Management	April 1, 2018
--------	---	---------------

Table 3.1 lists additional “gap” software required to implement the MSCA solution but not currently licensed to the County.

IBM, in its capacity as an authorized reseller of Oracle software, will resell to the County the requisite Oracle licenses and maintenance agreements for such software and such software will be implemented with the ERP project pursuant to the Project Schedule. Any Oracle software pricing changes prior to the County’s exercise of this option will be subject to the SOW Change Order Procedure.

Functional and Technical Requirements In Scope

IBM will implement the Oracle Mobile Supply Chain Applications for Oracle Inventory Management. The requirements in scope are set forth in Exhibit 2C-3.

Interfaces and Conversions

For the Oracle Mobile Supply Chain applications, 2 complex interfaces have been included in the scope. There are no conversion programs included in scope of the MSCA effort.

Training

Table 3.2 describes the training scope – maximum content duration, delivery method, and number of instructor led classroom sessions to be delivered by IBM.

Table 3.2 – MSCA Training Content Scope

4	MSCA	N/A	.25	Quick Reference Guide	N/A
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Deliverables

IBM will prepare deliverable content specific to MSCA and in accordance with the Deliverable Expectation Documents (DED) in Schedule 2A Attachment 9. IBM will integrate the MSCA content into to deliverables prepared for Wave 4 as described in Schedule 2A Attachment 14. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Schedule 2A Section 7.

Managed Services

When the solution is migrated to production with Wave 4, it will be supported in accordance with Section 4.0 of Schedule 2A - Application Managed Services.

Responsibilities

In addition to the responsibilities listed in the Schedule 2A SOW, the County will have responsibility for:

- MSCA – One County resource (1 FTE) will be dedicated for the duration of the Wave 4 timeline as required to support the design, development, testing and deployment of the MSCA aspect of the overall solution; they will work with the County to confirm the design and work with the organizations on the testing and deployment
- The County will be responsible for procuring and installing any RF and scanning devices

Fees

Fees for Implementation and Managed Services for this Option are set forth in Appendix 3-4 to this Schedule 2C.

4.0 Property Manager

This Service adds Oracle Property Manager to the ERP Implementation Wave 4. This option can only be exercised if the EAM option has been exercised.

This option must be executed by sixty days prior to the start of Wave 4 to be included as an addition to Wave 4 Supply Chain.

Table 4.1 – Property Manager Deployment Schedule Summary

Wave 4	Oracle Property Manager	April 1, 2018
--------	-------------------------	---------------

Table 3.1 lists additional “gap” software required to implement the Property Manager solution but not currently licensed to the County.

IBM, in its capacity as an authorized reseller of Oracle software, will resell to the County the requisite Oracle licenses and maintenance agreements for such software and such software will be implemented with the ERP project pursuant to the Project Schedule. Any Oracle software pricing changes prior to the County’s exercise of this option will be subject to the SOW Change Order Procedure.

Functional and Technical Requirements in Scope

IBM will implement the Oracle Property Manager module. The requirements in scope are set forth in Exhibit 2C-4.

Interfaces and Conversions

As the Property Manager module addresses new capabilities to the County, there are no custom interfaces or conversion programs included with the scope of this effort.

Training

Table 4.2 describes the training scope – maximum content duration, delivery method, and number of instructor led classroom sessions to be delivered by IBM.

Table 4.2 – Property Manager Training Content Scope

4	Property Manager	N/A	.25	Quick Reference Guide	N/A
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Deliverables

IBM will prepare deliverable content specific to Property Manager and in accordance with the Deliverable Expectation Documents (DED) in Schedule 2A Attachment 9. IBM will integrate the Property Manager content into to deliverables prepared for Wave 4 as described in Schedule 2A Attachment 14. Deliverables will be reviewed by the County and accepted in accordance with the Deliverable Acceptance Process described in Schedule 2A Section 7.

Managed Services

When the solution is migrated to production with Wave 4, it will be supported in accordance with Section 4.0 of Schedule 2A - Application Managed Services.

Responsibilities

In addition to the responsibilities listed in the Schedule 2A SOW, the County will have responsibility for:

- Property Manager – One County resource (1 FTE) will be dedicated for the duration of the Wave 4 timeline as required to support the design, development, testing and deployment of the Real Estate and Property Management aspect of the overall solution; they will work with the County to confirm the design and work with the organizations on the testing and deployment

Fees

Fees for Implementation and Managed Services for this Option are set forth in Appendix 3-4 to this Schedule 2C.

5.0 HIPAA Management Services

As an option to the County, IBM will provide services to support the County in meeting its HIPAA requirements related to Patient Health Information (PHI). Such services are dependent on the County and IBM signing a mutually agreed upon Business Associated Agreement.

IBM will identify, assess, and recommend HIPAA mitigation strategies, as approved by the County, if the County must comply with the HIPAA regulations. IBM will identify actions to help with the County's compliance and help put in place appropriate controls or actions.

IBM will provide resources to:

- Manage annual HIPAA education/training for IBM and subcontractor personnel
- Develop and implement project HIPAA Security Policy and procedures and manage communication to team of such policies related to the scope of the project
- Create account On/Off Boarding Process that include the HIPAA requirements so that all staff are aware of HIPAA project data security requirements
- Recommend HIPAA security controls as part of the Security Deliverables
- Update account ID Administration Process with the HIPAA requirements
- Create and monitor workstation station access to comply with HIPAA controls
- Create and manage HIPAA document repository for storage of policies, processes and procedures used for the County, including required retainage
- Monitor information system activity/privileged access applicable to the HIPAA data in the solution
- Support the project solution architect to design/configure parameters to address HIPAA requirements including configuring and maintaining the Solution with these controls in mind

IBM will update the Security Controls deliverable in accordance with the Deliverable Expectation Documents (DED) in Schedule 2A Attachment 9 to include appropriate HIPAA controls.

Fees

Fees for this Option are set forth in Appendix 3-4 to this Schedule 2C.

Exhibit 2C-1. Oracle Learning Management (OLM) and Performance Management Requirements

Worksheet 04 - Functional and Technical Requirements	
Available Response Codes	49
F	Provided with standard functional the is available with configuration options
CU	Enhancement/Modification (Any)
SR	Provided with Standard Report
CR	Custom Report Development
FV	Requirements will be supported in a future version of the software (within 18 months of response date)
N	Not included in this Proposal
NR	No Response
Total	63

Functional Requirements	
Available Response Codes	49
F	Provided with standard
CU	Enhancement/Modification/Software Customization/Software
SR	Provided with Standard Report
CR	Custom Report Development/Regular
FV	Requirements will be supported in a future version of the software (within 18 months of response date)
N	Not included in this Proposal
NR	No Response
Total	63

Support Requirements - Propose	
Available Response Codes	5
S	Requirement and Feature Supported by Software Developer
TPS	Requirement and Feature Supported by Third Party
MS	Requirement and Feature Supported by Managed Service
NS	Requirement and Feature Not Supported
Total	63

HRSLC	Description	Skills, Competencies, Licenses and Certifications	Human Resources		Software Capability		Software Response		System Enablement/ Sub-Fulfill Requirements		Support Response		Comments
			F	TL	F	TL	F	TL	F	TL	F	TL	
HRSLC	1938	Hours taken in calendar year	F		F		F		F		S		Onsite Time and Labor (OTL) is out of scope, an interface will be created to train Employees. OTL with OLM as training can be recorded in OLM
HRSLC	1939	Hours taken in last year since certification earned	F		F		F		F		S		Onsite Time and Labor (OTL) is out of scope, an interface will be created to train Employees. OTL with OLM as training can be recorded in OLM
HRSLC	1942	System provides notification for employees with expiring certifications	F		F		F		F		S		Onsite Time and Labor (OTL) is out of scope, an interface will be created to train Employees. OTL with OLM as training can be recorded in OLM
PERGEN	2405	System used by all employees to complete performance evaluations online	F		F		F		F		S		
PERGEN	2407	Annual evaluation	F		F		F		F		S		
PERGEN	2409	Probationary period	F		F		F		F		S		
PERGEN	2410	Multi-Year evaluations (monthly, quarterly, etc.)	F		F		F		F		S		
PERGEN	2412	System tracks performance evaluation questions and evaluations (answers) for each question	F		F		F		F		S		
PERGEN	2413	System allows attachment of documents to performance evaluations	F		F		F		F		S		
PEREVAL	2415	Performance Evaluations	F		F		F		F		S		
PEREVAL	2416	Performance Evaluations	F		F		F		F		S		
PEREVAL	2417	Performance Evaluations	F		F		F		F		S		
PEREVAL	2418	Performance Evaluations	F		F		F		F		S		
PEREVAL	2420	Performance Evaluations	F		F		F		F		S		
PEREVAL	2421	Performance Evaluations	F		F		F		F		S		
PEREVAL	2422	Performance Evaluations	F		F		F		F		S		
PEREVAL	2423	Performance Evaluations	F		F		F		F		S		
PEREVAL	2424	Performance Evaluations	F		F		F		F		S		
PEREVAL	2426	Performance Evaluations	F		F		F		F		S		
PEREVAL	2427	Performance Evaluations	F		F		F		F		S		
PEREVAL	2428	Performance Evaluations	F		F		F		F		S		

H Worksheet 04 - Functional and Technical Requirements

Functional Requirements - Available Response Codes	243
F: Provided with standard functionality that is available with configuration options (no custom development)	0
CU: Customized Software Enhancement/Additional Custom (Any custom development)	0
SR: Provided with Standard Report	0
CR: Call on Report Development Required	0
PV: Requirements will be supported in a future version of the software (within 18 months of response date)	0
N: Not Included in this Proposal	0
NR: No Response	0
Total	272

Functional Requirements - Available Response Codes	243
F: Provided with standard functionality that is available with configuration options (no custom development)	0
CU: Customized Software Enhancement/Additional Custom (Any custom development)	0
SR: Provided with Standard Report	0
CR: Call on Report Development Required	0
PV: Requirements will be supported in a future version of the software (within 18 months of response date)	0
N: Not Included in this Proposal	0
NR: No Response	0
Total	272

Support Requirements - Available Response Codes	243
F: Provided with standard functionality that is available with configuration options (no custom development)	0
CU: Customized Software Enhancement/Additional Custom (Any custom development)	0
SR: Provided with Standard Report	0
CR: Call on Report Development Required	0
PV: Requirements will be supported in a future version of the software (within 18 months of response date)	0
N: Not Included in this Proposal	0
NR: No Response	0
Total	272

Oracle Response	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
System Capability	Software Response	System Response	Support Response	System Response	Support Response	System Response	Support Response	System Response
EAM.WO 2555 System integrates with asset module to record maintenance history and costs.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2556 System supports viewing, updating, and adding information to work orders through mobile devices.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2557 Laptop with real time data card connection.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2558 Laptop that will sync with system at given time/location.	Enterprise Asset Management	Work Order	NR		eAM, MSCA (COS)	TPS		Need MSCA module to enable mobile device application (EAM) connection. Also need to understand more about the mobile device device if it is supported/identified but create. This is out of scope (as MSCA is out of scope).
EAM.WO.GEN 2559 Handheld PDA (please list supported devices or imitations)	Enterprise Asset Management	Work Order	NR		eAM, MSCA (COS)	TPS		Need MSCA module to enable mobile device application (EAM) connection. Also need to understand more about the mobile device device if it is supported/identified but create. This is out of scope (as MSCA is out of scope).
EAM.WO.GEN 2560 Mobile units receive new work orders or updates to existing work orders in real time.	Enterprise Asset Management	Work Order	NR		eAM, MSCA (COS)	TPS		Need MSCA module to enable mobile device application (EAM) connection. Also need to understand more about the mobile device device if it is supported/identified but create. This is out of scope (as MSCA is out of scope).
EAM.WO.GEN 2561 Mobile unit logs start and stop time for completing work order.	Enterprise Asset Management	Work Order	NR		eAM, MSCA (COS)	TPS		Need MSCA module to enable mobile device application (EAM) connection. Also need to understand more about the mobile device device if it is supported/identified but create. This is out of scope (as MSCA is out of scope).
EAM.WO.GEN 2562 The system allows users to define dependencies to ensure proper sequencing of tasks (e.g., calling a technician prior to phone installation).	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2563 Can generate account information that is directly related to an activity or task for cost accounting purposes.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2564 Integrate with GIS to allow identification of asset or group of assets.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2565 Generate work order for service that does not apply to an asset.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2566 Supports work order billing for projects (e.g., grants and FEMA).	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2567 Identifies work order performance (e.g. time technician arrives to troubleshoot).	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2568 System indicates the presence of attachments on all screens for attached notes, documents, images, etc.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.GEN 2569 System supports record use time during work order.	Enterprise Asset Management	General Requirements	NR		eAM	S		
EAM.WO.GEN 2570 Links transactions to assets (buildings, areas, equipment).	Enterprise Asset Management	General Requirements	NR		eAM	S		
EAM.WO.GEN 2571 Establish mandatory fields on work request forms such that the submission of a work request is prevented if any mandatory information is missing and	Enterprise Asset Management	General Requirements	NR		eAM	S		
EAM.WO.GEN 2572 the requestor is prompted for completion of mandatory information	Enterprise Asset Management	General Requirements	NR		eAM	S		
EAM.WO.GEN 2573 Establish Task/Activity performance rates based on the priority of work order (e.g. high priority work order is processed within 24 hours)	Enterprise Asset Management	General Requirements	NR		eAM	S		
EAM.WO.BEQ 2574 Generates a work order from a service request.	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.BEQ 2575 Generates a work order without a service request (e.g. respond to an emergency)	Enterprise Asset Management	Work Order	NR		eAM	S		
EAM.WO.BEQ 2576 Accepts Service Requests from Internal departments	Enterprise Asset Management	Service Requests	NR		eAM	S		
EAM.WO.BEQ 2577	Enterprise Asset Management	Service Requests	NR		eAM	S		
EAM.WO.BEQ 2578	Enterprise Asset Management	Service Requests	NR		eAM	S		

Oracle Response

System/Module(s) Sub-Module(s)
 Support Response
 Comments

Software Requirement

EAM.WO.REQ	2579	External customers (citizens) track the following items for each service request	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2580	Date of request	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2581	Priority	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2582	Requester name	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2583	Requester email address	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2584	Requester phone number	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2585	Requester address	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2586	Problem description (short description field and long description free flow text)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2587	Location (support multiple locations)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2588	Department	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2589	Equipment (support multiple equipment)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2590	Equipment (support multiple equipment)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2591	Equipment (support multiple equipment)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2592	Requester category code	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2593	Requester priority	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2594	Requester email address	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2595	Requester phone number	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2596	Requester address	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2597	Estimated hours to complete	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2598	User-defined fields	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2599	Create template service requests based on components. Requester name, address, phone number, email address, performing work.	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2600	Stores information on repeat work requests including the following: Requester name, Requester department, Requester address, Requester phone number, Requester email address, Pre-populated fields based on Commonly requested service items	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2608	Requester	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2609	User defined fields	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2610	Applies service order or work order status changes, including date/time work requested, status change, date/time status changed, test results (if applicable), action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2611	date/time work requested, status change, date/time status changed, test results (if applicable), action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2612	date/time status changed, test results (if applicable), action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2613	date/time status changed, test results (if applicable), action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2614	test results (if applicable), action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2615	action taken (if applicable)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2616	Bill of materials (auto create necessary items needed on a request. Items are not actual work items completed)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2617	Allows reviewers to request additional clarification from the requester	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2618	Notifies requester whether the service request has been rejected or approved and converted into a work order	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2619	Ability for requesters to browse status of requests	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2620	Allows for service order requests to be generated by any of the following: user defined, system-generated (e.g. preventative maintenance schedules), system-generated (e.g. preventative maintenance schedules)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2621	user defined, system-generated (e.g. preventative maintenance schedules), system-generated (e.g. preventative maintenance schedules)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2622	system-generated (e.g. preventative maintenance schedules), system-generated (e.g. preventative maintenance schedules)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2624	system-generated (e.g. preventative maintenance schedules)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO.REQ	2625	Generates multiple work orders for the same request and maintains tracking of the original service requests (parent/child relationships)	Enterprise Asset Management	Service Requests	NR	F	F	eAM	S
EAM.WO	2626	Creates a work order from a service request	Enterprise Asset Management	Work Order	NR	F	F	eAM	S
EAM.WO	2627	Generates unique work order number	Enterprise Asset Management	Work Order	NR	F	F	eAM	S
EAM.WO	2628	Work Order	Enterprise Asset Management	Work Order	NR	F	F	eAM	S
EAM.WO	2629	Work Order	Enterprise Asset Management	Work Order	NR	F	F	eAM	S
EAM.WO	2630	Work Order	Enterprise Asset Management	Work Order	NR	F	F	eAM	S
EAM.WO	2631	Prevents duplicate work orders.	Enterprise Asset Management	Work Order	NR	F	F	eAM	S

Oracle Response

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Req ID	Req Description	Oracle Response	Impact	Priority	Category	Source	Comments
EAMWO 2631	System maintains a detailed coded listing of activities and tasks	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2632	Maintains and tracks statistical information for each activity type of work orders	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2633	Safety	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2634	Emergency	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2635	Preventive Maintenance	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2636	Corrective	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2637	Project	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2638	Automatically generates preventive maintenance (PM) activities	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2639	Project data dates	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2640	App	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2641	Location	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2642	Milage	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2643	Asset Type	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2644	Failure Code with associated remedy	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2645	Other user defined schedule for a given work order	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2646	structured task list	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2647	standard parts list	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2648	required equipment	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2649	polices and procedures	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2650	approved levels of service	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2651	health and safety requirements	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2652	lockdown/out requirements	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2653	training and certification	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2654	Maintains instructions or checklist on how to complete the task/activity.	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2655	System can issue an emergency work order each task	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2656	no approvals are required, and information can be entered after the fact.	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2657	Tracks the following information in a work order: Asset number, Requestor, Requestor email address, Location, Date and time of request, Special considerations for completing work (building hours, etc.)	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2658	complaint or problem	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2659	Emergency	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2660	Type	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2661	Facility ID and/or name	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2662	Description of asset	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2663	Multiple contract names and information	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2664	Problem description	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2665	Preventive maintenance	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2666	Change	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2667	Priority	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2668	Activity Codes	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2669	Task code (specific tasks completed to correct problem)	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2670	Scheduled start date	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2671	Status code	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2672	Open	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2673	Roll (prints on order)	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2674	Assigned	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2675	Close	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2676	In-design	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2677	Waiting approval	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2678	User-defined	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2679	Request completion date	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2680	Completion date	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2681	Project number	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2682	General locator	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2683	Location ID	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2684	Department	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2685	Customer	Enterprise Asset Management Work Order	NR	S	System		
EAMWO 2686	Completed by	Enterprise Asset Management Work Order	NR	S	System		

Oracle Response

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
EAM/NO	Requirement	Oracle Response	Requirement	Requirement	Requirement	Requirement	Requirement	Requirement	Requirement	Requirement	Requirement
EAM/NO	2688	Whether or not request is safety-related	Enterprise Asset Management	Work Order	NR						
EAM/NO	2689	Percent completed	Enterprise Asset Management	Work Order	NR						
EAM/NO	2700	Account code	Enterprise Asset Management	Work Order	NR						
EAM/NO	2701	Identifies work orders requiring an	Enterprise Asset Management	Work Order	NR						
EAM/NO	2702	MSDS (Material Safety Data Sheet)	Enterprise Asset Management	Work Order	NR						
EAM/NO	2703	Indicates if work order is being cool	Enterprise Asset Management	Work Order	NR						
EAM/NO	2704	Comments that	Enterprise Asset Management	Work Order	NR						
EAM/NO	2705	Prevents work orders from closing until all related tasks are completed	Enterprise Asset Management	Work Order	NR						
EAM/NO	2706	Prevents work orders based on user-defined parameters or assignments	Enterprise Asset Management	Work Order	NR						
EAM/NO	2707	Allows users to override/modify recurring or PM work orders before they are actually generated with appropriate security	Enterprise Asset Management	Work Order	NR						
EAM/NO	2708	Places a work order on "hold" pending parts arrival, etc.	Enterprise Asset Management	Work Order	NR						
EAM/NO	2709	Notifies users via email when a work order is on hold with reason	Enterprise Asset Management	Work Order	NR						
EAM/NO	2710	Notifies requester when work has been completed through automated notification	Enterprise Asset Management	Work Order	NR						
EAM/NO	2711	Provides automatic notification of work order status change	Enterprise Asset Management	Work Order	NR						
EAM/NO	2712	Work order status change	Enterprise Asset Management	Work Order	NR						
EAM/NO	2713	Work order hold	Enterprise Asset Management	Work Order	NR						
EAM/NO	2714	Completed	Enterprise Asset Management	Work Order	NR						
EAM/NO	2715	Close	Enterprise Asset Management	Work Order	NR						
EAM/NO	2716	Other user defined criteria	Enterprise Asset Management	Work Order	NR						
EAM/NO	2717	System can track the skill level and certification by trade for technicians performing work orders (i.e. plumbing, carpentry, etc.)	Enterprise Asset Management	Work Order	NR						
EAM/NO	2718	System can import data from an external source	Enterprise Asset Management	Work Order	NR						
EAM/NO	2719	Uses workflow to approve the following	Enterprise Asset Management	Work Order	NR						
EAM/NO	2720	Open work order	Enterprise Asset Management	Work Order	NR						
EAM/NO	2721	Places work order on hold (e.g. Deferred maintenance)	Enterprise Asset Management	Work Order	NR						
EAM/NO	2722	Close work order	Enterprise Asset Management	Work Order	NR						
EAM/NO	2723	Void work order	Enterprise Asset Management	Work Order	NR						
EAM/NO	2724	Approve work requests based on any one or combination of the following criteria	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2725	Type of work (e.g., location vs. scheduled repair)	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2726	Priority of work (e.g., PM vs. emergency)	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2727	cost	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2728	overtime required	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2729	system type (e.g., runway, wastewater, pavement, permit, backflow)	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2730	geography (e.g., North, South)	Enterprise Asset Management	Work Order Approval	NR						
EAM/NO	2731	User can assign work order to one person	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2732	Multiple people	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2733	The system must assign work order to	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2734	Supervisors	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2735	Technicians	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2736	Crews	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2737	Contractors	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2738	Other user defined groups	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2739	Assigns work orders by type of trade	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2740	Assign work orders by geographic	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2741	Assign work orders by type of trade	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2742	Assign work orders to only certain	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2743	Schedule tasks to the second by	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2744	Assigns time slot priorities by trade	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2745	Updates the equipment value or P	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2746	Prioritizes work orders based on P	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2747	Staff availability	Enterprise Asset Management	Order Assignment/Scheduling	NR						
EAM/NO	2748	Safety requirements	Enterprise Asset Management	Order Assignment/Scheduling	NR						

Exhibit 2C-2: Enterprise Asset Management (EAM) Requirements

Oracle Response		(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)	Comments	
Req ID	Req Description	Req Type	Req Category	Req Sub-Category	Req Status	Req Priority	Req Urgency	Req Impact	Req Scope	Req Complexity	Req Risk	Req Effort	Req Cost	Req Time	Req Resources	Req Skills	Req Tools	Req Integrations	Req Dependencies	Req Notes	
EAM.WO.SCHED 2758	Regulatory requirements	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2759	Public Area In	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2760	Initial work schedule	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2761	Asset availability	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2762	User-defined criteria	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2763	User-defined criteria	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2764	Define available hours for each	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2765	The system must create a permit	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2766	The system must generate a work	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2767	Displays backlogged work orders	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2768	Generates notices to managers w	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2769	Issue a work request that can be a	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2770	Can reassign a work order from o	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2771	Can reassign work orders to appro	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2772	The system must track a work ord	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2773	Equipment utilized	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2774	Equipment hours	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2775	Equipment hourly rate	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2776	Labor hours	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2777	Hourly rate	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2778	Overtime	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2779	Labor overhead	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2780	Materials	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2781	Outside contractors	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2782	Equipment	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2783	Tasks	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.SCHED 2784	Associated fees	Enterprise Asset Management	Order Assignment/Scheduling	NR																	
EAM.WO.MON 2785	Tracks the completion of discrete	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2786	phases of the work order.	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2787	Work crew members change time	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2788	by	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2789	Work order	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2790	activity	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2791	Can track contract hours to a	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2792	work order.	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2793	Captures work abing the way -	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2794	costs	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2795	Interim reporting and tracking of	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2796	work order	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2797	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2798	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2799	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2800	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2801	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2802	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2803	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2804	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2805	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	
EAM.WO.MON 2806	System change orders to work o	Enterprise Asset Management	Work Order Monitoring	NR																	

Oracle Response

Requirement ID	Requirement Description	Software Capability	Software Response	Compliance	Impact	Priority
EAM.WO.BILL	2807 Ability to establish minimum billing and/or reports	SR	SR	F	eAM	S
EAM.WO.BPT	2808 Generate the following queries and/or reports	SR	SR	F	eAM	S
EAM.WO.RPT	2809 Description (type of work to be performed)	SR	SR	F	eAM	S
EAM.WO.RPT	2810 Work order type (planned, routine, quality inspection, preventive)	SR	SR	F	eAM	S
EAM.WO.RPT	2811 Work Order Objectives	SR	SR	F	eAM	S
EAM.WO.RPT	2812 Task by Status	SR	SR	F	eAM	S
EAM.WO.RPT	2813 Task Assignment by Technician	SR	SR	F	eAM	S
EAM.WO.RPT	2814 Exceeded target dates	SR	SR	F	eAM	S
EAM.WO.RPT	2815 Registrar	SR	SR	F	eAM	S
EAM.WO.RPT	2816 Total work order cost	SR	SR	F	eAM	S
EAM.WO.RPT	2817 Material, Equipment and Labor	SR	SR	F	eAM	S
EAM.WO.RPT	2818 Work Order Registrar	SR	SR	F	eAM	S
EAM.WO.RPT	2819 Backlog Report by Trade and Shop	SR	SR	F	eAM	S
EAM.WO.RPT	2820 Work Order Efficiency Report	SR	SR	F	eAM	S
EAM.WO.RPT	2821 Work Order Efficiency Report (Requests, Completed, Duration)	SR	SR	F	eAM	S
EAM.WO.RPT	2822 Work Order Cost per building and per piece of equipment	SR	SR	F	eAM	S
EAM.WO.RPT	2823 Work Order History by Asset, location and type	SR	SR	F	eAM	S
EAM.WO.RPT	2824 Work Order by department	SR	SR	F	eAM	S
EAM.WO.RPT	2825 Work Order by location	SR	SR	F	eAM	S
EAM.WO.RPT	2826 Work Orders for Project	SR	SR	F	eAM	S
EAM.WO.RPT	2827 Maintenance schedules can be built directly from manufacturer maintenance schedules	SR	SR	F	eAM	S
EAM.PM	2828 System schedules work orders based on calendar days	SR	SR	F	eAM	S
EAM.PM	2829 Work order generated a specific number of days, even if work not performed	SR	SR	F	eAM	S
EAM.PM	2830 Floating (work order generated a specific number of days from when previous work orders completed)	SR	SR	F	eAM	S
EAM.PM	2831 daily	SR	SR	F	eAM	S
EAM.PM	2832 weekly	SR	SR	F	eAM	S
EAM.PM	2833 monthly	SR	SR	F	eAM	S
EAM.PM	2834 semi-monthly	SR	SR	F	eAM	S
EAM.PM	2835 quarterly	SR	SR	F	eAM	S
EAM.PM	2836 semi-annually	SR	SR	F	eAM	S
EAM.PM	2837 annually	SR	SR	F	eAM	S
EAM.PM	2838 on call (when equipment is available for shut-down)	SR	SR	F	eAM	S
EAM.PM	2839 condition	SR	SR	F	eAM	S
EAM.PM	2840 run-time	SR	SR	F	eAM	S
EAM.PM	2841 System allows override of work order schedule with proper user security and authority	SR	SR	F	eAM	S
EAM.PM	2842 Identifies preventive maintenance work items that were not performed due to other conflicts	SR	SR	F	eAM	S
EAM.PM	2843 The system must track incomplete preventative maintenance for immediate follow up or delay until next regularly scheduled maintenance activity	SR	SR	F	eAM	S
EAM.PM	2844 Generates a master list of scheduled preventive maintenance activities due in a selected period	SR	SR	F	eAM	S
EAM.PM	2845 Identifies assets that are under warranty prior to generating a work order	SR	SR	F	eAM	S
EAM.PM	2846 System generates a listing of assets that have not adhered to maintenance activities	SR	SR	F	eAM	S

		Oracle Response					
		(1)	(2)	(3)	(4)	(5)	(6)
		Software Capability	Software Response	System (Products) Sub-manufactured Required to Fulfill Requirements	Support Response	Comments	
EAM.PM	2847	Track warranties for various County assets and component assets for example, vehicles, heavy equipment, facility assets such as choppers, and asset components such as phone and equipment.	Enterprise Asset Management	Preventative Maintenance	NR		

Worksheet 04 - Functional and Technical Requirements

Available Response Codes	Functional Requirements	Support Requirements - Proposer
F	Provided with standard functionality that is available with configuration on options (no custom development)	Requirement and Feature Supported by Software Developer
CU	Customize (or) Software Enhancement/Modifications (Any custom development)	TPS Requirement and Feature Supported by Third Party
SR	Provided with Standard Report	IMS Requirement and Feature Supported by Managed Service
CR	Custom Report Development Required	MS Requirement and Feature Not Supported
FV	Requirements will be supported in a future version of the software (within 18 months of response date)	
N	Not included in the Proposal	
NR	No Response	
Total	7	8

Available Response Codes	Functional Requirements	Support Requirements - Proposer
F	Provided with standard functionality that is available with configuration on options (no custom development)	Requirement and Feature Supported by Software Developer
CU	Customize (or) Software Enhancement/Modifications (Any custom development)	TPS Requirement and Feature Supported by Third Party
SR	Provided with Standard Report	IMS Requirement and Feature Supported by Managed Service
CR	Custom Report Development Required	MS Requirement and Feature Not Supported
FV	Requirements will be supported in a future version of the software (within 18 months of response date)	
N	Not included in the Proposal	
NR	No Response	
Total	7	8

Oracle Response

EAM, FM	2872	Mobile devices can work with or without a network connection	Enterprise Asset Management	Mobile Technology	NR	NR	MSCA	Support Response	Comments
EAM, FM	2873	Record GPS coordinates when submitting records to the database	Enterprise Asset Management	Mobile Technology	NR	NR	MSCA	F	Currently GPS coordination is not supported by standard Oracle Out Of The Box
EAM, FM	2874	Support camera, video and voice recording data captured on mobile device	Enterprise Asset Management	Mobile Technology	NR	NR	MSCA	CU	Currently video camera, voice recording coordination are not supported by standard Oracle Out Of The Box
EAM, FM	2875	Read RFID data	Enterprise Asset Management	Mobile Technology	F	NR	MSCA	CU	Currently video camera, voice recording coordination are not supported by standard Oracle Out Of The Box
EAM, FM	2877	Read barcode data	Enterprise Asset Management	Mobile Technology	NR	NR	MSCA	F	
EAM, FM	2878	Store data on the device for upload into ERP at a later time	Enterprise Asset Management	Mobile Technology	NR	NR	MSCA	F	
Total					7	7			

Worksheet 04 - Functional and Technical Requirements

Available Response Codes	Functional Requirements - Available Response Codes	Software Capability	Software Response	Comments
F	Provided with standard functional that is available with configuration options (no custom development)			
CU	Customization/Software Enhancement/Custom (Any custom development)			
SR	Provided with Standard Report			
CR	Custom Report Development Required			
PV	Requirements will be supported in a future version of the software within 6 months of response date			
N	Not Included in this Proposal			
NR	No Response			
Total	7			

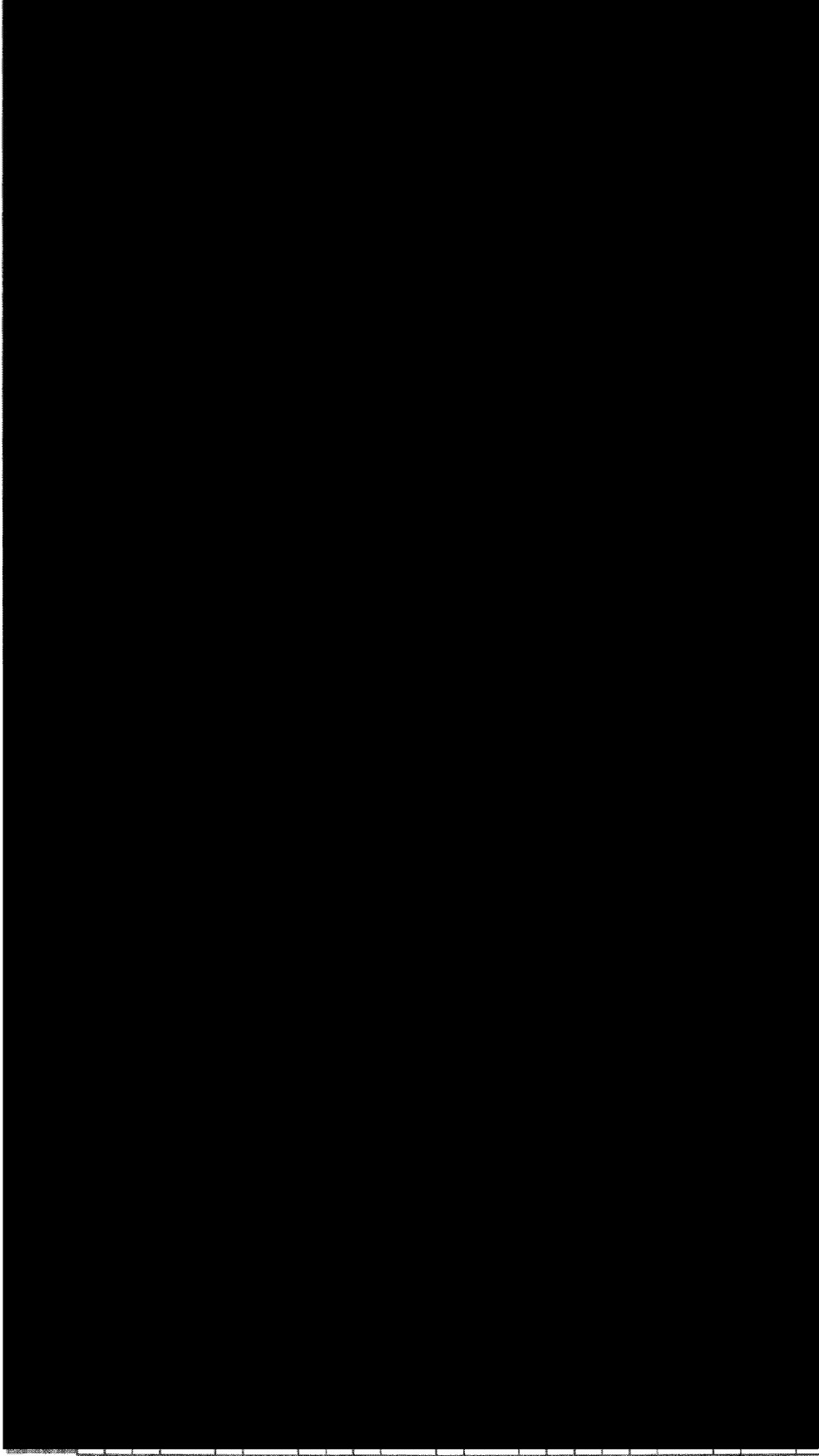
Available Response Codes	Functional Requirements - Available Response Codes	Software Capability	Software Response	Comments
F	Provided with standard functional that is available with configuration options (no custom development)			
CU	Customization/Software Enhancement/Custom (Any custom development)			
SR	Provided with Standard Report			
CR	Custom Report Development Required			
PV	Requirements will be supported in a future version of the software within 6 months of response date			
N	Not Included in this Proposal			
NR	No Response			
Total	7			

Available Response Codes	Functional Requirements - Available Response Codes	Software Capability	Software Response	Comments
S	Requirement and Feature Supported by Software Developer			
TPS	Requirement and Feature Supported by Third Party			
MS	Requirement and Feature Supported by			
NS	Requirement and Feature Not Supported			
Total	24			

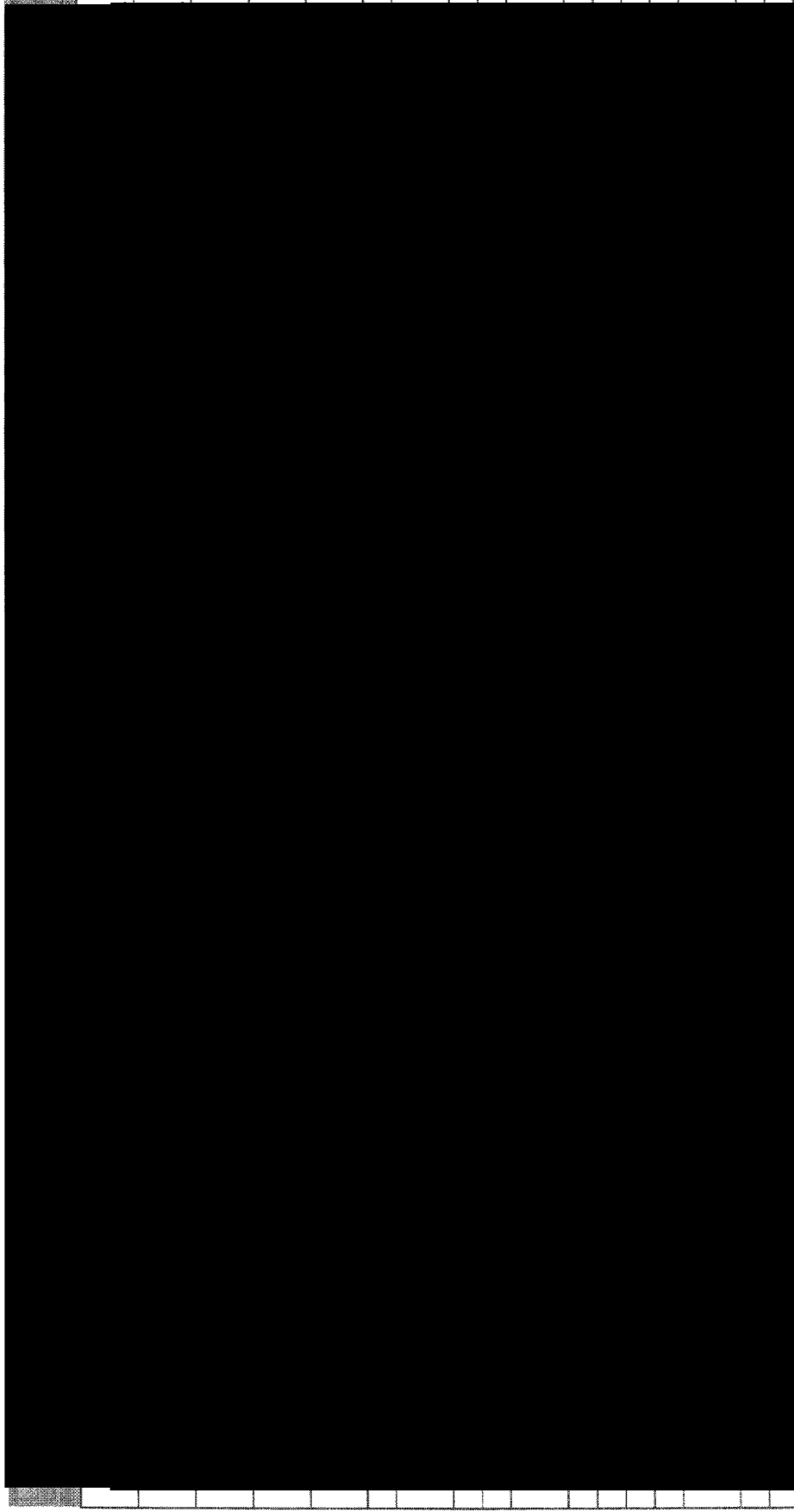
Oracle Response

Available Response Codes	Functional Requirements - Available Response Codes	Software Capability	Software Response	Comments
EAM_GEN	2848	Enterprise Asset Management	Enterprise Asset Management	General Requirements
EAM_REM	2849	Provide repository for leases, floor plans and other documents with capability of viewing, downloading, printing, e-mailing.	Enterprise Asset Management	Real Estate Management
EAM_REM	2850	Records leases by property record	Enterprise Asset Management	Real Estate Management
EAM_REM	2851	Record notes and charges by property record	Enterprise Asset Management	Real Estate Management
EAM_REM	2852	Tracks key dates for lease agreements	Enterprise Asset Management	Real Estate Management
EAM_REM	2853	Notifications to users are issued based on key dates	Enterprise Asset Management	Real Estate Management
EAM_REM	2854	Tracks status of lease obligations	Enterprise Asset Management	Real Estate Management
EAM_FM	2855	Physical space is tracked by the following	Enterprise Asset Management	Facilities Management
EAM_FM	2856	Region	Enterprise Asset Management	Facilities Management
EAM_FM	2857	Zone	Enterprise Asset Management	Facilities Management
EAM_FM	2858	Building	Enterprise Asset Management	Facilities Management
EAM_FM	2859	Wing	Enterprise Asset Management	Facilities Management
EAM_FM	2860	Floor	Enterprise Asset Management	Facilities Management
EAM_FM	2861	Room	Enterprise Asset Management	Facilities Management
EAM_FM	2862	Sub-room	Enterprise Asset Management	Facilities Management
EAM_FM	2863	The following is tracked within the physical space	Enterprise Asset Management	Facilities Management
EAM_FM	2864	Ownership	Enterprise Asset Management	Facilities Management
EAM_FM	2865	Occupancy	Enterprise Asset Management	Facilities Management
EAM_FM	2866	Assets	Enterprise Asset Management	Facilities Management
EAM_FM	2867	Contacts	Enterprise Asset Management	Facilities Management
EAM_FM	2868	Functional Use	Enterprise Asset Management	Facilities Management
EAM_FM	2869	Equipment	Enterprise Asset Management	Facilities Management
EAM_FM	2870	Employees	Enterprise Asset Management	Facilities Management
EAM_FM	2871	Service Requests and Work Orders are issued by the physical space identifiers	Enterprise Asset Management	Facilities Management

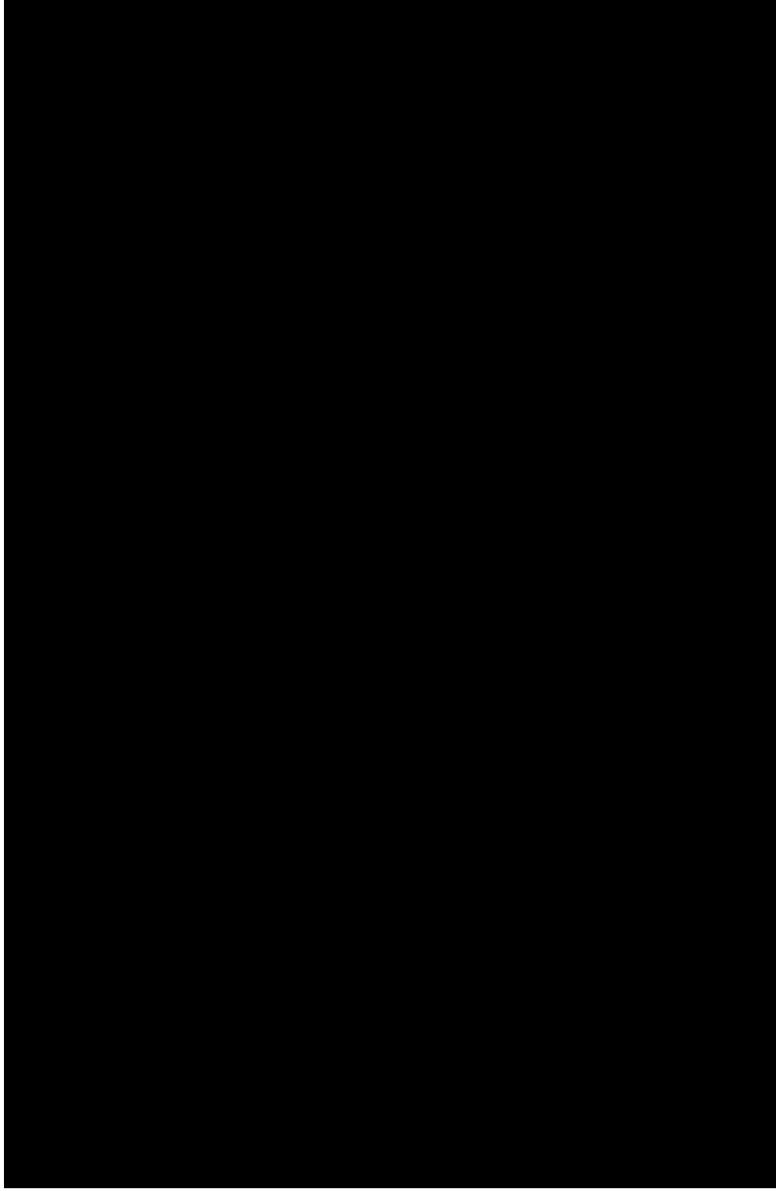
Wave 3 Optional Scope - Performance & Learning Management Payment Schedule



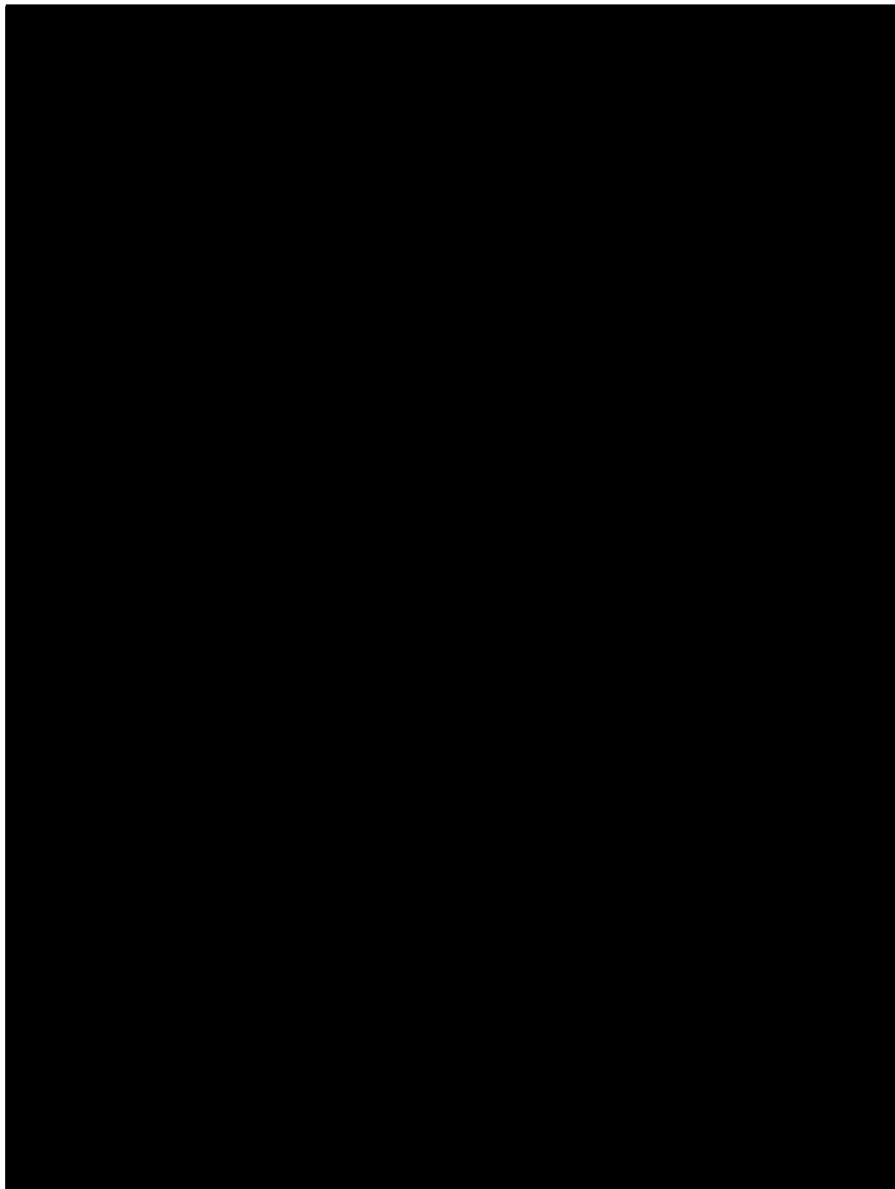
Wave 3 Optional Scope - Performance & Learning Management Payment Schedule

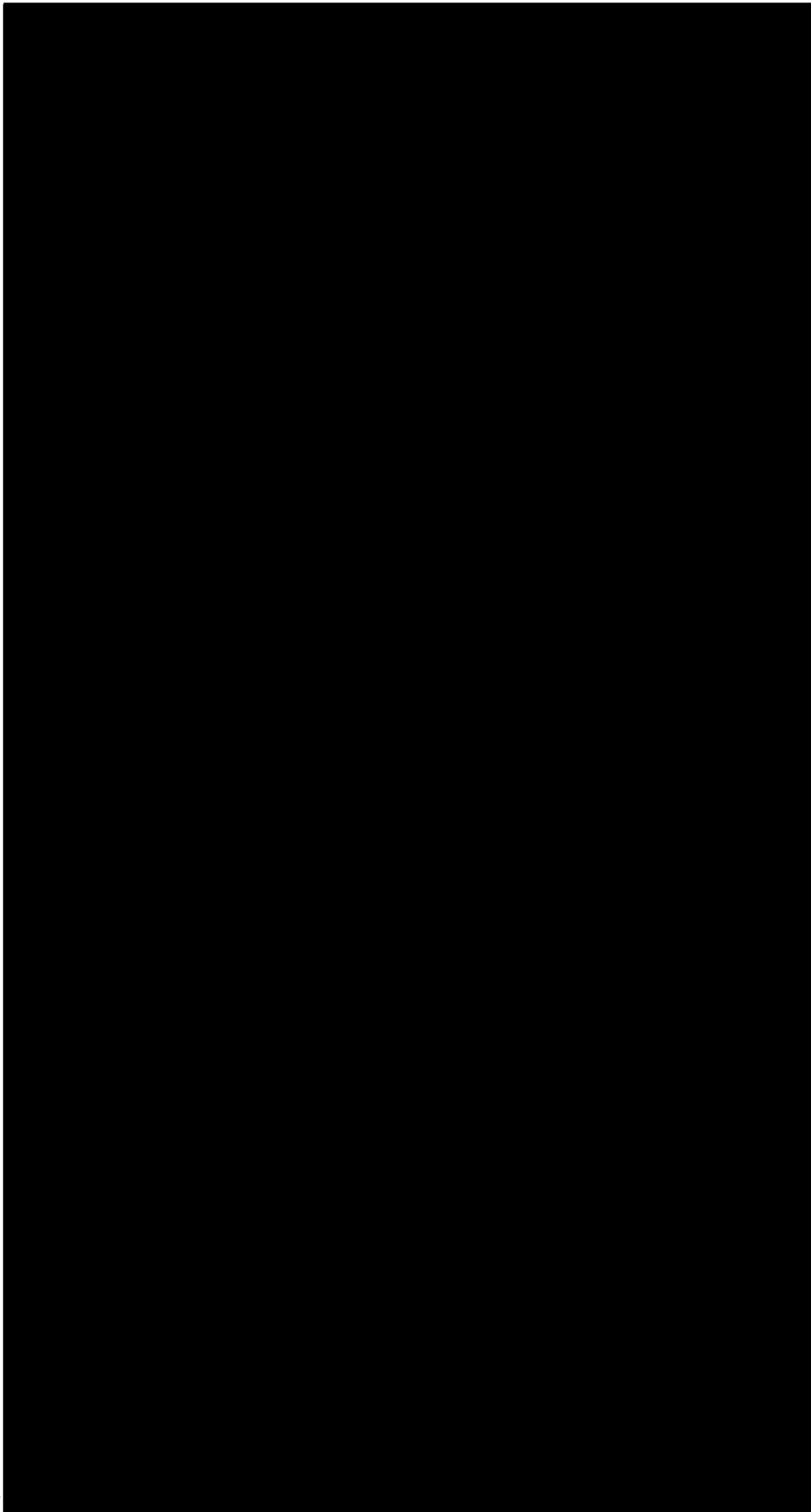


Wave 4 - EAM Option Payment Schedule

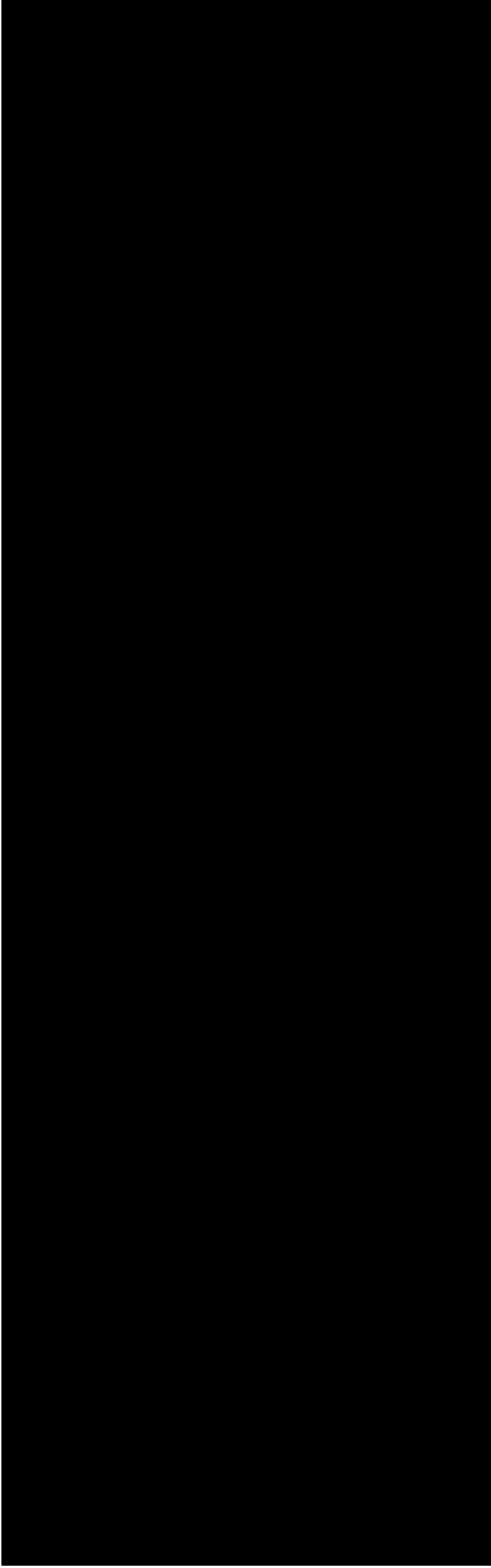


Wave 4 - EAM Option Payment Schedule





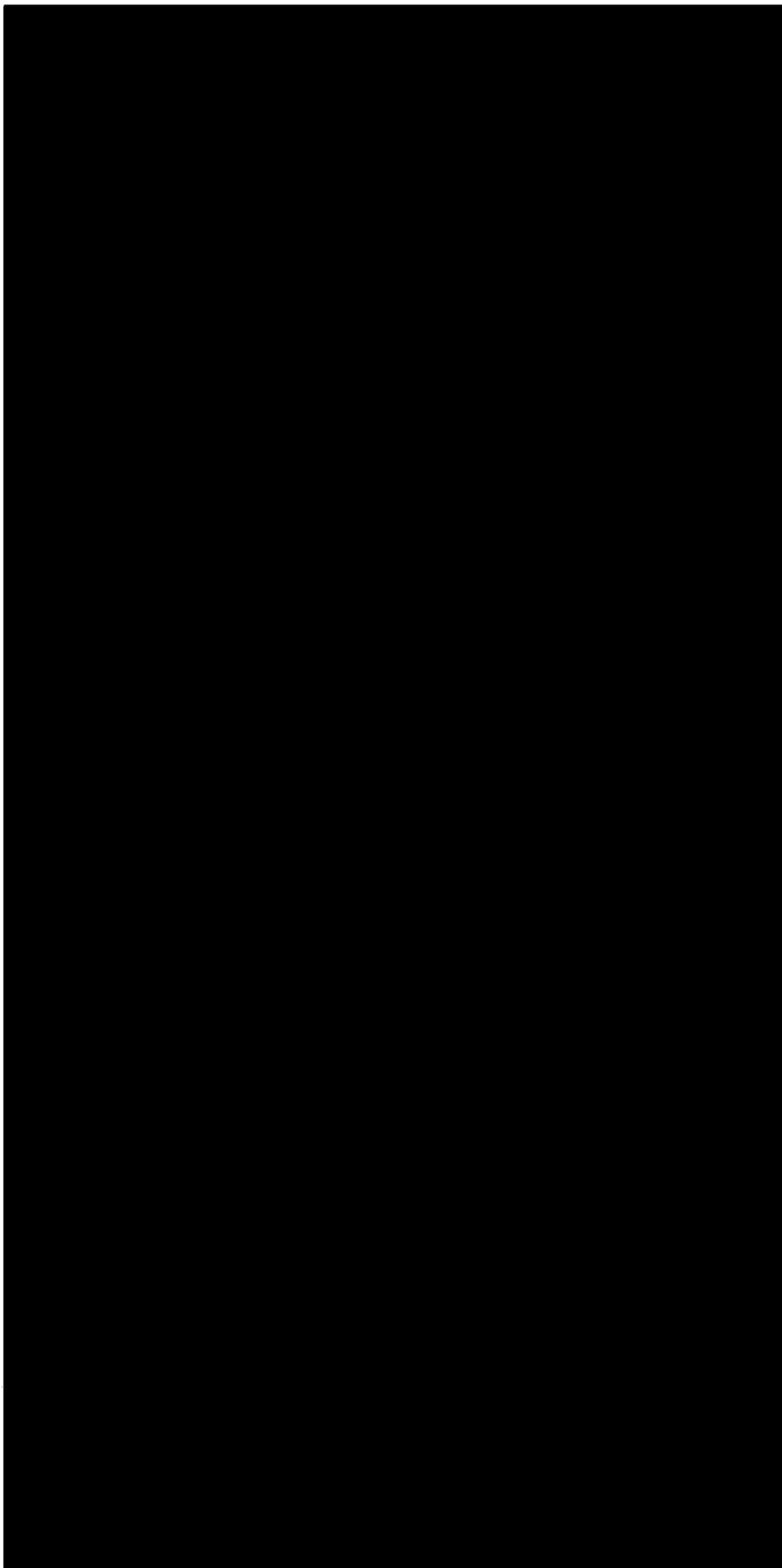
Wave 4 - MSCA - Payment Schedule



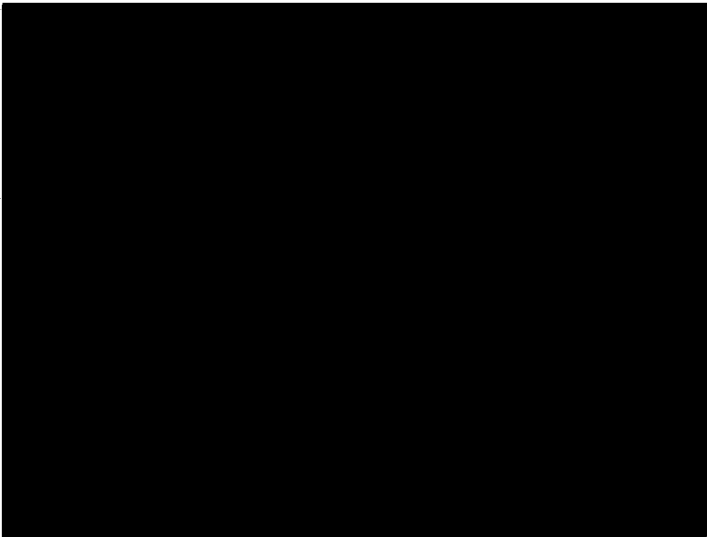
Annual Gap Software Maintenance Payments



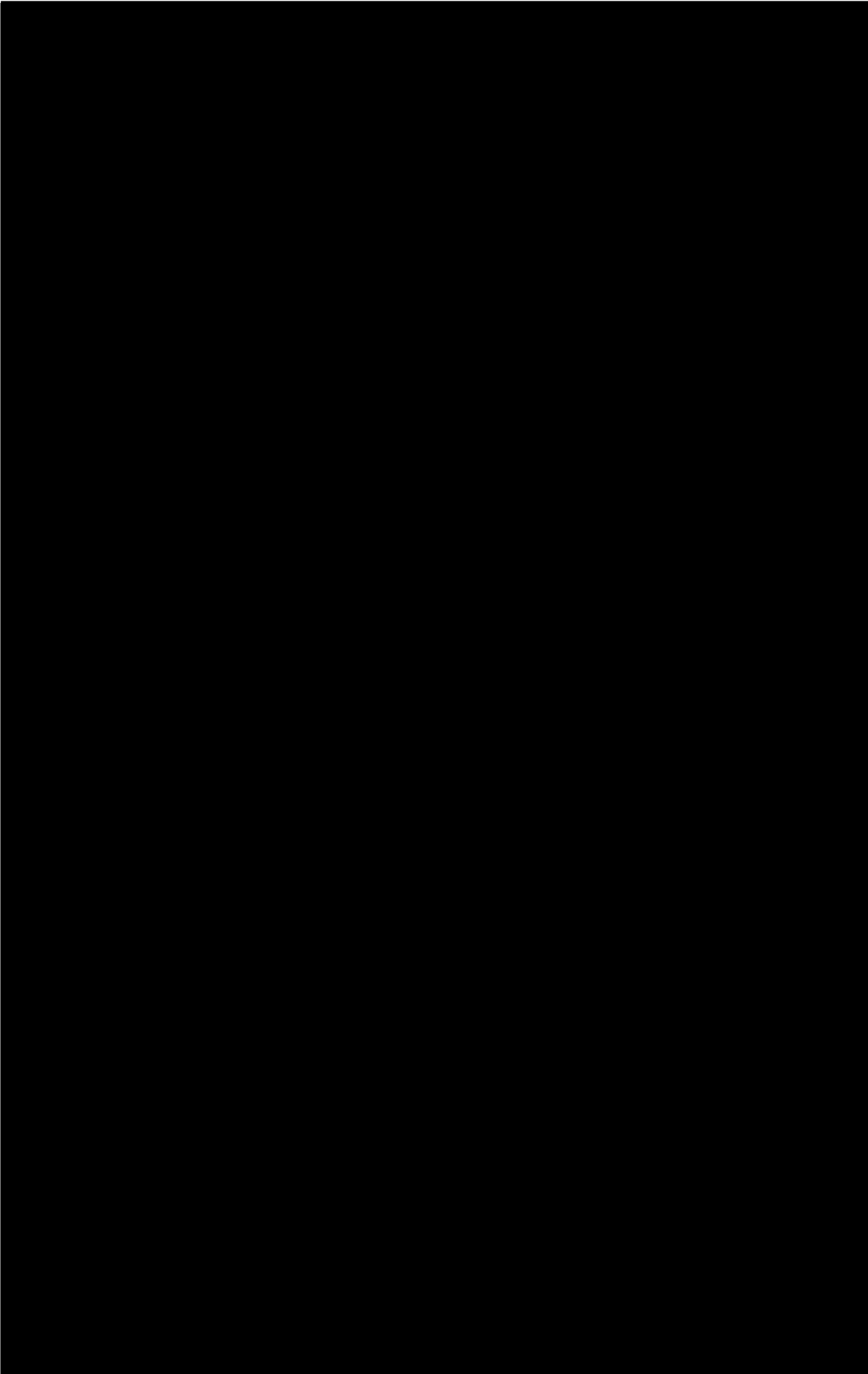
Wave 4 - Real Estate/Property - Payment Schedule



Annual Gap Software Maintenance Payments



HIPAA Option Monthly Fees



SCHEDULE 3

FEEES

September 15, 2015

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APPENDICES

Appendix 3-1	Estimated Travel Expenses
Appendix 3-2	Termination for Convenience Fees (Pricing Tables) - attached to each applicable SOW
Appendix 3-3	Baselines (Pricing Tables) - attached to each applicable SOW
Appendix 3-4	Fees (Pricing Tables) - attached to each applicable SOW
Appendix 3-5	Personnel Rates (Pricing Tables)
Appendix 3-6	[Reserved]
Appendix 3-7	Resource Unit Definitions - attached to each applicable SOW

1. INTRODUCTION

1.1 General.

1.1.1 This Schedule 3 lists all of the Fees and describes how such Fees are to be calculated. For purposes of clarity, this Schedule 3 includes all Fees billable by and payable to Provider.

1.1.2 Provider will bill all Fees to the County in accordance with Section 4 of this Schedule 3.

1.1.3 Provider specifically acknowledges and agrees that, when aggregated with Pass-Through Expenses, the Fees (excluding any applicable taxes) fully compensate Provider for all Services performed under this Agreement and for all of the resources used in providing the Services. Accordingly, not all of the Provider's activities, functions, responsibilities, services and/or tasks carry specific charges.

1.1.4 The Fees shall include all incidental expenses (such as, for example, document reproduction and document shipping) that Provider incurs in performing the Services. Accordingly, all incidental expenses shall be for Provider's account and shall not be separately reimbursable by the County unless approved in advance by the County.

1.1.5 An estimate of the travel-related expenses expected to be incurred by Provider in connection with the performance of the Services during each year of the Term is set forth in Appendix 3-1 (Estimated Travel Expenses). Notwithstanding such estimates, travel-related expenses shall be separately reimbursable as actually expended, at Provider's cost with no mark-up or surcharge. Such expenses will be incurred in accordance with the County's then-current travel guidelines as communicated by the County to Provider. If the County does not provide its own guidelines, the Provider shall use its own guidelines which will be supplied to the County upon request. Any such incidental expenses or travel-related expenses must be submitted to the County consistent with the requirements set forth in the County's then-current expense reimbursement policy (e.g., including copies of underlying receipts).

1.1.6 Provider will not be entitled to unilaterally collect any additional amounts, fees or charges under the Agreement, or to establish any new types of fees or charges under the Agreement, or to modify any fees, charges or rates under the Agreement. Moreover, there shall be no changes to the Fees other than with respect to (a) the additional charges (if any) attributable to Projects, New Services and Exit Assistance Services, (b) the equitable adjustment of Fees (if any) resulting from the replacement, reduction or termination of any Services (as set forth in this Agreement); and/or (c) amendments to the Services agreed to in writing by the Parties. Changes to the Services that do not meet the definition of Projects or New Services shall not result in any changes to the Fees unless agreed to in advance and in writing by the County.

1.2 Terminated Services. If the County terminates or reduces all or any portion of the Services to be provided hereunder in accordance with the provisions of the Terms and Conditions, then subject to mutual agreement the Fees relating to such terminated Services shall

be appropriately reduced, and such reduction shall apply as of the applicable Services termination date(s).

1.3 Currency. All Fees will be invoiced in U.S. dollars. None of the Fees will be subject to any adjustment for foreign exchange fluctuations.

1.4 Fees Schedule. This Schedule 3 is solely a pricing document. Notwithstanding anything to the contrary herein contained, nothing in this Schedule 3 shall in any way establish or limit the scope of Provider's obligation to provide the Services otherwise required of it under the Agreement. If a service, function or task is described in the Agreement and no specific charge is provided in this Schedule 3 for such service, function or task, Provider shall be required to provide the service, function or task without additional charge. Provider specifically acknowledges and agrees that the Fees are intended to fully compensate Provider for all Services performed under this Agreement and for all of the resources used in providing the Services.

2. RESOURCE UNITS, BASELINES AND MEASUREMENT

2.1 Resource Units. "Resource Units" or "RUs" are, for each applicable Service, a unit of resource for which the County and Provider have established a fixed price and a Baseline. The fixed price amount and Baseline for each Resource Unit is set forth in Appendix 3-3 (Baselines – Pricing Tables) of each applicable SOW. The definition and measurement interval for each type of Resource Unit is set forth in Appendix 3-7 (Resource Unit Definitions) of each applicable SOW.

2.2 Resource Unit Measurement and Reporting. For each applicable Service, Provider will (a) measure, track, and retain measurement data in a repository for a minimum of 12 months, and (b) validate and report on the County's usage of Resource Units for each Resource Unit identified in this Schedule 3, in each case utilizing the processes and procedures in the Standards and Procedures Manual. Provider will not change the measurement processes and procedures without prior written approval from the County, which approval will not be unreasonably withheld. Resource Unit measurement processes and procedures may be updated by Provider from time-to-time, subject to the County's prior written approval, and Provider will not otherwise alter its measurement process, procedures, data measurement, data collection or reporting without the County's prior written approval. Provider shall provide the County with ongoing reporting of actual Resource Unit usage by Resource Unit on a monthly basis (or such other measurement period as may be agreed upon) after the applicable Service Handover Date.

2.3 Resource Unit Measurement Validation.

2.3.1 Prior to the applicable Service Handover Date, the County and Provider will review the Measurement Tools, processes and resulting data to ensure such Measurement Tools and processes are appropriate, accurate and produce consistent data for all Resource Units required to be measured under this Agreement. The County will have the right to access the Measurement Tools and the data produced. At its own cost, the County will also have the right to implement and utilize its own Measurement Tools as a means to validate the measurement usage data. The County and Provider will conduct an ongoing validation process to ensure that the Measurement Tools and

processes remain accurate and produce valid data. Any changes to the Measurement Tools and/or processes require the express written approval of the County. For the sake of clarity, County acknowledges and agrees that for the cloud-based Services Provider uses measurement tools and processes as part of the infrastructure which is used across the entire portfolio of customers. Accordingly such tools and processes are not subject to approval nor will the County have the right to access those tools and processes. The County may implement and utilize its own Measurement tools as long as such Measurement Tools do not impact in any way Provider performance of the services.

2.3.2 The “Baseline” for each Resource Unit and each Service as of the Effective Date are set forth in Appendix 3-3 (Baselines), and shall be subject to any adjustments pursuant to this Schedule 3.

2.3.3 On an annual basis, within thirty (30) days following each anniversary of the Effective Date, the County and Provider will review the Measurement Tools, processes and resulting data from the previous twelve (12) month period to ensure that such Measurement Tools and processes are accurate and producing valid and consistent data. The Measurement Tools, processes and procedures will be updated, such that the Standards and Procedures Manual will accurately reflect the current Measurement Tools and processes upon which the Parties have mutually agreed.

3. FEES

3.1 Services. The Fees for the Services consist of Deliverables Fees, Base Fees, Transition Fees, New Services Fees, and Additional Exit Assistance Fees, which, as applicable, are described in this Section 3, Appendix 3-4 (Fees – Pricing Tables) and Appendix 3-5 (Personnel Rates). Each Statement of Work shall describe the type of Fees applicable to the Services to be provided thereunder.

3.2 Deliverables Fees. “Deliverables Fees” are fixed fees that become payable upon the occurrence of a particular event such as acceptance of a completed delivery or completion of a specific milestone as described in Appendix 3-4 (Fees) of the applicable SOW.

3.3 Base Fees. “Base Fees” are the recurring, fixed fees for Provider’s provision of the Services as described in Appendix 3-4 (Fees) of the applicable SOW. Except as otherwise agreed to by the Parties in an applicable Statement of Work, the Base Fees include all variable and fixed cost components of Provider’s charges for the Baseline volumes of Resource Units, and any startup costs and management fees associated with the Resource Units. In the event the Base Fees for a particular SOW are subject to adjustment on the basis of the addition or removal of Resource Units from the Services, the applicable SOW will provide a mutually agreed mechanism for additional resource charges or reduced resource credits.

3.4 New Services Fees. “New Services Fees” are the fees for such New Services or Projects as the Parties may enter into pursuant to the Change Control Process set forth in Schedule 1 – Relationship Management. The Fees shall be equitably adjusted to reflect the replacement of any pre-existing Service by the New Services.

3.5 Additional Exit Assistance Fees. Exit Assistance Services that are either new or require additional charges, if any, will result in Additional Exit Assistance Fees as set forth in Section 1.4 of Attachment E (Exit Assistance).

4. INVOICING

4.1 General.

4.1.1 Provider shall invoice the County for:

(a) Deliverables Fees based on the schedule in the applicable SOW with a separate invoice to be issued for each Deliverable Fee;

(b) the Base Fees for Application Managed Services for the three months of each fiscal quarter, forty-five (45) days prior to the beginning of the fiscal quarter in which the applicable Services are to be provided; provided however that the invoice for Services to be delivered in the first quarter of fiscal year 2016 shall be delivered at the beginning of such quarter;

(c) the Base Fees for Cloud Managed Services monthly in advance;
and

(d) all other Fees on a monthly basis in arrears no later than ten (10) days after the end of such calendar month.

4.1.2 Each invoice will detail the calculation of all Fees, Pass-Through Expenses and any other amounts included on such invoice, including itemized entries indicating the date or time period in which the Services were provided, the amount of time spent performing the Services for time and materials-based Fees, and a detailed description of the Services provided during the period of the invoice. All invoices shall reflect the amounts invoiced by and the amounts paid to Provider as of the date of the invoice. Invoices for new charges shall not include “past due” amounts, if any, which amounts must be set forth on a separate invoice. Provider shall not be entitled to invoice the County for any late fees or other penalties.

4.1.3 Each invoice shall be submitted together with a properly completed County Voucher form (29A).

4.1.4 Provider shall maintain complete and accurate records of, and supporting documentation for, the amounts billed to and payments made hereunder, in accordance with GAAP applied on a consistent basis.

4.1.5 If applicable, Provider shall provide the County with information and data detailing its use of Resource Units used to calculate the Fees. Such information and data, as well as Provider’s invoices, shall be in the format and level of detail reasonably required by the County and shall be sufficient to enable the County to validate Provider’s invoices.

4.1.6 Except with respect to any Services for which the Parties have agreed to extend payments over time, Provider must invoice the County for Services provided within one hundred eighty (180) days after performance of Services or Acceptance of the Deliverable, as applicable. The County will not be obligated to pay for any Services invoiced after such period. Provider acknowledges its duty to ensure the accuracy of all invoices submitted to the County for payment. By submitting an invoice, Provider certifies that all itemized entries set forth in the invoices are true and correct. Provider acknowledges that by submitting an invoice, it certifies that it has properly performed the Services as set forth in this Agreement. Provider acknowledges that any inaccurate statements or negligent or intentional misrepresentations in the invoices may result in the County exercising all remedies available to it in law and equity including, but not limited to, a delay in payment or non-payment to Provider, and reporting the matter to the Cook County Office of the Independent Inspector General.

4.2 Proration. The Base Fees for any billing period of less than a calendar month shall be prorated.

5. PAYMENT

5.1 General. Each Provider invoice that has been properly submitted in accordance with this Section 5.1 shall be due and payable forty-five (45) days after receipt thereof by the County. An invoice will not be considered properly submitted under this Section 5.1 unless and until Provider has provided supporting details for the invoice as reasonably required by the County including, with respect to Services billed or accounted for on the basis of time expended (e.g., time and materials work or Minority Enhancements that are tracked on the basis of hours capacity). Provider shall make all backup and supporting information available to the County upon request.

5.2 Set-Off. In accordance with Section 34-177 of the Cook County Procurement Code, the County shall have a right to set off and subtract from any invoice a sum equal to any fines and penalties, including interest, for any tax or fee delinquency and any debt or obligation owed by Provider to the County under this Agreement. Alternatively, the County may elect to invoice Provider for such reimbursements, in which case such reimbursements are payable within thirty (30) days after Provider's receipt of the invoice from the County.

5.3 Disputed Fees. The County may in good faith (and within one hundred and eighty (180) days of receiving the invoice in question) dispute any charge appearing on a Provider invoice, even if it has already paid such charge. Moreover, the County may withhold the portion of any payment of any Fees which the County disputes in good faith, subject to the limitations set forth in Section 15.3 of the Terms and Conditions. The County may also withhold payments of amounts for which the invoices are not submitted in accordance with the requirements of the Agreement (e.g., they fail to contain sufficient information to permit verification or processing). If it is ultimately determined that amounts withheld by the County in accordance with this Section 5.3 should have been paid, the County shall promptly pay the amount due. If an overpayment is determined, Provider shall, at the County's election, either (a) promptly refund the amount of the overpayment; or (b) credit the amount of the overpayment in the next succeeding invoice.

5.4 Provider Credits. To the extent the Provider gives credits toward future purchases of goods or services, financial incentives, discounts, value points or other benefits based on the purchase of the Services provided for under this Contract, such credits belong to the County and not any specific department. Provider shall reflect any such credits on its invoices and in the amounts it invoices the County.

5.5 Subcontractors. When Provider receives any payment from the County for any Services it has provided to the County pursuant to its Agreement, Provider must make payment to its Subcontractors in accordance with the terms of its Subcontract agreements within fifteen (15) days after receipt of payment from the County, provided that such Subcontractor has satisfactorily provided the Services in accordance with this Agreement and provided Provider with all of the documents and information required of Provider. Provider may delay or postpone payment to a Subcontractor when the Subcontractor's Services do not comply with the requirements of this Agreement, or when Provider is acting in good faith and not in retaliation for a Subcontractor exercising legal or contractual rights.

6. TAXES

6.1 General. Each Party shall be responsible for (a) any personal property taxes on property it owns or leases, (b) employment taxes of its own employees, (c) taxes based on its net income or gross receipts, and (d) other taxes incurred by such Party in the course of performing or receiving the Services.

6.2 Provider Obligations. Provider will be responsible for any national, state and local sales, use, excise, *ad valorem*, value-added, services, consumption, and other taxes and duties on any goods or services used or consumed by it in providing the Services. Provider will separately itemize on its invoice to the County any taxes that, under Section 6.1, are the responsibility of the County. With respect to such taxes, Provider will be responsible for the timely filing of returns and the timely remittal of the tax. To the extent Provider fails to remit any tax to a taxing authority as provided in this Section 6 and such failure gives rise to the payment of additional taxes, interest and penalties, then Provider will bear such additional taxes and interest or penalties.

6.2.1 Refunds. Provider shall promptly refund to the County any taxes previously paid by the County which Provider recovers from taxing authorities. In the event that the County suffers any Indemnifiable Losses arising out of the failure by Provider to accurately and on a timely basis report or remit such taxes to such taxing authority, Provider shall pay the County's actual direct expense of defending against any such claim, excluding profit and overhead and, in accordance with Section 12.1 of the Terms and Conditions (Indemnification by Provider), indemnify and hold the County harmless from any Indemnifiable Losses in connection therewith.

6.2.2 Separate Payments. The Parties shall cooperate to segregate the payments under this Agreement and each Statement of Work into the following separate payment streams: (a) those for taxable Services; (b) those for non- taxable Services; and (c) those for reimbursable expenses. Provider shall not collect or include in its invoices any

Service taxes for which the County has furnished a properly executed and valid exemption certificate or direct pay permit.

6.2.3 Tax Records. Provider shall provide to the County, upon reasonable demand, tax records and supporting documentation sufficient to document the computation and allocation of taxes for which the County is responsible under this Section 6. Provider shall retain records and supporting documentation sufficient to document the computation and allocation of taxes pursuant to this Section 6 for a period of eight (8) years after the date of such computation and allocation or such longer period of time required by Law.

6.2.4 Cooperation. The Parties shall reasonably cooperate with each other to more accurately determine each Party's tax liability and to minimize such liability to the extent legally permissible. The County and Provider shall provide and make available to the other any resale certificates, withholding tax certificates, information regarding out-of-state sales or use of equipment, materials or services, and other exemption certificates or information reasonably requested by either Party.

6.3 County Obligations. The County will be responsible for any national, state and local sales, use, excise, ad valorem, value-added, and other similar taxes and duties imposed on the County for the receipt of the Services under the federal, state and local laws and regulations of the United States or any other country in which the County receives the Services. Notwithstanding the foregoing, Federal Excise Tax does not apply to materials purchased by the County by virtue of Exemption Certificate No. 36-75-0038K. Illinois Retailers' Occupation Tax, Use Tax and Municipal Retailers' Occupation Tax do not apply to deliverables, materials or services purchased by the County by virtue of statute. The County's State of Illinois Sales Tax Exemption Identification No. is E-9998-2013-05.

6.4 Payments of Net Withholding Tax. The County reserves the right, in its discretion, to withhold from payments made to Provider or any of its Affiliates under this Agreement or a Statement of Work, any applicable withholding taxes as required under the laws or regulations of governmental authorities within or without the United States. Pursuant to this reserved right, the County shall withhold United States withholding taxes at the applicable tax rate under the Internal Revenue Code and Treasury regulations unless the County has received documentation from Provider or such Affiliate establishing that the payment is subject to a reduced rate of withholding or is exempt from withholding. For the avoidance of doubt, any claim for such exemption or reduced treaty rate under the laws of the United States must be documented on a United States Form W-8 to be provided by Provider or such Affiliate to the County. In the event the County is required, as a result of audit adjustments or otherwise, to pay additional amounts of withholding taxes or interest, the County will promptly pay such amounts. The Parties agree that the County shall be entitled to offset future payments to Provider or any Affiliate under this Agreement or any Statement of Work by such additional withholding taxes. The County shall promptly provide Provider any necessary certificate or proof of payment of such withholding tax to the tax authorities and reasonably co-operate with Provider to claim any applicable refunds or adjustments from tax authorities. If the County becomes liable for any such additional withholding taxes or interest or penalties, after the date on which this Agreement is terminated, or if the entire amount of such additional withholding taxes or interest by the

County have not been utilized, as of the date this Agreement is terminated, to offset payments due to Provider or its Affiliates, Provider agrees to indemnify the County against any Losses related to such additional withholding taxes or interest or penalties pursuant to Section 12.1 of the Terms and Conditions (Indemnification by Provider).

[End of Schedule 3]

Estimated Travel by Contract Year

Initial Term	
Contract Year 1	\$1,090,354
Contract Year 2	\$1,375,285
Contract Year 3	\$521,861
Contract Year 4	\$48,000
Contract Year 5	\$48,000

Renewal Term	
Contract Year 6	\$48,000
Contract Year 7	\$48,000
Contract Year 8	\$48,000
Contract Year 9	\$48,000
Contract Year 10	\$48,000

APPENDIX 3-2
TERMINATION FOR CONVENIENCE FEES (PRICING TABLES)

September 15, 2015

1. TERMINATION FOR CONVENIENCE FEES (PRICING TABLES)

The Termination for Convenience Fees are set forth in each Statement of Work.

[End of Appendix 3-2]

APPENDIX 3-3
BASELINES (PRICING TABLES)

September 15, 2015

1. BASELINES (PRICING TABLES)

The Baselines are set forth in each Statement of Work.

[End of Appendix 3-3]

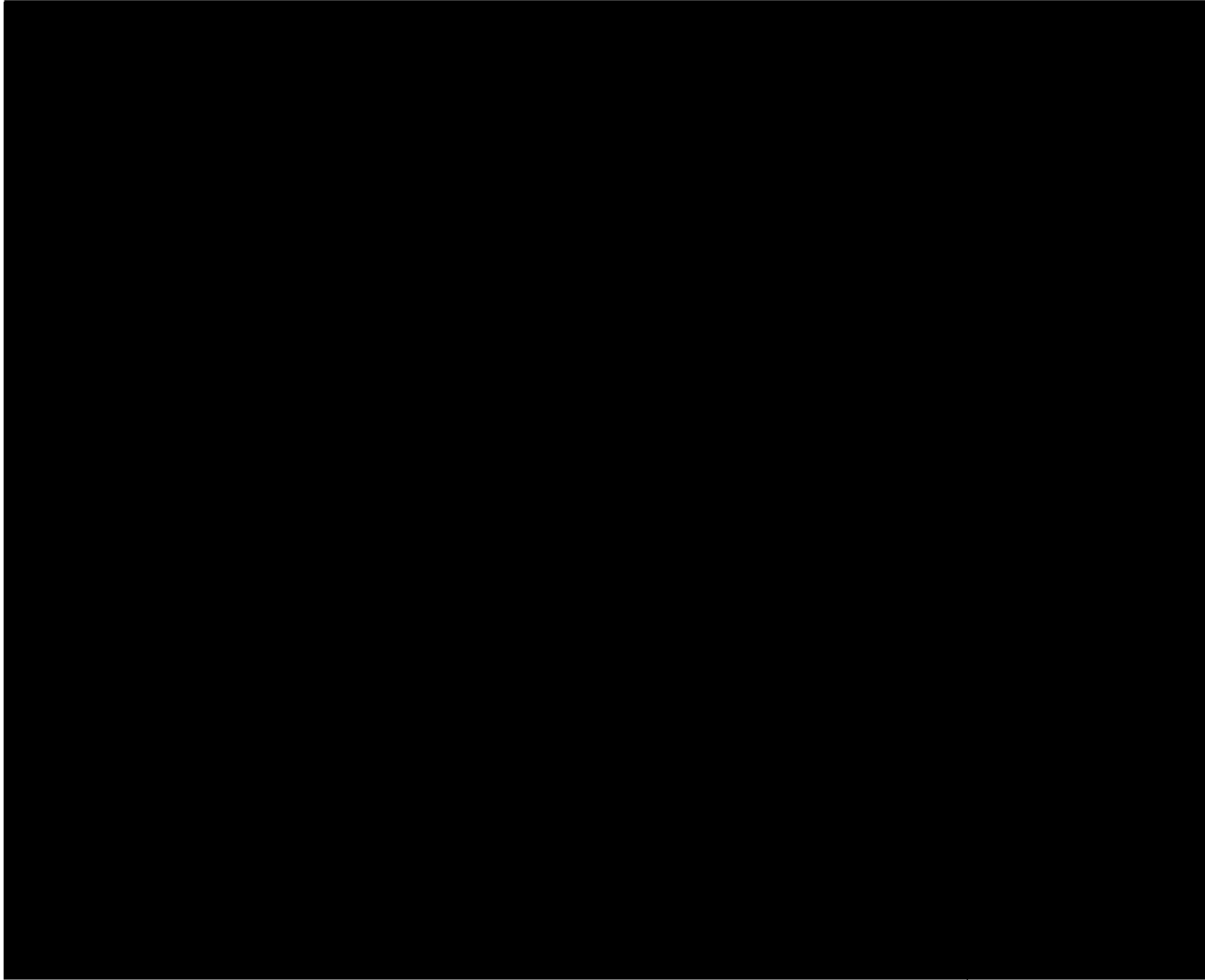
APPENDIX 3-4
FEES (PRICING TABLES)

September 15, 2015

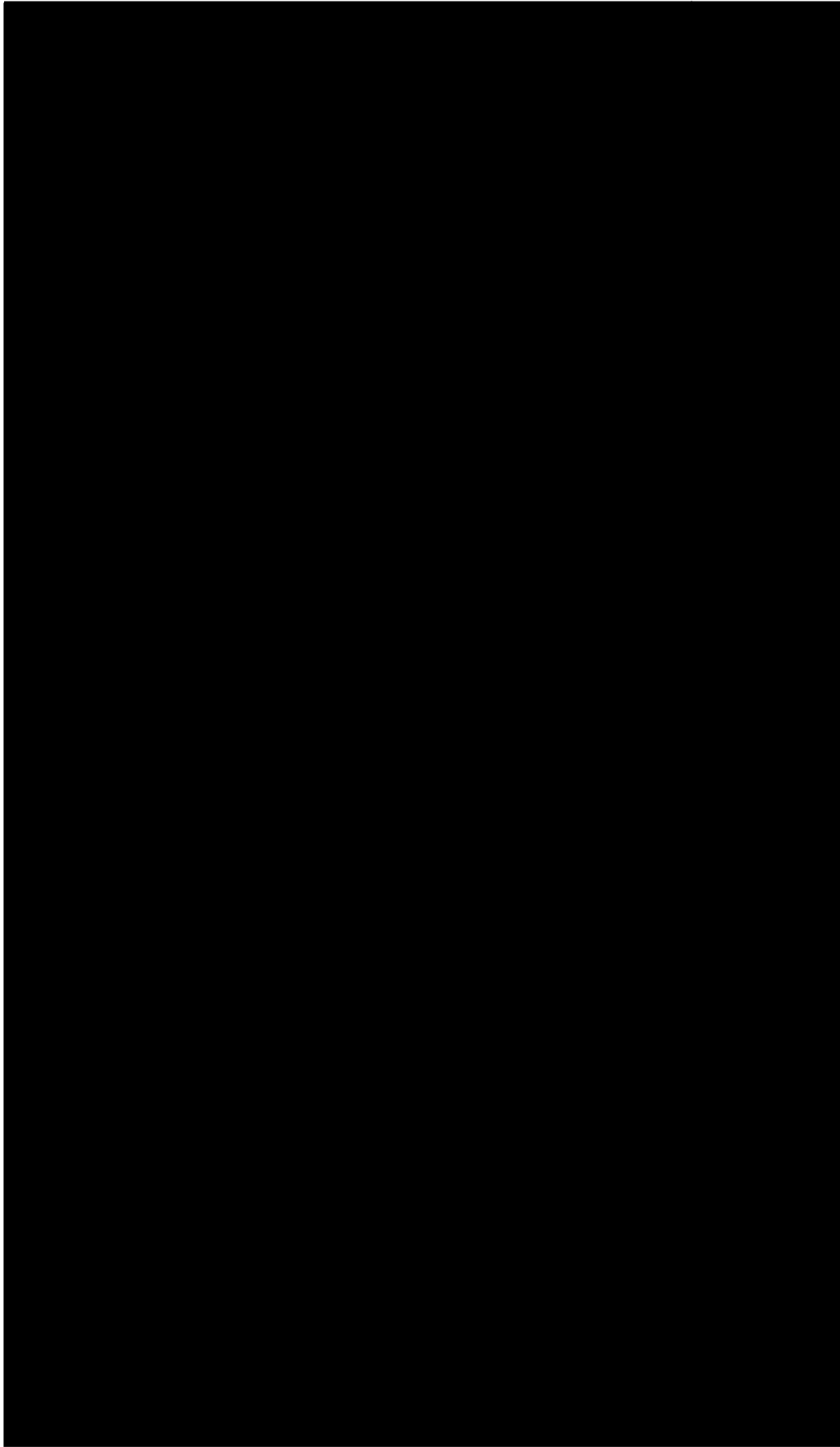
1. FEES (PRICING TABLES)

The Fees are set forth in each Statement of Work.

[End of Appendix 3-4]



Application Managed Services Personnel Rates



APPENDIX 3-6

RESERVED

September 15, 2015

APPENDIX 3-7

RESOURCE UNIT DEFINITIONS

September 15, 2015

1. RESOURCE UNIT DEFINITIONS

The Resource Unit Definitions are set forth in each Statement of Work.

[End of Appendix 3-7]

SCHEDULE 4

SERVICE LEVEL AGREEMENTS AND FEE REDUCTIONS

September 15, 2015

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APPENDICES

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1. INTRODUCTION

This Schedule 4 and its appendices set out the Service Level Agreements (“SLAs”), and Key Performance Indicators (“KPIs”) that shall apply during the Term to measure Provider’s performance of the Services. This Schedule 4 also sets forth the rules for calculating any Fee Reductions that may apply if Provider fails to perform the Services in accordance with certain applicable SLAs in connection with its performance of the Services.

1.1. Effective Date of SLAs and KPIs.

1.1.1. The “Baseline Period” will be (a) the first six (6) months following the first Go-Live, and (b) three (3) months following each subsequent Go-Live.

1.1.2. Provider shall perform each of the Services in accordance with the SLAs and shall measure and report on its performance against the SLAs and KPIs commencing with respect to each Application, the first calendar month following the end of the Baseline Period for such Application

1.2. Key Performance Indicators. Appendix 4-2 (Key Performance Indicators) sets forth certain “Key Performance Indicators” that represent service level measurements that are important to the County and on which Provider shall measure and report, but that do not constitute Service Level Agreements as of the Effective Date. Provider shall measure and report on its performance against the KPIs in the same manner as it reports on performance against Service Level Agreements from and after the applicable Service Go-Live. Provider shall use Commercially Reasonable Efforts to achieve all KPIs from and after the applicable Service Go-Live through the end of the Term. KPIs may be added or deleted during the Term by mutual agreement of the Parties and shall otherwise be treated in all respects in the same manner as Service Level Agreements in accordance with this Schedule 4 except that Failures with respect to KPIs shall not result in Fee Reductions.

1.3. Active Management.

1.3.1. During the Baseline Period, Provider will monitor the performance of the applicable Services against their respective SLAs and KPIs and will meet with the County twice per month to review the results, the trending of the Providers performance against the SLAs and KPIs, and any adjustments with respect to Provider Personnel and/or Provider’s processes that have been taken (or may need to be taken) in order for Provider to close any gap in its performance against the SLAs and KPIs.

1.3.2. During the Baseline Period for each respective Wave, if Provider fails to meet the applicable Baseline SLA, Provider will look for actions to support ongoing improvement. These may include process handling, technical training, or both. The status of these actions will be reviewed in the twice per month meeting.

1.3.3. At the conclusion of each Baseline period, the SLAs and KPIs set forth Appendix 4-1 and Appendix 4-2 will become fully effective for the applicable Services.

1.4. Performance Standards Provider shall perform the Services promptly, using reasonable skill and care, in a professional and workmanlike manner, and in accordance with any other Performance Standards specified in the Agreement.

2. PERFORMANCE AGAINST SERVICE LEVEL AGREEMENTS

2.1. Measurement.

2.1.1. Except as otherwise specifically provided herein, Provider shall be responsible for monitoring its performance against the SLAs and KPIs on a continuous basis, and for measuring and reporting on its performance as required to apply and verify its compliance with the SLAs and KPIs. The obligations in the preceding sentence with respect to any Services shall apply at all times following the applicable Go-Live date even if the applicable SLA or KPI is not then applicable or is otherwise excused. In this regard, Provider shall be responsible for the provision, installation and support at its own expense of any automated tools required or appropriate for such purpose (other than any the County-Provided Software already in use as of the applicable Service Go-Live and intended by the Parties to be used by Provider in connection with the performance of the Services).

2.1.2. Except as otherwise specifically provided herein, Provider shall implement SLA and KPI measurement systems and document such systems as part of the Standards and Procedures Manual. Except as otherwise specifically provided herein, all measurement systems and measurement tools must be approved in advance by the County, which approval shall not be unreasonably withheld or delayed. Such systems and tools shall, among other things, require Provider to track, record, and report at least the following information regarding any Failure:

- (a) the nature of the Failure;
- (b) the specific Service or Services that are impacted;
- (c) the start time and date of all Failures;
- (d) the time and date upon which Service is fully restored;
- (e) the cause of the Incident(s) that gave rise to the Failure (including the result of any Root Cause Analysis required to be performed under this Agreement); and
- (f) a summary of the steps Provider has taken to determine the root cause of the Incident(s) that gave rise to the Failure, to the extent that Root Cause Analysis is required pursuant to Section 2.2.2 hereunder, or such other efforts as may have been taken to determine the cause, the steps Provider has taken to restore the affected Service, and the steps Provider has taken to reduce, to the extent reasonably possible, the likelihood that such Failure shall be repeated.

2.1.3. Except as otherwise specifically provided herein, Provider shall maintain all data relating to and supporting the measurement of its performance, including performance against SLAs and KPIs, in sufficient detail to permit a “bottom up” calculation, analysis and reconstruction of performance reports (including all inclusion and exclusion calculations) throughout the Term and for a minimum of three (3) years following the Term. Such data shall be made available to the County in an electronic format reasonably acceptable to the County upon reasonable request and upon the expiration or termination of this Agreement.

2.2. Actions on Failure to Achieve an SLA. In respect of any Failure to achieve an SLA, Provider shall:

2.2.1. minimize the impact of the underlying Incidents that led to the Failure and correct them;

2.2.2. investigate, assemble and preserve pertinent information with respect to, and report on the causes of, the Failure, including performing an appropriate Root Cause Analysis with respect to Incident(s) that led to such Failure; and

2.2.3. advise the County, as requested, of the status of remedial efforts being undertaken to prevent the future occurrence of such Failure. In this respect, Provider shall track the status of such remedial efforts and make available such progress information to the County in accordance with the Problem management Services set forth in the applicable Statement of Work.

2.3. Reporting.

2.3.1. Commencing with the first full calendar month following the first Service Go-Live, Provider shall issue monthly SLA Reports within ten (10) Business Days after the end of each month during the Term.

2.3.2. If, with respect to any specific SLA for any particular month, Provider fails to monitor, measure or report its performance against such SLA, Provider shall be deemed to have failed such SLA for such month.

2.3.3. As part of the monthly SLA Report required pursuant to Section 2.3.1, Provider shall provide the County with a set of reports, in an electronic format reasonably acceptable to the County, on Provider’s performance against the SLAs and KPIs. Detailed supporting information for each SLA Report shall be provided to the County in an electronic format specified by the County, as reasonably requested by the County.

3. FEE REDUCTIONS

3.1. Nature of Fee Reductions.

3.1.1. The Parties each acknowledge and agree that the Fee Reductions for Failures:

(a) constitute a price adjustment to reflect the reduced level of Service performed by Provider; and

(b) do not constitute: (i) an estimate of the loss or damage that may be suffered by the County as a result of a Failure, (ii) penalties, or (iii) liquidated damages.

3.1.2. Payment of a Fee Reduction by Provider is without prejudice to, and shall not limit, any right the County may have:

(a) to damages or non-monetary remedies at law or in equity resulting from, or otherwise arising in respect of, such Failure; or

(b) to terminate the Agreement for cause in respect of such Failure.

3.1.3. Any claim for damages resulting from a Failure in respect of which a Fee Reduction has already been paid shall be reduced by the amount of that Fee Reduction.

3.2. Weighting Factors.

3.2.1. The allocation of Weighting Factors as of the Effective Date is set out in Appendix 4-1 (Service Level Agreements). Following the Effective Date, the County may change such allocation in accordance with Section 3.2.2.

(a) The aggregate Weighting Factors applied by the County to all of the SLAs may not exceed (200%) two hundred percentage points for any applicable calendar month.

(b) The Weighting Factor applied by the County against a single SLA may not exceed thirty-five (35) percentage points.

(c) At Risk Amount for the Application Managed Services is five percent (5%) of the monthly Fees for Application Managed Services.

3.2.2. Subject to Sections 3.1.1(a) and 3.2.1(b), the County may change the allocation of Weighting Factors to the SLAs by giving written notice to Provider, with each such change effective on the first day of the first calendar month that begins thirty (30) or more days after the date the notice is given. The County may give only one (1) such notice in any calendar quarter, although there shall be no limit on the number of changes made in any one (1) notice.

3.3. Calculation of Fee Reductions for Failure to Achieve an SLA.

3.3.1. For each Failure occurring during the Term that relates to an SLA for which Weighting Factor points are assigned, the Fees for the month following the month in which the Failure occurred shall be reduced by an amount equal to the applicable Fee Reduction, which shall be computed as follows:

$$\text{Fee Reduction} = A \times B \times C$$

Where:

A = Weighting Factor associated with SLA for which the Failure occurred.

B = At Risk Amount (percentage).

C = Monthly invoice amount applicable to the Application Managed Services for month in which the Failure occurred.

3.3.2. In no event shall the total amount of Fee Reductions payable to the County for any month under this Section 3.3 exceed the Amount at Risk.

3.3.3. By way of illustration, but not in limitation of the foregoing, the following examples of Fee Reductions calculations are provided. For simplicity, each example uses hypothetical Fees for the applicable month of \$100,000, and amount as-risk is 5% of the monthly invoice amount:

(a) Example: Provider fails to meet the Service Level target for an SLA with a Weighting Factor of 25. The Service Level Credit due to County for such Service Level default would be computed as the follows

(i) A = Weighting Factor is 25%

(ii) Multiplied by

(iii) B = At-Risk Amount is 5%

(iv) Multiplied by

(v) C = \$100,000 (Provider monthly invoice amount for the month during which the Service Level default occurred).

(vi) = \$1,250 (the amount of the Service Level credit)

3.3.4. The following will apply:

(a) If more than one Service Level default occurs in a single month, the sum of the corresponding Service Level credits shall be credited to County.

(b) In no event shall the amount of Service Level credits to County with respect to all Service Level defaults occurring in a single month exceed, in total, the At-Risk Amount

(c) Service Level credits for any Application will not apply until after the Baseline Period is complete for such Application.

3.4. Double Jeopardy. If Provider demonstrates that: (a) a single triggering event directly causes Failures to achieve two (2) or more SLAs; and (b) but for such single triggering event, none of such Failures would have occurred, then the County shall be entitled to receive only a single Fee Reduction for such month (selected by the County) with respect to such Failures, and Fee Reductions shall not apply to such other Failures as were caused by such common triggering event.

3.5. Consecutive SLA Failures. If Provider experiences a Failure of the same SLA for a second (2nd) consecutive Measurement Interval, the Fee Reduction for such second and each subsequent consecutive Failure shall be one hundred twenty-five percent (125%) of the amount computed pursuant to Section 3.3 above, subject at all times to the total Amount At Risk limitations set forth in Section 3.3.2.

3.6. Excused Failure.

3.6.1. Where Provider can establish to the reasonable satisfaction of the County that:

(a) the cause of a Failure to achieve an SLA was a factor outside of the reasonable control of Provider (including the County's failure to complete a County Responsibility or a bug in the Oracle Software products); or

(b) the cause of the a Failure to achieve an SLA was due to periods of emergency maintenance activities required by third party manufacturers or software providers; or

(c) the cause of a Failure to achieve an SLA was due to County's performance of any technical security integrity review, penetration test or vulnerability scan pursuant to security obligations,

and, in each of the cases above:

(d) Provider would have achieved such SLA but for such factor; and,

(e) Provider used Commercially Reasonable Efforts (within the scope of Provider's responsibilities hereunder) to perform and achieve such SLA notwithstanding the presence and impact of such factor; and,

(f) Provider is without material fault in causing such factor.

then no Fee Reduction shall be assessed against Provider for any resulting Failure and Provider shall otherwise be excused from achieving such SLA or for as long as (x) the circumstances relating to such factor and preventing achievement of such SLA prevail, and (y) Provider continues to use its Commercially Reasonable Efforts to prevent, overcome and mitigate the adverse effects of such factor to the extent required to achieve the applicable SLA.

3.6.2. In addition to the foregoing, the County may agree to excuse Provider from such Failure pursuant to Section 7.7.2 of Schedule 1 (Relationship Management),

3.7. Adverse Performance Trends. If, during the course of any Measurement Interval, Provider becomes aware of adverse performance trends (e.g., trends indicating the Provider may not meet an SLA for the month), then Provider will:

3.7.1. promptly notify the County of such adverse performance trends;

3.7.2. promptly prepare corrective action plans to address such adverse performance trends; and

3.7.3. implement such corrective action plans in an effort to avoid a Failure, even though the Measurement Interval has not been completed and, accordingly, there has not yet been a Failure.

3.8. Analysis and Recovery. If Provider fails to meet an SLA, Provider will, as part of the Services, (a) perform Root Cause Analysis to determine the cause of the Failure or adverse performance trends in accordance with Section 2.2 hereof; (b) use Commercially Reasonable Efforts to recover from such Failure or adverse performance trends; (c) develop for the County's review and approval a plan outlining the steps Provider will take to minimize to the extent possible the risk that such Failure or adverse performance trends will reoccur in accordance; and (d) upon the County's approval of such plan, implement such plan as soon as practicable. In addition, Provider will promptly report to the County in writing regarding the cause of the Failure or adverse performance trends and the steps taken by Provider under parts (b) and (d) of this Section 4.9.

3.9. Invoices and Fee Reductions. All Fee Reductions will be calculated on a monthly basis in accordance with the terms of this Schedule 4 and reflected on the next invoice issued to the County for the applicable Services.

4. SERVICE LEVEL AGREEMENT CONSIDERATIONS

4.1. General. This Schedule 4 (Service Level Agreements and Fee Reductions) and its appendices set forth the Service Level Agreements that will apply as of the Effective Date.

4.1.1. The measurements and Service Level Agreements set forth in this Schedule 4 shall be used to measure Provider's performance of the Services. During the Term, new SLAs may be added or substituted by agreement between the Parties in order to achieve a fair, accurate, and consistent measurement of Provider's performance of the Services in accordance with the SOW Change Control Procedure. For example, such additions or substitutions may occur in conjunction with changes to the environment and the introduction of new Applications or means of service delivery; *provided, however*, that where such Applications or means of service delivery replace or upgrade existing technology, there shall be a presumption of equivalent or improved performance.

4.1.2. Except as otherwise specified, all references to (a) hours shall be to actual hours during a calendar day and not to standard Business Day hours and (b) days, months and quarters shall be to calendar days, calendar months and calendar quarters.

4.1.3. With respect to any SLAs or KPIs for which the Performance Target for completing the Service is less than one hundred percent (100%) or with respect to any Incident for which Provider's actual performance falls outside of the Performance Target, Provider shall continue to use Commercially Reasonable Efforts to expeditiously and efficiently complete the performance of such Service even if a failure to do so would not trigger a Failure of the applicable SLA or KPI. By way of example, and not in limitation, of the foregoing, if a particular KPI required Provider to resolve a particular type of Incident within two (2) days' time, and with respect to a particular Incident of such type, the two (2) day target is exceeded and the Incident is not yet resolved, Provider shall continue to use Commercially Reasonable Efforts to expeditiously and efficiently Resolve such Incident even though doing so would not impact Provider's achievement of the applicable KPI.

4.2. Changes in Service Level Agreements. The SLAs that will apply during the Term will be, and will change in accordance with, the following:

4.2.1. For each Service, the applicable SLAs from and after the applicable Service Go-Live shall be as set out in Appendix 4-1 (Service Level Agreements).

4.2.2. Annually, and by agreement of the Parties pursuant to Section 4.1.1, the County and Provider will review the SLAs and will make adjustments to them as appropriate to reflect improved performance capabilities associated with advances in the technology and methods used to perform the Services. The Parties expect and understand that the SLAs will be improved over time.

4.2.3. An ad hoc review of the Service Levels may be requested by either party in the event that either party believes a Service Level is not appropriately reflecting business requirements and/or deviates in a material respect from the party's expectations for the Service Level.

4.3. Compound Service Level Agreements. Those SLAs and KPIs that are identified on Appendix 4-1 (Service Level Agreements) and Appendix 4-2 (Key Performance Indicators) as compound SLAs or KPIs include multiple metrics within each applicable single SLA or KPI. Provider must satisfy each metric of such SLA or KPI in order to satisfy the particular SLA or KPI as a whole, and if Provider fails any single metric within such SLA or KPI, Provider will be deemed to have failed the entire SLA or KPI.

5. SERVICE LEVEL AGREEMENT TERMS AND DEFINITIONS

5.1. General. The numerical SLAs, Performance Targets and commencement of obligations associated with such Service Level Agreements are set forth in Appendix 4-1 (Service Level Agreements). Unless otherwise indicated, all of the Service Level Agreements shall be measured on a monthly basis during the applicable Measurement Interval set forth in Appendix 4-1 (Service Level Agreements). All SLAs and KPIs that measure Provider

performance with respect to Incidents shall be measured only based on the County production environment.

5.2. Severity Level.

5.2.1. The term "Severity Level" means the Severity Level assigned to an Incident in accordance with the following:

Severity Level	Severity Level Characteristics
Severity Level 1 (Critical)	<p>A "Severity Level 1 (Critical)" Incident is as Severity Level 1 Incident as defined below that occurs during periods of increased or critical usage by the County such as year-end processing, statutory or regulatory filing due dates, and board meeting preparation, such that the Incident has a disruptive business impact greater than would similar Incidents occurring during day-to-day usage.</p>
Severity Level 1	<p>A "Severity Level 1" Incident is characterized by the following:</p> <ul style="list-style-type: none"> (a) Critical business functions cannot be performed. (b) a complete stoppage of the Application or interruptions in critically required Application functions. (c) The Incident directly impacts critical financial processing. (d) The Incident may lead to failure to meet regulatory or business continuity requirements. (e) The Incident impacts multiple locations, departments, or groups of individuals. (f) The Incident is one that has a critical impact on the operation of the affected Application or other process that cannot be circumvented (i.e. no reasonable Workaround exists). (g) The Incident, due to the immediacy of its effect on critical business functions, requires a Change be made or request performed on an immediate-response basis.
Severity Level 2	<p>A "Severity Level 2" Incident is characterized by the following:</p> <ul style="list-style-type: none"> (a) A majority of a group or function or an individual cannot perform primary job responsibilities. (b) Some essential business functions are not available or functioning as they should. (b) No practical method of bypassing the Application (no reasonable Workaround exists). (c) The effect of the Incident may impact the functioning of facility(s) and/or business operations, and may result in moderate increases of cost and/or moderate reductions/losses of user satisfaction. (d) Application processing continues only in a limited or restricted manner, and data integrity may be at risk.

Severity Level	Severity Level Characteristics
Severity Level 3	<p>A "Severity Level 3" Incident is characterized by the following:</p> <p>(a) A group or individual's productivity is significantly diminished. Business can continue operations, but reduced productivity will cause increased. Extended Incident duration can lead to loss of primary job function.</p> <p>(b) The Incident does not materially affect the County or does not cause a substantial impact, but it has the potential to do so if not resolved expeditiously.</p> <p>(c) The effect of the Incident may result in small increases of cost and/or small reductions/losses of user satisfaction.</p> <p>(d) There may or may not be an acceptable Workaround available or in place.</p>
Severity Level 4	<p>A "Severity Level 4" Incident is characterized by the following:</p> <p>(a) A group or individual is experiencing a problem that is causing an inconvenience, but is able to continue with normal business operations (e.g., slow response time).</p> <p>(b) The Incident does not have an adverse impact on the business operations of the County because of either the nature of the fault or the small extent of the fault and an acceptable Workaround is in place.</p> <p>(c) The effect of the Incident usually does not directly result in measurable increases of cost and/or reductions/losses of user satisfaction.</p> <p>(d) Deferred maintenance is acceptable.</p>

5.2.2. Severity Level Reclassification.

(a) The Severity Level for each Incident shall be established by Provider in the first instance in accordance with the foregoing definitions and the Standards and Procedures Manual. The County may reclassify any Incident in its reasonable discretion in accordance with the County's reasonable view of the Severity Level definitions by making the applicable change in the service management tool used by the County as of the Effective Date (or any additional or replacement service management tools utilized by the County during the Term) (the "Ticketing System").

(b) The Severity Level of an open Incident may be changed by either Party in response to changing conditions or knowledge of the cause of such Incident. By way of example, and not limitation, an Incident originally classified as Severity Level 3 because it was believed that only a single End-User was affected, shall be changed to Severity Level 1 if it is determined that such Incident affects all End Users.

(c) Changes to the classification of an open Incident shall apply only from and after the moment Provider is notified of such change or otherwise determines such change is warranted. With respect to any measurements of the time Provider spends to complete certain Services (*e.g.*, Time to Resolve):

(i) if the classification of an Incident is changed to a higher Severity Level (*e.g.*, from Severity Level 2 to Severity Level 1), then Provider shall have the full amount of time available under the new Severity Level starting from the time of such escalation;

(ii) if the classification of an Incident is changed to a lower Severity Level (*e.g.*, from Severity Level 1 to Severity Level 2), the total amount of time permitted, starting from the time the Incident was reported, shall be the amount permitted for the new Severity Level designation.

(d) Following the Resolution of any Incident, where possible, within three (3) days, Provider may propose for the County's approval a retroactive adjustment to the Severity Level of a resolved Incident to reflect any changed understanding of the impact of the applicable Incident that would have caused such Incident to have been properly classified at a different Severity Level. By way of example, and not limitation, Provider may propose that an Incident originally classified as Severity Level 1 because it was believed that all End-Users were affected be downgraded to a Severity Level 3 if it was determined that only a single End-User was affected. The County shall consider any such proposed reclassification in good faith and will not unreasonably withhold or delay approval of such reclassification. Beyond three (3) days following the Resolution of an Incident, Provider may request for the County's approval additional disposition on an applicable Incident based on the same reasons stated above; in such instance, if the additional disposition is approved by the County, while the Severity Level will not be adjusted in the Incident Ticket itself, the corresponding Performance Target will be adjusted accordingly. Provider will continuously work on all Severity Level 1 or Severity Level 2 Incidents with the highest priority towards Resolution or Workaround while documenting the history of all events. In the event that the parties are unable to agree on the classification, such issues may be escalated through the Issue Escalation process.

5.3. Other Terms and Definitions.

5.3.1. Availability Measurements. Service Level Agreements and Key Performance Indicators that measure Availability of an Application Type shall be computed as follows:

$$Availability(\%) = \frac{SU - DT}{SU} \times 100 \quad \text{in which:}$$

(a) “SU” or (“Scheduled Uptime”) means the time that the applicable device, devices or applications in question are expected to be operational and available during the relevant month, measured in minutes. Unless otherwise specified in Appendix 4-1 (Service Level Agreements) or Appendix 4-2 (Key Performance Indicators), Scheduled Uptime shall be twenty-four (24) hours per day, seven (7) days per week less any Scheduled Downtime for the applicable Service or Equipment; and

(b) “DT” (or “Downtime”) means time during Scheduled Uptime that the device, devices or applications in question are not Available for use during such month, measured in minutes.

5.3.2. “Scheduled Downtime” shall be the time during the relevant Maintenance Window that the Parties have agreed in advance that such device or application is reasonably required to be unavailable for purposes of performing scheduled maintenance.

5.3.3. “Maintenance Window” with respect to any Server, system or Application shall be established as follows:

(a) for Servers, systems and Applications for which the Performance Target is 24×7×365, Maintenance Windows shall be scheduled during low-usage periods so as to help minimize disruption to the business and shall be proposed and approved in accordance with the Change Management Procedures;

(b) for Servers, systems and Applications for which the Performance Target is less than 24×7×365, Maintenance Windows shall be scheduled outside of the times set forth in the Performance Target for such Server or system and shall be proposed and approved in accordance with the Change Management Procedures;

(c) Provider may request additional or extended Maintenance Windows with respect to any Server, system or Application upon reasonable notice to the County and the County shall not unreasonably deny any such request; and

(d) in all cases, the County may change the Maintenance Window upon reasonable notice to Provider provided that such changes to the Maintenance Window are scheduled in accordance with the Change Management Procedures.

5.3.4. “Available” with respect to any Server, system or Application shall be established as follows:

(a) A device is considered “Available” only when the hardware and System Software thereon are running in accordance with their specifications.

(b) A system or Application is considered “Available” only when in-scope infrastructure components of such system or Application (including

processors, memory, storage and System Software) are running in accordance with their specifications.

5.3.5. Average Availability across multiple Servers or systems shall be computed as follows:

$$\text{Average_Availability}(\%) = \frac{\sum SU - \sum DT}{\sum SU} \times 100 \text{ in which:}$$

- (a) $\sum SU$ means the sum of Scheduled Uptime for all Servers or systems in the applicable pool; and
- (b) $\sum DT$ means the sum of Downtime for all Servers or systems in the applicable pool.

5.3.6. “Time to Respond” means, with respect to an Incident, the elapsed time between the assignment of a Ticket to Provider’s support group and the provision to the County of a personal acknowledgement (*i.e.*, not by automated process) of receipt by the individual Provider Personnel to whom such Ticket has been assigned for Resolution. The Time to Respond SLA is computed as the aggregate number of Incidents for which the Time to Respond is within the Performance Target expressed as a percentage of the total number of Incidents occurring during the Measurement Interval.

5.3.7. “Time to Resolve” means, with respect to an Incident, the elapsed time from Provider’s receipt of a Ticket with respect to such Incident until successful Incident Resolution.

(a) Each “Time to Resolve” SLA is computed as the number of Incidents of the applicable Severity Level for which the Time to Resolve is within the applicable Performance Target expressed as a percentage of the total number of Incidents of the applicable Severity Level Resolved during the Measurement Interval.

(b) For purposes of the “Time to Resolve” SLAs, an Incident shall be deemed Resolved when:

(i) the affected Service is recovered and restored and the affected Application is operating correctly or a Workaround reasonably acceptable to the County has been successfully implemented; and

(ii) the County has confirmed such Resolution.

(c) With respect to a specific Incident, the Time to Resolve shall be further adjusted as follows:

(i) To the extent that an Incident involving an Application cannot be Resolved remotely and the Provider dispatches Provider

Personnel to a the County site in order to Resolve the Incident, the actual travel time reasonably required to reach the County Site shall be added to the Performance Target for such Incident for Resolution;

(ii) To the extent that Provider's Resolution of an Incident is dependent upon the completion of a the County Responsibility, the time from the referral of such Ticket to the County (or the applicable Third Party resolution agency) until the Ticket is referred back to Provider shall be added to the Performance Target for such Incident for Resolution;

(iii) To the extent that the Resolution of the Incident requires restoration of data from back-up media, the restore time shall be added to the Performance Target for such Incident for Resolution; and

(iv) To the extent that the County requests that Provider delay efforts to Resolve an Incident (*e.g.*, wait until the end of the Business Day to reduce disruption to business functions), the time from Provider's receipt of such request for delay until the time Provider is permitted to restart attempts to Resolve shall be added to the Performance Target for Resolution of such Incident.

(d) With respect to a specific Incident, Availability shall be further adjusted as follows:

(i) To the extent that an Incident involving an Application cannot be Resolved remotely and the Provider dispatches Provider Personnel to a the County site in order to Resolve the Incident, the actual travel time reasonably required to reach the County site shall be deducted from the Downtime for such Incident;

(ii) To the extent that Provider's Resolution of an Incident is dependent upon the completion of a the County Responsibility, the time from the referral of such Ticket to the County (or the applicable Third Party resolution agency) until the Ticket is referred back to Provider shall be deducted from the Downtime for such Incident;

(iii) To the extent that the Resolution of the Incident requires restoration of data from back-up media, the restore time shall be deducted from the Downtime for such Incident;

(iv) To the extent that the County requests that Provider delay efforts to Resolve an Incident (*e.g.*, wait until the end of the Business Day to reduce disruption to business functions), the time from Provider's receipt of such request for delay until the time Provider is permitted to restart attempts to Resolve shall be deducted from the Downtime for such Incident.

5.3.8. Tickets Logged Outside of Service Coverage Hours.

(a) With respect to any Severity Level 3 or Severity Level 4 Incident Ticket that is logged in the Ticketing System outside of the defined service coverage period (Business Days, 7am - 5pm Central Time), the SLA and KPI measurement will be adjusted by adding to the applicable Performance Target for such Ticket the elapsed time from the logging of the Ticket until the start of the next service coverage period and the applicable SLA or KPI shall be measured on the basis of the actual elapsed time from the logging of the Ticket until Resolution as compared to the adjusted Performance Target.

(b) For the avoidance of doubt, the foregoing adjustment shall not apply to Severity Level 1 or Severity Level 2 Incidents.

5.4. Continuous Improvement of SLAs. Upon mutual agreement between the parties, SLAs shall be modified at the end of each twelve (12) month period following the third anniversary of the Effective Date. The proposed method for SLA modifications is as follows:

5.4.1. Each SLA will be reset to a level equal to the average of the six (6) highest reported actual results achieved during such twelve (12) month period; *provided, however*, that any of such six (6) highest monthly actual results that is below the SLA will be replaced with the then-current SLA. By way of example, and not in limitation of the foregoing, if the SLA being adjusted was 99.6%, and the six (6) highest actual results to date were 99.90%, 99.80%, 99.70%, 99.70%, 99.70% and 95%, the 95% would be replaced with 99.6% and the calculation would be $((99.90\% + 99.80\% + 99.70\% + 99.70\% + 99.70\% + 99.60\%) / 6) = 99.73\%$. In no event shall any single increase in an SLA pursuant to this Section 5.4 exceed ten percent (10%) of the difference between one hundred percent (100%) and the then-current SLA.

5.4.2. With respect to any SLA specifying a permitted number of “misses” of the Performance Target, the SLA shall be reset to a level equal to the lower of (a) the then current number of permitted misses, and (b) the average of the actual number of misses during the applicable twelve (12) month period, rounded to the nearest whole number; *provided, however*, that in no event will the permitted number of misses be less than one unless mutually agreed by the Parties.

[End of Schedule 4]

APPENDIX 4-1

SERVICE LEVEL AGREEMENTS

1. Service Level Agreements– Incident Response and Resolution Time

<i>Assigned Severity Level</i>	<i>Performance Target Time to Respond</i>	<i>Performance Target Time to Resolve**</i>
Severity Level 1 (Critical)	30 minutes	90% within 4 Hours, 10% within 8 hours
Severity Level 1	1 Hour	90% within 1 Business Day, 10% within 2 Business Days
Severity Level 2	2 Business Hours	90% within 2 Business Days

**For purposes of these Performance Targets, the determination of 90% of applicable Tickets will be rounded down to the nearest whole number. For Oracle product related bugs, Provider will raise a Service Request with Oracle within the target Resolution Time.

2. Service Level Agreement - Availability

<i>Tier</i>	<i>Availability</i>
Application (Oracle eBS)	99.5% Availability
Application (Hyperion)	99.5% Availability

3. Service Level Agreement Weighting Factors

<i>Description</i>	<i>Measurement</i>	<i>Weighting Factor/ Allocation</i>
Severity Level 1 (Critical) – Incident Assign Time	Monthly	35%
Severity Level 1 (Critical) – Resolution	Monthly	30%
Severity Level 1 – Incident Assign Time	Monthly	20%
Severity Level 1 - Resolution	Monthly	30%
Severity Level 2 – Incident Assign Time	Monthly	15%

<i>Description</i>	<i>Measurement</i>	<i>Weighting Factor/ Allocation</i>
Severity Level 2 –Resolution	Monthly	20%
Application Availability – Oracle EBS	Monthly	30%
Application Availability – Hyperion	Monthly	20%

[End of Appendix 4-2]

APPENDIX 4-2

KEY PERFORMANCE INDICATORS

1. **Key Performance Indicators – Response and Resolution Times**

<i>Assigned Severity Level</i>	<i>Performance Target Time to Respond</i>	<i>Performance Target Time to Resolve**</i>
Severity Level 3	1 Business Day	90% within 5 Business Days
Severity Level 4	Mutual Agreement	Mutual Agreement

**For purposes of these Performance Targets, the determination of 90% of applicable Tickets will be rounded down to the nearest whole number.

2. **Key Performance Indicators – Application and Infrastructure Availability**

<i>Tier</i>	<i>Availability</i>
Application OBIEE	95% Availability
Infrastructure	99.5% Per VM Availability (Bronze)

3. **Key Performance Indicators – Disaster Recovery**

<i>Disaster Recovery Hosting</i>	<i>Availability</i>
Recovery Point Objective (RPO)	15 minutes
Return to Operations (RTO)	4 hours

[End of Appendix 4-2]

ATTACHMENT A

DEFINITIONS

September 15, 2015

References in this Agreement to any Schedule shall be deemed to include, as applicable, the referenced Schedule as well as any Attachments, Appendices or Exhibits attached thereto. Similarly, references to any Attachment shall be deemed to include, as applicable, the referenced Attachment as well as any Appendices or Exhibits attached thereto.

For purposes of this Agreement, capitalized terms shall have meanings set forth below:

<p>“Abandonment” or “Abandon” has the meaning given in <u>Section 13.2.4</u> of the <u>Terms and Conditions</u>.</p>
<p>“Acceptance Criteria” means criteria for the successful completion of a Project milestone to be set forth in a Project Plan.</p>
<p>“Additional Exit Assistance Fees” has the meaning given in <u>Section 1.4.1</u> of <u>Attachment E</u> (Exit Assistance).</p>
<p>“Affected Services” has the meaning given in <u>Section 13.3.2</u> of the <u>Terms and Conditions</u>.</p>
<p>“Affiliate” means, with respect to an entity, another entity Controlling, Controlled by or under common Control with that entity.</p>
<p>“Agreement” means this Master Services Agreement, dated as of the Effective Date, by and between the County and Provider, and specifically including all Attachments, Schedules, Appendices and Exhibits thereto.</p>
<p>“Amount at Risk” has the meaning given in <u>Schedule 4</u> (Service Level Agreements and Fee Reductions).</p>
<p>“Applicable Personnel” has the meaning given in <u>Section 15.10.1</u> of the <u>Terms and Conditions</u>.</p>
<p>“Application” means County-Provided Software, including Third Party Software and Middleware that meets the definition of County-Provided Software, but excluding System Software.</p>
<p>“Application Managed Services” as defined in <u>Section 1.2.2</u> of <u>Schedule 2A</u> (Statement of Work).</p>
<p>“Approved Facility” means a County Facility or Provider Facility, approved in advance by the County, from which Provider may perform the Services.</p>
<p>“Approved Subcontractors” has the meaning given in <u>Section 8.1.3</u> of <u>Schedule 1</u> (Relationship Management).</p>
<p>“Assets” means Equipment, hardware, Software, and other assets used in provision of the Services.</p>
<p>“Availability” (or as the context requires, “Available”) means the percentage of time that a given Service or system is fully operational and available for use computed in accordance with <u>Schedule 4</u> (SLAs and Fee Reductions).</p>

<p>“Base Fees” has the meaning given in <u>Section 3.3</u> of <u>Schedule 3</u> (Fees).</p>
<p>“Baseline” has the meaning given in <u>Section 2.3.2</u> of <u>Schedule 3</u> (Fees).</p>
<p>“Business Associate Agreement” means the Business Associate Agreement entered into between the Parties pursuant to <u>Section 2.1.2</u> of <u>Attachment D</u> (Security and Data Protection).</p>
<p>“Business Continuity Plan” means the planned process, and related activities, required to maintain continuity of business operations between the period of time following declaration of a Disaster until such time an IT environment is returned to an acceptable condition of normal business operation.</p>
<p>“Business Day” means a weekday (Monday through Friday), excluding New Year’s Day, Martin Luther King Jr. Day, Lincoln’s Birthday, Washington’s Birthday, Casimir Pulaski Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day Thanksgiving Day and the Day following Thanksgiving and Christmas Day.</p>
<p>“Certification Regarding Lobbying” has the meaning given in <u>Section 16.4.5</u> of the <u>Terms and Conditions</u>.</p>
<p>“Change” means, in an operational context, an addition, modification or deletion to the supported or baselined Assets, Applications, IT environment, IT systems, Network, associated documentation and Provider Assets. Changes may arise reactively in response to Incidents/Problems or externally imposed requirements (e.g., legislative changes), or proactively from attempts to (a) seek greater efficiency or effectiveness in the provision or delivery of Services; (b) reflect business initiatives; or (c) implement programs, Projects or Service improvement initiatives. Changes must be approved by the County, through the Change Management process, prior to implementation.</p>
<p>“Change Request” has the meaning given in <u>Section 5.1.1</u> of <u>Schedule 1</u> (Relationship Management).</p>
<p>“Changes in Law” means the enactment, amendment or replacement of any Laws.</p>
<p>“Chief Procurement Officer” means the Chief Procurement officer for the County and any representative duly authorized in writing to act on his or her behalf.</p>
<p>“Cloud Managed Services” as defined in <u>Section 1.2.1</u> of <u>Schedule 2A</u> (Statement of Work).</p>
<p>“Commercially Reasonable Efforts” means taking such steps and performing in such a manner as a well-managed company would if such company were acting in a determined, prudent, and reasonable manner to achieve a particular result for its own benefit.</p>

“Confidential Information” means, except as otherwise specifically agreed in writing by the Parties: (a) all information of a the Disclosing Party marked confidential, restricted, proprietary, or with a similar designation; (b) the terms and conditions of this Agreement and all correspondence, information and other materials disclosed by the Disclosing Party to Receiving Party during the course of the transaction entailed in this Agreement; and (c) any other information, whether in written, oral, graphic, electronic or any other form, that a reasonable person would anticipate, whether by context, instruction, experience or otherwise, to be confidential. With respect to the County, Confidential Information includes, but is not limited to: County Data; Software licensed to the County; sales, cost and other unpublished financial information; personnel records; personal information of the County’s employees; product and business plans; Personal Information; business projections, pricing, and marketing data; technical information and user manuals; and forecasts, analyses, software and processes.

“Configuration Management Database” or **“CMDB”** means a central repository of information related to all of the components of the County’s IT system, which, in the ITIL context, represents the authorized configuration of all of the components of the County’s IT environment and allows the County or its designee to understand and manage the relationships between these components and to track their configuration.

“Consulting Parties” has the meaning given in Section 16.4.2 of the Terms and Conditions.

“Control” and its derivatives mean, with regard to an entity, the legal, beneficial or equitable ownership, directly or indirectly, of (a) fifty percent (50%) or more of the capital stock (or other ownership interest, if not a corporation) of such entity ordinarily having voting rights, or (b) the power to direct or cause direction of management and policies of such entity, whether through the ownership of voting shares, by contract, or otherwise.

“Cook County Code of Ordinances” means the ordinances which are adopted by the Cook County Board of Commissioners.

“County” or **“the County”** has the meaning given in the preamble of the Terms and Conditions.

“Chief Procurement Officer” means the Chief Procurement officer for the County and any representative duly authorized in writing to act on his or her behalf.

“County Contract Executive” means a representative designated by the County who will be directly responsible for overseeing the receipt of the Services from Provider and who shall be the primary relationship manager between the County and Provider.

“County Data” means all data provided by the County to Provider, provided by Third Parties to Provider for purposes relating to this Agreement, or otherwise encountered by Provider for purposes relating to this Agreement, including all data sent to Provider by the County and/or stored by Provider on any media relating to the Agreement, including metadata about such data. To the extent there is any uncertainty as to whether any data constitutes County Data, the data in question shall be treated as County Data. County Data further includes, whether or not Confidential Information (a) input, processed or stored by the County’s IT systems, including any County-Provided Software; (b) submitted to Provider by the County, Third Party Providers, business partners, customers and employees in connection with the Services or otherwise; (c) incident records containing information relating to the Services; (d) stored or used in connection with the County CMDB; (e) any County Confidential Information; and (f) any raw data used to generate reports under this Agreement and any data included therein. For the avoidance of doubt, “County Data” does not include any Provider data, Provider confidential information or Provider Materials.

“County Director of ERP” means the director of the County’s ERP office and any representative duly authorized in writing to act on his or her behalf.

“County Exit Assistance Manager” has the meaning given in Section 1.6.1 of Attachment E (Exit Assistance).

“County Facilities” has the meaning given in Section 9.5.1 of Schedule 1 (Relationship Management).

“County Intellectual Property” means all Intellectual Property owned or licensed by the County.

“County IP Materials” means all IP Materials owned or licensed by the County.

“County Policies” has the meaning given in Section 2.6.1(a) of Schedule 1 (Relationship Management).

“County Resources” has the meaning given in Section 9.4.1 of Schedule 1 (Relationship Management).

“County Responsibilities” means only those tasks and functions expressly identified as County Responsibilities in a Statement of Work (including those tasks that are an inherent part of such tasks and functions).

“County Service Manager” means a representative designated by the County who is responsible for the day-to-day oversight of Provider’s performance of the Services.

“CPI” means Consumer Price Index as defined in Section 1.7 of Schedule 3 (fees).

“Critical Milestone” means those milestones identified as such in this Agreement, including in any Schedule, Appendix, Attachment or Exhibit hereto, or in a Project Plan.

<p>“Critical Release” means a release containing (a) patches and/or resolutions to defects or non-conformances affecting software, data or system vulnerabilities or security issues, or (b) resolutions to defects or non-conformances causing significant loss or degradation of usability of the affected software.</p>
<p>“Criminal Justice Information” means data that meets the definition of “Criminal Justice Information” in the most recent version of FBI’s CJIS Security Policy and also data that meets the definition of “Criminal History Record Information” at 28 C.F.R. 20.</p>
<p>“Cure Notice” has the meaning given in Section 15.1.3 of the Terms and Conditions.</p>
<p>“Data Protection Laws” means Laws, regulations, regulatory requirements, industry self-regulatory standards, and codes of practice in connection with the processing of Personal Information, including those provisions of the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. §§ 1320(d) et seq.) as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (42 U.S.C. §§ 17921 et seq.), laws and regulations affecting data processors promulgated pursuant to Directive 95/46/EC of the European Parliament and of the Council on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and the Payment Card Industry Data Security Standard, and any successors or replacements of any of the foregoing.</p>
<p>“Data Security Breach” means (a) the loss or misuse (by any means) of any County Data; (b) the inadvertent, unauthorized and/or unlawful access, processing, corruption, modification, sale, or rental of any County Data; or (c) any other act or omission that compromises the security, confidentiality, integrity or availability of any County Data.</p>
<p>“Default Notice” has the meaning given in <u>Section 15.1.3</u> of the <u>Terms and Conditions</u>.</p>
<p>“Defect” means a problem or issue with the Software or Equipment that results in a Severity Level designation.</p>
<p>“Deliverables Fees” has the meaning given in <u>Section 3.2</u> of <u>Schedule 3</u> (Fees).</p>
<p>“Developed Intellectual Property” has the meaning set forth in <u>Section 8.2</u> of the <u>Terms and Conditions</u>.</p>
<p>“Developed Software” has the meaning given in <u>Section 10.7</u> of the <u>Terms and Conditions</u>.</p>
<p>“Disaster” means a sudden, unplanned, calamitous event causing substantial damage or loss as defined or determined by a risk assessment and business impact analysis, and which creates an inability or substantial impairment on the organization’s part to provide critical business functions for a material period of time. This also includes any period when the County management decides to divert resources from normal production responses and exercises its Disaster Recovery Plan.</p>
<p>“Disaster Recovery Plan” means the planned process, and related activities, required to return an IT environment to an acceptable condition of normal business operation following declaration of a Disaster.</p>
<p>“Disclosing Party” has the meaning given in <u>Section 9.1.1</u> of the <u>Terms and Conditions</u>.</p>

<p>“Discount Period” has the meaning given in <u>Section 5.3 of Schedule 3 (Fees)</u>.</p>
<p>“Dispute” has the meaning given in <u>Section 14.1 of the Terms and Conditions</u>.</p>
<p>“Effective Date” has the meaning given in the preamble of the <u>Terms and Conditions</u>.</p>
<p>“End-User” means: (a) any employee of the County; and (b) any other Person who is determined by the County, in its sole discretion, to be permitted to have access to any of the Services.</p>
<p>“Equipment” means the computer, telecommunications, storage, and related hardware and peripherals owned or leased by the County or its Third Party Providers, or by Providers or its subcontractors, and used or supported by Providers or its subcontractors, or by the County or its agents, in connection with the Services. If provided by or on behalf of the County, such items are “County-Provided Equipment.” If provided by or on behalf of Provider, such items are “Provider-Provided Equipment.”</p>
<p>“Event of Default” has the meaning given in <u>Section 15.1 of the Terms and Conditions</u>.</p>
<p>“Executive Committee” has the meaning given in <u>Section 2.1.1 of Schedule 1 (Relationship Management)</u>.</p>
<p>“Exit Assistance Plan” has the meaning given in <u>Section 1.5.1 of Attachment E (Exit Assistance)</u>.</p>
<p>“Exit Assistance Period” has the meaning given in <u>Section 1.2.1 of Attachment E (Exit Assistance)</u>.</p>
<p>“Exit Assistance Services” has the meaning given in <u>Section 1.1 of Attachment E (Exit Assistance)</u>.</p>
<p>“Failure” means, (a) with respect to an SLA, the failure of Provider to satisfy the applicable Service Level Agreement, (b) with respect to a KPI, the failure of Provider to satisfy the applicable Key Performance Indicator; or (c) with respect to a Critical Milestone, the failure of Provider to achieve such Critical Milestone.</p>
<p>“Fee Reduction” means the dollar amount by which the Fees will be reduced based on Provider’s failure to: (a) timely achieve any Critical Milestone; or (b) achieve any SLA for which Weighting Factors are assigned.</p>
<p>“Fees” means the amounts payable to Provider for the performance of the Services, as set forth in <u>Schedule 3 (Fees)</u>.</p>
<p>“FMLA” means the Family Medical Leave Act.</p>
<p>“Force Majeure Event” has the meaning given in <u>Section 13.3.1 of the Terms and Conditions</u>.</p>
<p>“Full Payment” has the meaning given in <u>Section 5.3 of Schedule 3 (Fees)</u>.</p>
<p>“GAAP” has the meaning given in <u>Section 1.2 of Attachment C (Compliance and Audit Standards)</u>.</p>

“Go/No-Go Criteria” has the meaning given in Section 3.3.3 of Attachment B (Transition Services).

“Guiding Principles” has the meaning given in Section 1.3 of the Terms and Conditions.

“IDs” means access identification such as user names.

“Illicit Code” has the meaning given in Section 10.9 of the Terms and Conditions.

“Incident” means any event that is not part of the standard operation of a service in the County IT environment (including an event in respect of the Services or any Equipment or Software) and that causes, or may cause, an interruption to, or a reduction in the quality of, that service. The County will determine the Severity Level of each reported Incident.

“Indemnifiable Losses” means (a) all losses, liabilities, and damages paid to a Third Party pursuant to a judgment or settlement, and (b) all reasonable costs and expenses related thereto (including reasonable legal fees and disbursements and reasonable costs of investigation, litigation, settlement, judgment, interest and penalties) incurred by an indemnified party.

“Inflation Adjustment” has the meaning given in Section 1.7 of Schedule 3 (Fees).

“Intellectual Property” means any inventions, discoveries, designs, processes, software, documentation, reports, and works of authorship, drawings, specifications, formulae, databases, algorithms, models, methods, techniques, technical data, discoveries, know how, trade secrets, and other technical proprietary information and all patents, copyrights, mask works, trademarks, service marks, trade names, service names, industrial designs, brand names, brand marks, trade dress rights, Internet domain name registrations, Internet web sites and corporate names, and applications for the registration or recordation of any of the foregoing.

“IP Materials” means works of authorship, software, documentation, processes, designs, drawings, specifications, formulae, databases, algorithms, models, methods, processes and techniques, technical data, inventions, discoveries, know how, the general format, organization, or structure of any report, document or database, and other technical proprietary information.

“Issue Escalation Process” has the meaning given in Section 11.1 of Schedule 1 (Relationship Management).

“IT” means information technology.

“ITIL” means the Information Technology Infrastructure Library framework and leading practices.

“Key Performance Indicators” or **“KPIs”** has the meaning given in Section 1.2 of Schedule 4 (Service Level Agreements and Fee Reductions).

“Key Provider Personnel” has the meaning given in Section 3.2 of Schedule 1 (Relationship Management).

“Key Subcontractors” has the meaning given in Section 8.1.3 of Schedule 1 (Relationship Management).

“Laws” means all United States federal, state and local laws or foreign laws, constitutions, statutes, codes, rules, regulations, ordinances, executive orders, decrees, edicts of or by any governmental authority having the force of law or any other legal requirement (including common law), including Data Protection Laws and the Cook County Code of Ordinances. When used in the context of Provider, “Laws” shall mean Provider Laws, and when used in the context of County, “Laws” shall mean County Laws.

“Lobbyist” means any person or entity any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action.

“Major Release” means a new version of software that includes changes to the architecture and/or adds material new features and functionality in addition to the original functional characteristics of the preceding software release. These releases are usually identified by full integer changes in the numbering, such as from “7.0” to “8.0,” but may be identified by the industry as a major release without the accompanying integer change.

“Maintenance Release” means a release other than a Critical Release containing patches and/or resolutions to defects or non-conformances made available since the immediately preceding release and may include small functionality updates. These releases are usually identified by a change in the decimal numbering of a release, such as “7.12” to “7.13.”

“Managed Services” means both the Application Managed Services and the Cloud Managed Services.

“Managed Services Delivery Manager” means the individual designated to operate the Managed Services.

“MBE/WBE Utilization Plan” means the Provider’s proposal to comply with the minority and women’s business enterprise commitment requirements of the Cook County Ordinance.

“Measurement Interval” means the period in which a given SLA, KPI or Critical Milestone is measured (e.g., one (1) month, one (1) year, etc.).

“Measurement Tools” means tools used to measure the performance of Equipment, Network and systems (e.g., Availability and Usage).

“Middleware” means software that serves as a data-passing intermediary between operating system software and an application. Middleware is also used to describe separate products that serve as the “glue” between two applications, distinct from import and export features that may be built into one of the applications.

“Migration Plan” has the meaning given in Section 9.9.2 of Schedule 1 (Relationship Management).

“Network” means the premises equipment and software, cabling infrastructure, and the telecommunications circuits providing the physical and logical interconnectivity (both wired and wireless) between multiple computing devices, and includes the Local Area Network (LAN), Metropolitan Area Network (MAN), Wide Area Network (WAN), Virtual Private Network (VPN), and interconnecting devices.

“New Services” means services that are (a) that are germane to, but materially different from, the Services, or otherwise require Provider to deploy materially different types of resources; and (b) are requested by the County after the Effective Date consistent with the requirements of the Procurement Code, and, in each case, for which there is no currently identified baseline or charging methodology.

“New Services Fees” has the meaning given in Section 3.4 of Schedule 3 (Fees).

“Notice of Election” has the meaning given in Section 12.2.1 of the Terms and Conditions.

“Open Source Code” has the meaning given in Section 10.10 of the Terms and Conditions.

“Party” and **“Parties”** have the meaning given in the preamble to the Terms and Conditions.

“Performance Standards” means the qualitative and quantitative standards set forth in this Agreement, including the Service Level Agreements.

“Performance Target” means the service performance level set forth in Schedule 4 (Service Level Agreements and Fee Reductions) for a particular SLA or KPI.

“Permitted Removal” has the meaning given in Section 3.5.1 of Schedule 1 (Relationship Management).

“Personal Information” means personal data or information that relates to a specific, identifiable, individual person, including County personnel, Using Agencies and individuals about whom the County has or collects financial and other information. For the avoidance of doubt, Personal Information includes the following: (a) any government-issued identification numbers (e.g., Social Security, driver’s license, passport); (b) any financial account information, including account numbers, credit card numbers or debit card numbers; (c) Criminal Justice Information; (d) Protected Health Information; (e) user name or email address, in combination with a password or security question and answer that would permit access to a County or Provider account; and (f) any other personal data defined as personally identifiable information under the breach notification laws of the fifty states.

“Personnel Rates” means, with respect to the skill categories set forth in Appendix 3-5 (Personnel Rates) to Schedule 3 (Fees), the hourly rates set forth therein, and with respect to other skill categories not specified therein, Provider’s commercially available rate for such skill category, subject to the standard discount provided to the County by Provider.

“Post-Termination Rights” means, with respect to Third Party Intellectual Property, the rights described in Sections 3.1 and 3.3 of Attachment E (Exit Assistance), and with respect to Provider Materials, the rights described in Section 3.4 of Attachment E (Exit Assistance).

<p>“Priority Services” has the meaning given in <u>Section 3.5</u> of the <u>Terms and Conditions</u>.</p>
<p>“Procurement Code” means Chapter 34, Article IV of the Cook County Code of Ordinances.</p>
<p>“Problem” means the underlying cause of one or more Incidents, including where such cause is unknown or where it is known and a temporary work-around or permanent alternative has been identified.</p>
<p>“Project” means work that (a) is discrete and non-recurring; (b) is germane to the performance of the Services but not required for Provider to meet Provider’s other obligations under this Agreement, including meeting the Performance Standards; (c) requires planning, start-up, execution, and closure; and (d) is requested by the County after the Effective Date consistent with the requirements of the Procurement Code. The Parties may refer to other aggregations of work that do not meet the requirements of this definition as “projects,” however, any such projects are in scope and do not attract additional charges.</p>
<p>“Project Plan” has the meaning given in <u>Section 7.2</u> of <u>Schedule 1</u> (Relationship Management).</p>
<p>“Protected Health Information” has the meaning given in the Business Associate Agreement.</p>
<p>“Provider” has the meaning given in the preamble of the <u>Terms and Conditions</u>.</p>
<p>“Provider Enterprise Subcontract” means a subcontract for providing services to Provider on an enterprise basis and that does not provide services specific to this Agreement.</p>
<p>“Provider Exit Assistance Manager” has the meaning given in <u>Section 1.6.1</u> of <u>Attachment E</u> (Exit Assistance).</p>
<p>“Provider Facilities” means locations owned, leased or otherwise utilized by Provider and its Subcontractors from which it or they may provide Services.</p>
<p>“Provider Laws” means all Laws applicable to Provider applicable to Provider and its business, which specifically includes Laws applicable to the manner in which the Services are performed..</p>
<p>“Provider Leads” has the meaning given in <u>Section 3.4</u> of the <u>Terms and Conditions</u>.</p>
<p>“Provider Materials” has the meaning given in <u>Section 8.3</u> of the <u>Terms and Conditions</u>.</p>
<p>“Provider Personnel” means any individuals that are employees, representatives, Subcontractors or agents of Provider, or of a direct or indirect Subcontractor of Provider.</p>
<p>“Provider Project Executive” has the meaning given in <u>Section 3.3</u> of <u>Schedule 1</u> (Relationship Management).</p>
<p>“Provider Project Manager” has the meaning given in <u>Section 3.4</u> of <u>Schedule 1</u> (Relationship Management).</p>
<p>“Provider Records” has the meaning given in <u>Section 1</u> of <u>Attachment C</u> (Compliance and Audits Standards).</p>

“Provider Resources” has the meaning given in Section 9.4.1 of Schedule 1 (Relationship Management).

“Provider-Provided Equipment” has the meaning given in the definition of “Equipment.”

“Provider-Provided Software” has the meaning given in the definition of “Software.”

“Purchased Equipment” has the meaning given in Section 3.2.2 of Attachment E (Exit Assistance).

“Receiving Party” has the meaning given in Section 9.1.1 of the Terms and Conditions.

“Relationship Management Services” has the meaning given in Section 1.1 of Schedule 1 (Relationship Management).

“Release” means a Critical Release, Maintenance Release, or Major Release.

“Remedial Action Plan” has the meaning given in Section 2.7.1 of Attachment C (Compliance and Audit Standards).

“Required Consent” has the meaning given in Section 7.1 of the Terms and Conditions.

“Resource Units” or ***“RUs”*** has the meaning given in Section 2.1 of Schedule 3 (Fees).

“Root Cause Analysis” is a Problem management analysis process used in determining and documenting the unknown underlying cause(s) (e.g., root causes) of one or more Incidents so that appropriate actions are taken to correct the situation to minimize the possibility of recurrence of the Incident(s) or events. It is also used as a predictive process in identifying and analyzing trends that could result in the future occurrence of one of more Incidents.

“Services” has the meaning given in Section 3.1.1 of the Terms and Conditions.

“Service Handover Date” means, for each Service, the applicable Service Go-Live date.

“Service Level Agreement” or ***“SLA”*** means service level requirement and is a standard for performance of the Services, which sets Provider and County expectations, and specifies the metrics by which the effectiveness of service activities, functions and processes will be measured, examined, changed and controlled. The specific SLAs for each Service are described and set forth in Appendix 4-1 to Schedule 4 (Service Level Agreements and Fee Reductions).

“Severity Levels” mean categories that identify the degree of business criticality and importance to the County of specific Incidents, and the associated Provider response requirements attributed to any such Incident. The Severity Level categories and descriptions set forth in Schedule 4 (SLAs and Fee Reductions) apply to all Services.

“Service Management Team” has the meaning given in Section 2.3 of Schedule 1 (Relationship Management).

“Services Standards” has the meaning given in Section 2.6.5 of Schedule 1 (Relationship Management).

“Software” means computer software, including source code, object, executable or binary code, comments, screens, user interfaces, data structures, data libraries, definition libraries, templates, menus, buttons and icons, and all files, data, materials, manuals, design notes and other items and documentation related thereto or associated therewith. If owned by or licensed to the County, it is **“County-Provided Software.”** If owned by or licensed to Provider, it is **“Provider-Provided Software.”**

“SOW” or **“Statement of Work”** means a statement of work under this Agreement.

“SOW Change Control Procedure” has the meaning given in Section 5.1 of Schedule 1 (Relationship Management).

“Standards and Procedures Manual” means the documentation detailing how Provider will perform the Services pursuant to a given SOW, which Provider will develop as set forth in the applicable SOW.

“Steering Committee” has the meaning given in Section 2.2 of Schedule 1 (Relationship Management).

“Subcontractor” means any Provider subcontractors, attorneys, Lobbyists, accountants, third-party service providers, suppliers, auditors, consultants or other Third Party that Provider utilizes with respect to the performance of the Services.

“System Software” means the control programs that manage computer resources and enable an individual computing device to function, and includes operating systems, device drivers, firmware and all utility programs. For clarity, System Software does not include Applications or Middleware.

“Term” has the meaning given in Section 2.1 of the Terms and Conditions.

“Termination Date” has the meaning given in Section 1.2.1(b) of Attachment E (Exit Assistance).

“Termination for Convenience Fees” means the fees listed in Appendix 3-2 (Termination for Convenience Fees) to Schedule 3 (Fees).

“Termination Notice Date” has the meaning given in Section 1.2.1 of Attachment E (Exit Assistance)

“Terms and Conditions” has the meaning given in Section 1.5.1 of the Terms and Conditions.

“Third Party” means a legal entity, company or person that is not a Party to the Agreement and is not an Affiliate of a Party.

“Third Party Contract” means an agreement between the County and a Third Party that Provider is to assume as of the Effective Date or as of such later date as may be agreed by the Parties.

“Third Party Intellectual Property” means all Intellectual Property owned by a Third Party.

“Third Party Provider” means a Third Party that provides the County with products or services that are related to, or in support of, the Services. Subcontractors of Provider are not “Third Party Providers.”

“Third Party Software” means a commercial Software product developed by a Third Party (not Provider) not specifically for or behalf of the County. For clarity, custom or proprietary Software, including customizations to Third Party Software, developed by or on behalf of the County to the County’s specifications shall not be considered Third Party Software.

“Using Agencies” means the departments or agencies within Cook County government including elected officials.

“Wage Act” has the meaning given in Section 3.13 of Schedule 1 (Relationship Management).

“Weighting Factor” means, for any SLA or applicable Critical Milestone, the percentage factor that is applied to the Amount at Risk for purposes of calculating Fee Reductions in the event of any Failure during a given Measurement Interval.

[End of Attachment A]

ATTACHMENT B

RESERVED

September 15, 2015

ATTACHMENT C
COMPLIANCE AND AUDIT STANDARDS

September 15, 2015

1. RECORDKEEPING.

During the Term of this Agreement (and, with respect to financial records, for a period of seven (7) years following the termination or expiration of this Agreement), Provider shall maintain a complete audit trail of financial and non-financial transactions resulting from this Agreement, including those relating to Provider's internal controls, which shall include written and electronic copies of all such records and books created in the ordinary course of business. Financial books and records shall be maintained in accordance with generally accepted accounting principles ("GAAP") consistently applied. Subject to Section 5 of the Terms and Conditions, such financial books and records, together with all other required books and records of Provider required to be maintained under this Section 1 (collectively, the "Provider Records"), shall comply in all respects with applicable Provider Law.

2. AUDIT.

2.1 Audit Rights.

2.1.1 During the Term of this Agreement and continuing for a period of three (3) years following the termination or expiration of this Agreement, at the County's request, Provider shall provide to the County and its internal or external auditors, inspectors and regulators, at any time during standard business hours, logical access to Provider Systems used specifically to provide Services to the County, including access to Provider Personnel and Provider Records. For the avoidance of doubt County shall not have physical access to Provider data centers. Access to Systems shall be limited to the "Computing Environment" which for the purposes of this clause shall mean the server instances, VLANs, operating systems, applications, databases installed on the server instances to provide the Managed Services for County. The access is for the purpose of performing audits, tests, examinations, and inspections of either Provider or its Subcontractors providing the Services in order to:

- (a) verify the accuracy of charges and invoices;
- (b) verify that Provider is in compliance with the terms and conditions of this Agreement, including compliance with the County Policies;
- (c) verify the accuracy of payments to, or credits from, Provider;
- (d) audit and inspect the conduct of Provider operations and procedures relating to the Services or in Provider's performance of the Services, including Provider's performance of the Services in accordance with the Performance Standards;
- (e) verify the availability, integrity and confidentiality of the County's data and examine the processes used to , store, support and transmit the County's data;

(f) examine Provider's performance of the Services, including verifying compliance with the Performance Standards, KPIs and SLA measurement, monitoring and reporting;

(g) verify compliance with the terms of the Agreement;

(h) examine: (i) practices and procedures, including security and privacy practices and procedures, and disaster recovery and backup/recovery processes and procedures; and (ii) the efficiency of Provider's operation, in each case as it relates to the Services; and

(i) verify Provider's compliance with the requirements of this Attachment C (Compliance and Audit Standards).

2.1.2 Provider shall provide the County's regulators and other governmental entities with jurisdiction over the County with access to Provider Facilities, Provider Personnel, Provider systems, Provider Records, and other information pertaining to the County, records and documentation relating to the Services for the purpose of performing audits and inspections of either Provider or its Subcontractors as required by such regulators and entities. Provider and County will cooperate in answering inquiries from regulators and other governmental entities allowing physical access, in accordance with Provider's standard processes and procedures, only as a last resort.

2.1.3 The County shall have the right to audit the SLA measurement, monitoring and reporting performed by Provider using the audit procedures set forth in this Section 2.

2.1.4 Provider shall be responsible for ensuring that all agreements with Subcontractors performing Services under this Agreement contain terms and conditions consistent with the rights granted to the County under this Section 2.1. This shall not include Provider Enterprise Subcontracts.

2.2 Security Audits. Provider shall perform, at its sole cost and expense, a logical security audit no less frequently than every twelve (12) months. The security audit shall test Provider's compliance with security standards and procedures set forth in this (a) Agreement, (b) the Provider's Information Security Document, and (c) any security standards and procedures otherwise agreed to by the Parties. To the extent that the results of any such audits reveal deficiencies or issues that impact the County or the Services, Provider shall provide the County with such results promptly following completion thereof. The County may perform a technical security integrity review, penetration test, or vulnerability scan of VLANs that are accessible through the dedicated IP addresses that are used to provide Services to the County. The review shall be done in accordance with the following conditions: (1) only test, scan or review the IP addresses and VLANs supplied by Provider to the County that are part of the dedicated Services (the infrastructure which is used to support multiple customers must be exempt); (2) only test, scan, or review County dedicated infrastructure and databases; and (3) not perform or simulate denial-of-service attacks. In no event may the County perform a technical security integrity

review, penetration test, or vulnerability scan on the infrastructure which is used to support multiple customers.

2.3 Service Organization Control (SOC 2) Type II Audits.

2.3.1 Without limiting the generality of Sections 2.1 and 2.2, beginning on December 1, 2017, and annually thereafter, Provider shall, in accordance with Provider's schedule at its sole cost and expense, provide a SOC 2 Type II compliance report for the locations that are common Provider delivery centers (i.e., service centers from which services are provided to multiple clients) used to provide the Services. Customer may request from IBM up to two (2) soft copies of the most current multi-client SOC 2 Type II report on Controls Placed in Operation and Tests of Operating Effectiveness, as completed in accordance with the American Institute of Certified Public Accountants' ("AICPA") Statement on Auditing Standards No. 70 by a nationally recognized firm qualified to perform such audits. In the event Customer has questions about the SOC 2 Type II Report, IBM will provide reasonable assistance in answering such questions.

2.3.2 Provider shall notify the County if Provider modifies any of its internal controls which may impact the County, the Services and/or the Provider Records.

2.4 Audit Restrictions.

2.4.1 The County shall require its auditors, inspectors and regulators (other than auditors, inspectors and regulators employed or retained by a governmental entity) to conduct audits in such a fashion so as to not unreasonably interfere with Provider's normal course of business, and to agree to confidentiality provisions substantially similar to those set forth in Section 9 of the Terms and Conditions and to Provider's reasonable security obligations and procedures of which Provider has provided notice to the County.

2.4.2 The County shall provide Provider with reasonable prior notice of the County's audit, except for (a) audits by a governmental entity, in which case the County shall provide such prior notice as is practical under the circumstances, or (b) logical audits arising from the County's reasonable suspicion of fraud or security audits, in which case no notice is required.

2.5 Cooperation. Provider shall provide the County's auditors, inspectors and regulators such assistance and cooperation as they may reasonably require, including allowing the auditors and accounting and audit personnel to complete audits and reviews of financial statements and other financial reporting documents. In no event shall any audit include confidential information of the Provider that is not germane to the Services.

2.6 Remedial Action.

2.6.1 Promptly following any logical audit of the Computing Environment, including those set forth in Section 2.1, 2.2, and 2.3, the County and Provider shall meet to discuss the findings of the auditors or inspectors or regulators, whichever the case may be. In the event that such findings reveal any deficiencies and/or exceptions that affect the County (including, without limitation, if it is determined that Provider's internal

controls, in whole or in part, fail to constitute effective controls over financial reporting), then Provider shall prepare for the County's review and approval, an appropriate remedial action plan ("Remedial Action Plan") to promptly respond to the deficiencies that relate to the Services that are identified in, and changes suggested by, the audit report. The Remedial Action Plan shall be at the Provider's expense. A first draft of such Remedial Action Plan shall be delivered to the County within 10 Business Days after the earliest of (a) the Parties' initial meeting to discuss the findings of such auditors or inspectors or regulators, and (b) Provider's receipt of written notice from the County that contains a description of such deficiencies and/or exceptions, if the deficiencies and/or exceptions were identified by the County (or its independent auditor) through the exercise of its audit rights hereunder. Provider shall incorporate any the County comments on such draft within fifteen (15) business days after receipt of such comments. Upon approval of the final Remedial Action Plan by the County, Provider shall promptly implement such plan in accordance with any milestones or schedules set forth in such plan and in accordance with the SOW Change Control Procedure. Provider shall bear all costs and expenses associated with correcting all deficiencies and exceptions identified in the Remedial Action Plan.

2.6.2 If an audit reveals an overcharge, Provider shall promptly refund the overcharge. If an audit reveals an undercharge, Provider shall invoice the County for the amount of such undercharge in accordance with the invoicing procedures set forth in Schedule 3 of the Terms and Conditions. If an audit reveals that Provider has overcharged the County by five percent (5%) or more during the period to which the audit relates, the cost of such audit will be borne by Provider.

2.7 Internal Audit Support. Provider shall participate with the County in supporting the County's internal audit function, including providing such information as is requested by the County's internal or external auditors with respect to the operation of the County's IT environment, the County's control objectives, data, and such other County functions as may relate to or be affected by the Services. Provider will provide the County's audit team such assistance and cooperation as they may reasonably require, including, but not limited to:

2.7.1 review of processes used in the provision of the Services with the audit team;

2.7.2 completing audit questionnaires posed by the County's auditors to the extent such questionnaires relate to functions provided by Provider as part of the Services;

2.7.3 providing information regarding processes, procedures and controls used in the County IT environment and in the provision of the Services;

2.7.4 gathering and providing data to demonstrate compliance with processes, procedures and control objectives in connection with the performance of the Services; and

2.7.5 other procedures, not indicated herein but germane to the Services, to enable the County to comply with its obligations relative to the County's internal audit function and charter.

[End of Attachment C]

ATTACHMENT D
SECURITY AND DATA PROTECTION

September 15, 2015

1. COUNTY DATA

1.1. County Data shall be and remain the property of the County. Provider shall not utilize the County Data for any purpose other than that of rendering the Services under this Agreement.

1.2. Provider shall not, and Provider shall ensure that its Subcontractors do not, possess or assert any lien or other right against or to the County Data. Without the County's express written permission, which the County may give or withhold in its sole discretion, no County Data, or any part thereof, shall be disclosed, shared, sold, assigned, leased, or otherwise disposed of by Provider or commercially exploited by or on behalf of Provider, its employees, Subcontractors or agents.

1.3. Upon the County's request, at any time during this Agreement or at termination or expiration of this Agreement, Provider shall promptly provide a copy of the requested County Data to the County in such a format as stored by Provider or as may be agreed by the Parties. Also upon County's request, Provider shall destroy such data, sanitize any media upon which such data resided, and provide documentation of same, all in compliance with County Policies.

2. SECURITY

2.1. General. It shall be Provider's obligation to maintain the confidentiality and security of the County Data in connection with the performance of the Services, and without limiting the generality of Section 9 of the Terms and Conditions, Provider shall implement and/or use the Network management and maintenance applications and tools and appropriate fraud prevention and detection and encryption technologies as specified in a Statement of Work to protect such County Data and Applications as specified in the Standards and Procedures Manual; provided that Provider shall, at minimum, encrypt all Personal Information in transit and at rest. Provider shall provide all Services utilizing security technologies and techniques and in accordance with the County's security policies, procedures and other requirements made available to Provider in writing, including those relating to the prevention and detection of fraud or other inappropriate use or access of systems and Networks. To the extent any new or changes to the security policies, procedures and other requirements provided by the County to Provider would result in a material change to the Services, then the Parties may use the SOW Change Control Procedures to implement such new security policies, procedures and other requirements.

2.2. Information Access

2.2.1. Prior to performing any Services, all Provider Personnel who may have access to the County Data and Applications shall have executed agreements concerning access protection and data/software security consistent with the terms and conditions of this Agreement and in accordance with Provider standard processes and procedures.

2.2.2. Provider and all Provider Personnel shall comply with all the County Policies provided to Provider regarding data access, privacy and security, including those governing remote access to the County Data and the County's IT environment.

2.2.3. Provider shall provide to each of the Provider Personnel only such level of access as is minimally necessary for such person to perform the tasks and functions for which such person is responsible. Provider shall, upon request from the County, provide the County with an updated list of those Provider Personnel having access to the County's and/or its Affiliate's IT environment, Applications, and the County Data, and the level of such access. Provider shall maintain written policies that include auditing access levels and terminating access rights for off-boarded Provider Personnel.

2.2.4. Computer data, Equipment and Applications, including the County Data, provided by the County or accessed (or accessible) by Provider Personnel shall be used by Provider Personnel only in connection with the obligations provided hereunder, and shall not be commercially exploited by Provider or Provider Personnel in any manner whatsoever. Upon any failure of Provider or Provider Personnel to comply with the provisions of this Attachment D, in addition to such other remedies as may be available to the County under the Agreement, the County may restrict offending Provider Personnel from access to the County's IT environment or the County Data and may perform, and Provider shall permit the County to perform, forensic analysis on such Equipment utilized by such offending Provider Personnel.

3. DATA PROTECTION

3.1. Data Protection

3.1.1. General Compliance. During the Term, Provider shall comply with all Provider Laws including applicable Data Protection Laws. Provider shall not do, or cause or permit to be done, anything that may cause or otherwise result in a breach by the County of the same. Provider will oblige Provider Personnel to comply with all Provider Laws including applicable Data Protection Laws and only to collect, process or use any personal data received from or on behalf of the County for purposes of providing the Services and not to make personal data available to any Third Parties except as specifically authorized hereunder.

3.1.2. Protected Health Information. If Provider will have access to Protected Health Information, the Provider and the applicable County covered entity (or entities) will execute a Business Associate Agreement in a form agreed by the Parties. The Parties acknowledge and agree that a breach of any Business Associate Agreement by Provider or its agents or Subcontractors that is not cured within thirty (30) days of Provider's receipt of notice of such breach shall be deemed a material breach of this Agreement by Provider; provided that Provider shall have only a reasonable opportunity to cure where the County itself has an obligation that must be met in time shorter than thirty (30) days.

3.1.3. Criminal Justice Information. If Provider will have access to Criminal Justice Information in connection with the provision of the Services, Provider and the County shall execute an addendum to this Agreement governing the Provider's access to such Criminal Justice Information in an agreed upon form.

3.1.4. Provider Personnel. Provider will oblige its Provider Personnel to comply with applicable Data Protection Laws and to undertake only to collect, process or use any Personal Information received from or on behalf of the County for purposes of, and necessary to, providing the Services and not to make Personal Information available to any Third Parties except as specifically authorized hereunder.

3.1.5. Security. As part of the Services, Provider shall establish and at all times during the Term maintain reasonable and appropriate technical and organizational security procedures and measures to preserve the security and confidentiality of the County Data and the County Intellectual Property (including any County trade secrets) and to protect such County Data and County Intellectual Property against unauthorized or unlawful disclosure, unlawful access or processing, accidental loss, destruction or damage. Such security procedures shall include measures with respect to (i) the logical security in (A) Provider and the County IT environments for or in which the Services are provided; (B) the County IT environments to the extent logical security is included in the scope of the Services; and (C) Provider's connection to any County IT environments; (ii) the physical security at Provider's Facilities; and (iii) administrative security at all of the aforementioned.

(a) The security procedures described in Section 3.1.5 shall be deemed reasonable and appropriate if established and maintained with the more rigorous of:

(i) the County Policies (as modified by the County from time to time);

(ii) the security standards employed by Provider with respect to the protection of its similar property (for clarity, security for trade secrets at least as secure as the security Provider employs to protect its own trade secrets), as they may be upgraded or enhanced from time to time; or

(iii) generally accepted as then-current industry-standard security practices (including compliance with ISO/IEC 27000-series standards and successors thereto) with respect to the nature and scope of the County's businesses as upgraded and enhanced.

(b) At the County's reasonable request, Provider shall provide relevant assistance to the County to devise appropriate physical, technical and organization security measures. Provider shall notify the County if it becomes aware of any County security practices or procedures (or any lack thereof) that Provider believes do not comport with generally accepted security policies or procedures.

(c) Without limiting Provider's obligation to establish, implement and maintain appropriate safeguards under Section 3.1.5, the County shall have the right to establish back up security for data and to keep back up data and data files in its possession if it chooses.

(d) Without limiting the generality of this Section 3.1.5, Provider shall not attempt to or permit access to any County Data or to the County Software by any unauthorized individual or entity unless it must do so to perform the Services.

3.1.6. Provider as a Data Processor. Provider understands and acknowledges that, to the extent that performance of its obligations hereunder involves or necessitates the processing of Personal Information, it shall act only in accordance with the applicable Statement of Work; *provided, however*, that Provider shall notify the County if it receives instructions or directions from the County that Provider believes do not comport with generally accepted security polices or procedures and the County shall determine whether to modify such instructions or have Provider comply with such instructions unchanged. . Provider undertakes not to disclose Personal Information to any Third Party in any circumstances other than at the County’s specific written request or, after giving the County reasonable opportunity to intervene, in compliance with legal obligation.

3.1.7. Data Subject Right of Access and Rectification. If the County is required to provide information to a data subject regarding that individual’s Personal Information, Provider will reasonably cooperate with the County in providing such information to the full extent necessary to comply with Data Protection Laws. If a request by a data subject is made directly to Provider, Provider shall notify the County of such request as soon as reasonably practicable following receipt of such request (whether oral or in writing) and shall provide the County sufficient details and information as are required by the County to comply with its obligations under the Data Protection Laws. If, further to this request, the personal data must be rectified, Provider undertakes to amend the Personal Information as instructed by the County.

3.1.8. Audit. The County and its representatives shall have the right to audit as set forth in Attachment C (Compliance and Audit Standards).

3.1.9. Notification of Legal Requests. Provider shall contact the County upon receipt of any electronic discovery, litigation holds, discovery searches and expert testimonies related to the County’s data under this contract, or which in any way might reasonably require access to County Data. Provider shall not respond to subpoenas, service of process and other legal requests related to the County without first notifying the County and allowing the County a reasonable opportunity to intervene, unless prohibited by law from providing such notice.

3.1.10. Security and Privacy in Software Development Life Cycle. Provider shall implement an industry-recognized procedure that addresses the security and privacy of Personal Information as part of the software development life cycle in connection of the performance of the Services.

3.2. Data Security Breach. If Provider knows or has reason to know that a Data Security Breach has occurred (or potentially has occurred):

3.2.1. Provider shall provide to the County written notice of such Data Security Breach promptly following, and in no event later than three (3) Business Days following,

the discovery or suspicion of the occurrence of such Data Security Breach. Such notice shall summarize in reasonable detail the nature of the County Data that may have been exposed, and, if applicable, any persons whose Personal Information may have been affected, or exposed by such Data Security Breach. Provider shall not make any public announcements relating to such Data Security Breach without the County's prior written approval.

3.2.2. Provider shall also:

(a) reasonably cooperate with the County in connection with the investigation of such Data Security Breach;

(b) perform any corrective actions that are within the scope of the Services; and

(c) take all other necessary and appropriate remedial actions, including without limitation, at the request and under the direction of the County, providing notice to all persons whose Personal Information may have been affected or exposed by such Data Security Breach, whether or not such notice is required by Law;

3.2.3. The costs incurred in connection with Provider's obligations set forth in Section 3.2.2 shall be the responsibility of the Party whose acts or omissions caused or resulted in the Data Security Breach (subject to the limitation set forth in Section 13 of the Terms and Conditions) and may include:

(a) costs incurred in connection with (A) the development and delivery of legal notices or reports required by Law, including research and analysis to determine whether such notices or reports may be required; (B) the examination and repair of the County Data that may have been altered or damaged in connection with the Data Security Breach, and (C) containment, elimination and remediation of the Data Security Breach within the County's IT environment; and,

(b) with respect to any Data Security Breach involving Personal Information, costs incurred in connection with any of the following: (A) providing notice to all persons whose Personal Information may have been affected or exposed by such Data Security Breach, when such notice is required by Law; (B) the establishment of a toll-free telephone number, email address, and staffing of corresponding communications center where affected persons may receive information relating to the Data Security Breach; (C) the provision of credit monitoring/repair and/or identity restoration/insurance for affected persons for one (1) year following the announcement or disclosure of the Data Security Breach or following notice to the affected persons, whichever is later.

[End of Attachment D]

ATTACHMENT E

EXIT ASSISTANCE

September 15, 2015

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1. EXIT ASSISTANCE SERVICES

1.1 General. Upon any termination or expiration of the Agreement, in whole or in part, Provider shall provide the County and its designees such exit assistance services as are reasonably necessary to enable a complete transition of the affected Services to the County or the County's designee(s), including, but not limited to, all of the services, tasks and functions described in this Attachment E (Exit Assistance) (collectively, "Exit Assistance Services"). Provider shall provide the Exit Assistance Services regardless of the reason for the termination or expiration of the Agreement or any part thereof or Service thereunder.

1.2 Exit Assistance Period.

1.2.1 Provider shall:

(a) commence providing Exit Assistance Services at the County's request (i) up to six (6) months prior to the expiration of the Agreement, or (ii) in the event of termination of the Agreement or any Services hereunder, promptly following receipt of notice of termination from the Party giving such notice (such date notice is received, the "Termination Notice Date"), and

(b) continue to provide the Exit Assistance Services through the effective date of termination or expiration of the Agreement or the applicable terminated Services (as applicable, the "Termination Date") (such period, the "Exit Assistance Period"). At the County's option the Exit Assistance Period may be extended for a period of up to twelve (12) months after the Termination Date. In the event that the Exit Assistance Period extends past the then-current Term of the Agreement, the Term will be deemed automatically extended through the completion of the Exit Assistance Services .

1.2.2 The County shall provide notice regarding its request for Exit Assistance Services as follows:

(a) with respect to expiration of the Agreement, at least ninety (90) days prior to the date upon which the County requests that Provider commence Exit Assistance Services;

(b) in the event of termination of the Agreement pursuant to Section 15.2 of the Terms and Conditions (Termination Upon Change of Control or Change in Financial Condition), Section 15.5 of the Terms and Conditions (Termination for Convenience), or Section 15.8 of the Terms and Conditions (Termination for Non-Appropriation of Funds), at least sixty (60) days prior to the date upon which the County requests that Provider commence Exit Assistance Services;

(c) with respect to any other termination of the Agreement, thirty (30) days prior to the date upon which the County requests that Provider commence Exit Assistance Services; provided that, if thirty (30) days' notice is not

practicable given the cause of termination, such period of time as may be practicable under the circumstances.

1.2.3 Subject to Section 1.2.1 above, Provider's obligation to provide the Exit Assistance Services shall not cease until the Services have been completely transitioned in accordance with the obligations set forth herein to the County or the County's designee(s) to the County's satisfaction, including the performance by Provider of all asset transfers, if any, and other obligations of Provider set forth in this Attachment E (Exit Assistance).

1.3 Exit Assistance Services. Provider will perform the Exit Assistance Services in a manner to support the efficient and orderly transfer of the terminated Services to the County such that:

1.3.1 the impact on the County's operations (including its personnel and Using Agencies) is minimized;

1.3.2 the internal and Third Party costs incurred by the County and the County's designee(s) in transferring the terminated Services are minimized;

1.3.3 the terminated Services continue to be performed by Provider until the Termination Date has occurred without disruption or deterioration except as approved by the County and included in the Exit Assistance Plan (and any such disruption or deterioration will be minimized);

1.3.4 any disruption or deterioration of the terminated Services following the Termination Date (except as approved by the County and included in the Exit Assistance Plan) is minimized, to the extent the same is within the reasonable control of Provider;

1.3.5 the County or the County's designee(s) is provided with any information held by Provider or its Subcontractor(s) (and there is a knowledge transfer) that is reasonably required to perform services replacing or reasonably equivalent to the terminated Services following the Termination Date;

1.3.6 the County is able, at its option, to receive services similar to the terminated Services, independently of Provider, following termination; and

1.3.7 if there is more than one the County designee, then the Exit Assistance Services will be performed in respect of each the County designee.

1.4 Payment for Exit Assistance Services.

1.4.1 Exit Assistance Services shall be deemed a part of the Services and included within the Fees to the extent that Provider is able to provide such Exit Assistance Services without adversely impacting the ordinary course of Provider's provision of the continuing Services, using then-existing resources used to perform such Exit Assistance Services, without adversely affecting Service Levels and without incurring additional out-of-pocket expenses; provided, however, that the Parties shall

reach agreement on, and set forth in a separate schedule, those Exit Assistance Services that will require no additional charges over and above those set forth in the applicable Statement of Work, and those Exit Assistance Services that are either new or require additional charges (the “Additional Exit Assistance Fees”).

(a) Provider will provide to the County a reasonably detailed proposal for the Additional Exit Assistance Fees reflecting reasonable terms and conditions for the applicable Exit Assistance Services, including a proposal of the Additional Exit Assistance Fees.

(b) If the County and Provider are unable to successfully negotiate such a proposal as provided in Section 1.4.1(a), and the County still desires that Provider perform the applicable Exit Assistance Services, Provider will perform such Exit Assistance Services at the applicable Personnel Rates.

1.4.2 If the County terminates this Agreement for any reason other than for cause pursuant to Section 15.1 of the Terms and Conditions, or if this Agreement expires without renewal, then the County shall pay the applicable Exit Assistance Fees (including any Additional Exit Assistance Fees) until the Exit Assistance Services are completed or terminated, including to the extent such Exit Assistance Services are provided beyond the applicable Termination Date.

1.4.3 If this Agreement is terminated by the County for cause pursuant to Section 15.1 of the Terms and Conditions, then (a) the County shall pay the applicable Exit Assistance Fees until the Exit Assistance Services are completed or terminated, including to the extent such Exit Assistance Services are provided beyond the applicable Termination Date; and (b) no Additional Exit Assistance Fees shall apply, provided that the County shall use Commercially Reasonable Efforts to mitigate the need for Exit Assistance Services that would require additional charges over and above those set forth in the Agreement.

1.4.4 If this Agreement is terminated by Provider for cause pursuant to Section 15.3 of the Terms and Conditions, Provider may require that the County pay for Exit Assistance Services in advance on a monthly basis based on the Parties’ good faith estimate of the Additional Exit Assistance Fees to be rendered that month.

1.4.5 If the County exercises its rights under Section 1.2.1(b), Provider will provide to the County a price proposal for the extension of the applicable Exit Assistance Services. If the County and Provider are unable to successfully negotiate such a proposal, and the County still desires to extend the Exit Assistance Services, Provider will perform such Exit Assistance Services at the applicable Personnel Rates and shall perform any remaining Managed Services at the applicable Managed Services Fees.

1.4.6 If any Services are provided hereunder at the Personnel Rates and Managed Services Fees beyond the Term, Provider may adjust such Personnel Rates and Managed Services Fees to reasonably account for inflation from the end of the Term.

1.5 Exit Assistance Plan.

1.5.1 Provider shall develop a plan for the delivery of the Exit Assistance Services (the “Exit Assistance Plan”) as follows:

(a) Provider shall provide the County a detailed draft Exit Assistance Plan that complies with this Agreement for the County’s comments and review within thirty (30) days following the earlier of (i) the Termination Notice Date, or (ii) the date that is six (6) months prior to the expiration of the Term;

(b) Provider shall attend any meetings reasonably requested by the County to discuss and refine the Exit Assistance Plan;

(c) Provider shall incorporate the County’s reasonable comments and changes into the Exit Assistance Plan (and any subsequent version of the Exit Assistance Plan) and submit such draft for further review and refinement pursuant to this Section 1.5.1 until a final Exit Assistance Plan is approved by the County; and

(d) The Parties shall work in good faith and use Commercially Reasonable Efforts to reach agreement on a final Exit Assistance Plan within sixty (60) days following the earlier of (x) the Termination Notice Date, or (y) the date that is six (6) months prior to the expiration of the Term.

1.5.2 The Exit Assistance Plan will clearly and in detail:

(a) describe responsibilities and actions to be taken by Provider in performing the Exit Assistance Services, without limiting any other actions or responsibilities requested by the County pursuant to this Attachment E (Exit Assistance) during the Exit Assistance Period;

(b) describe in detail any County Responsibilities which are necessary for Provider to perform the Exit Assistance Services (including estimates of the specific staffing or resources required to fulfill such County Responsibilities);

(c) describe how any transfer of Assets and any novation, assignment or transfer of contracts will be achieved during the Exit Assistance Period;

(d) specify the detailed information that will be provided by Provider (including that information required under Sections 2.3, 2.4, and 2.5 of this Attachment E (Exit Assistance));

(e) set out the timetable for the transfer of each element of the terminated Services (including key milestones to track the progress);

(f) identify a responsible party for each service, task and responsibility to be performed under the Exit Assistance Plan; and

(g) specify reasonable acceptance criteria and testing procedures to confirm whether the transfer of the terminated Services has been successfully completed.

1.5.3 Following the County's approval of, and authorization to proceed with the final Exit Assistance Plan, Provider will perform the Exit Assistance Services in accordance with the Exit Assistance Plan.

1.5.4 During the Exit Assistance Period, either Party may propose changes to the Exit Assistance Plan. Provider will proactively recommend changes that are appropriate or desirable. Any changes to the Exit Assistance Plan will be as reasonably proposed by either Party, subject to the other Party's approval (such approval not to be unreasonably withheld).

1.5.5 Notwithstanding the provisions of Section 1.5.1, the County may elect to provide the initial draft of the Exit Assistance Plan, in which event such draft shall be provided to Provider and shall become the basis for the discussion and refinement process set forth in the remaining steps of Section 1.5.1.

1.6 Exit Assistance Management.

1.6.1 Provider will appoint a senior project manager (the "Provider Exit Assistance Manager") who will be responsible for the overall performance of the Exit Assistance Services and who will be the primary point of contact for the County in respect of the Exit Assistance Services during the Exit Assistance Period. Provider will appoint such representative on or before a date that is thirty (30) days following the earlier of (a) the Termination Notice Date, or (b) the date that is six (6) months prior to the expiration of the Term. The County will appoint a senior project manager who will be the primary point of contact for Provider during the Exit Assistance Period (the "County Exit Assistance Manager").

1.6.2 Both Parties will use Commercially Reasonable Efforts to promptly resolve any Exit Assistance Services issues or disputes by the Provider Exit Assistance Manager and the County Exit Assistance Manager, but any disputes that cannot be resolved will be escalated in accordance with Section 11 of Schedule 1 (Relationship Management).

1.6.3 Provider will manage and implement its responsibilities with respect to Exit Assistance Services in accordance with the County's reasonable directions, including:

(a) resolving any issues arising with respect to the Exit Assistance Services;

(b) defining an escalation process, as approved by the County, to be used if there is a failure in any part of the transition; and

(c) establishing, as directed by the County, the necessary communications and interfaces between Provider, Provider's Subcontractors, groups and individuals within the County receiving the Services, and the County's designee.

1.6.4 Where requested by the County, Provider will provide individuals with the required expertise to perform Exit Assistance Services, even if those individuals are not currently performing Services.

1.6.5 Provider will monitor progress of all services, tasks and responsibilities in the Exit Assistance Plan (whether the responsibility of Provider, the County or any Third Party) against the Exit Assistance Plan and promptly escalate to the County any failures (or potential failures) to perform any services, tasks or responsibilities, including failures by the County or the County's designee to perform any County Responsibilities.

1.6.6 Provider will provide reports to the County not less than once a week which:

(a) describe the progress of the Exit Assistance Services against the Exit Assistance Plan; and

(b) identify any risks encountered during the performance of the Exit Assistance Services and propose steps to mitigate such risks.

1.6.7 The Provider Exit Assistance Manager and County Exit Assistance Manager will meet on a weekly basis (or as otherwise required by the County) during the Exit Assistance Period to review the status of the Exit Assistance Plan.

1.6.8 The County may appoint, during the Exit Assistance Period, a County designee to operationally manage Provider in its performance of the Exit Assistance Services and any terminated Services. Provider will follow the direction of such County designee only to the extent that:

(a) Provider would be obliged to follow the County's directions under this Agreement; and

(b) The County has authorized the County designee and notified Provider of such authorization.

2. SPECIFIC EXIT ASSISTANCE REQUIREMENTS

The Exit Assistance Services shall include, but are not limited to, the following:

2.1 Bid Assistance.

2.1.1 At any time during the Term (whether before or during the Exit Assistance Period), Provider will, as requested by the County, reasonably cooperate and provide assistance with any bid or tender process that the County runs in relation to any of the terminated Services (or potentially terminated Services), including:

(a) providing information, reports and data for inclusion in the County's request for information, request for proposals, due diligence activities or similar documents;

(b) assisting the County by providing answers to questions raised by Third Parties participating in the County's competitive solicitation process; and

(c) allowing Third Parties participating in the County's competitive solicitation process to perform reasonable due diligence activities in respect of the relevant Services, including providing reasonable access to Key Provider Personnel (including Key Provider Personnel that are not located at County Facilities) if requested by the County; provided, that such due diligence will be performed in a reasonable manner so as not to disrupt Provider's performance of the Services.

2.1.2 The bid assistance to be performed pursuant to Section 2.1 of this Attachment E (Exit Assistance) will be at least to the level:

(a) that would be required for reasonably skilled and experienced Third Party service providers to:

(i) prepare an informed, non-qualified offer for the relevant terminated Services; and

(ii) not be disadvantaged compared to Provider (if Provider is invited to participate) in respect of access to information; and

(b) in any event, no less than the cooperation and assistance provided by the County to Provider prior to the Effective Date.

2.1.3 The bid assistance set forth in this Section 2.1 will not include any services that would preclude Provider from submitting a proposal in connection with such bid or tender process unless (a) Provider has determined that it will not participate in such bid or tender process or (b) Provider is otherwise disqualified from participating in such bid or tender process.

2.2 Return of Materials. At the County's request, Provider will promptly return or provide to the County, in the format and on the media reasonably requested by the County, all County-Provided Software, County Data, and Developed Intellectual Property. At the County's request, Provider will orderly vacate the County's Facilities and return all security badges and keys.

2.3 Information.

2.3.1 As requested by the County, Provider will promptly (and in any event within five (5) Business Days following the request) provide the County or the County's designee with:

(a) the information and data generally described in Sections 2.4 and 2.5; and

(b) any other information relating to the Services or the County's IT or operating environment which would be required by a reasonably skilled and experienced provider of services to assume and to continue to perform the Services following the Termination Date without disruption or deterioration.

2.3.2 The County may provide any of the information described in Section 2.3.1 above to the County's designee (or potential designee).

2.4 Database Contents. Provider will provide County-specific data whether held in databases or otherwise, in the format provided by the County to Provider or as otherwise agreed by the Parties reasonably specified by the County (and provide sufficient information requested by the County about the format and structure of the data to enable such data to be used in substantially the manner in which Provider utilized such data), including:

2.4.1 the reports, associated raw data and any other data held in the Reports Database;

2.4.2 any other County Data held by Provider;

2.4.3 other County-specific operational data and information as requested by the County, including:

(a) SLA statistics;

(b) operational logs;

(c) the Standards and Procedures Manual;

(d) any other processes and procedures relating to the Services;

(e) Incident and Problem logs for at least the previous two (2) years;

(f) security features;

(g) passwords and password control policies;

(h) documentation of the demarcation points for each component of the Services, including as between the County and Provider and as between Provider and each of its Subcontractors that perform Services for the County; and

(i) identification of work planned or in progress as of the Termination Date, including the current status of such work and projects (and Provider will assist the County or its designee to stabilize such work and Projects for continuity during transition and to provide a reasonable level of training to achieve smooth and orderly transfer of responsibilities).

2.5 Subcontractors and Third Party Contracts. Provider's agreements with Third Parties relating to this Agreement, including its Subcontractors, shall not include any terms that would prohibit or otherwise restrict such Third Parties from entering into agreements with the County, the County Affiliates and/or the County designees (whether directly or through an assignment) as provided herein. This provision shall not apply to Provider Enterprise Subcontracts.

2.6 Knowledge Transfer. During the Exit Assistance Period, Provider will provide knowledge transfer services to the County or the County's designee as reasonably requested by the County in order to allow the County or the County's designee to fully assume, become self-reliant with respect to, and continue without interruption, the provision of the terminated Services, including:

2.6.1 explaining procedures, tools, utilities, standards and operations used to perform the terminated Services;

2.6.2 answering questions in respect of the information provided pursuant to Sections 2.3, 2.4, and 2.5; and

2.6.3 allowing personnel of the County or the County's designee to work alongside Provider Personnel on a collaborative basis, to shadow their role and enable knowledge transfer.

2.7 Cooperation. Provider will cooperate with (and cause any Subcontractors to cooperate with) the County or the County's designee during the Exit Assistance Period, including in the manner specified in Section 6 of Schedule 1 (Relationship Management).

2.8 Change Freeze. Unless otherwise approved by the County or required on an emergency basis to maintain the provision of the Services in accordance with the SLAs, during the period beginning with the six (6) month period prior to the Termination Date and continuing through the termination of the Exit Assistance Period, Provider will not make or authorize material Changes to:

2.8.1 the terminated Services (including to any Software or other facilities used to perform the terminated Services), other than Changes necessary for the continued performance of the Services in accordance with the Performance Standards; and

2.8.2 any contracts entered into by Provider that relate to the Services (including contracts with Subcontractors).

[End of Attachment E]

ATTACHMENT F

RESERVED

September 15, 2015

ATTACHMENT G
REQUIRED INSURANCE COVERAGE

September 15, 2015

1. REQUIRED INSURANCE COVERAGE

Prior to the Effective Date of this Agreement, Provider, at its cost, shall secure and maintain at all times, unless specified otherwise, until completion of the Term of this Agreement the insurance specified below.

Nothing contained in these insurance requirements is to be construed as limiting the extent of Provider's responsibility for payment of damages resulting from its operations under this Agreement.

The Cook County Department of Risk Management maintains the right to modify, delete, alter or change these requirements. Any such changes to these requirements may result in changes that are subject to the SOW Change Control Process set forth in Schedule 1 – Relationship Management.

1.1 Coverages.

1.1.1 Workers Compensation Insurance.

Workers' Compensation shall be in accordance with the laws of the State of Illinois or any other applicable jurisdiction.

The Workers Compensation policy shall also include the following provisions:

Employers' Liability coverage with a limit of:

\$500,000 each Accident;
\$500,000 each Employee; and
\$500,000 Policy Limit for Disease.

Broad form all states coverage.

1.1.2 Commercial General Liability Insurance.

The Commercial General Liability shall be on an occurrence form basis to cover bodily injury and property damage including loss of use.

General Liability limits shall not be less than \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury and property damage. The General Liability policy shall include the following coverages:

- (a) All premises and operations;
- (b) Contractual Liability; and
- (d) Products/Completed Operations.

1.1.3 Automobile Liability Insurance.

When any autos are used in the performance of this Agreement, Provider shall secure Commercial Automobile Liability to cover all owned, non-owned and hired automobiles, trucks and trailers. The Comprehensive Automobile Liability limits shall not be less than the following:

Liability - All Autos: Bodily Injury & Property Damage - \$1,000,000 per Occurrence.

1.1.4 Umbrella/Excess Liability Insurance.

In addition to the coverages and limits specified above, Provider shall secure and maintain a limit of liability no less than:

- a. \$2,000,000 each occurrence for all liability; and
- b. \$2,000,000 in the aggregate.

1.1.5 Professional Errors & Omissions Insurance.

Professional Liability insurance covering any and all claims arising out of the performance or nonperformance of professional services for the County under this Agreement. This professional liability insurance shall remain in force for the life of the Provider's obligations under this Agreement, and shall have a limit of liability of not less than \$5,000,000 per claim. If any such policy is written on a claims made form, the retroactive date shall be prior to or coincident with the Effective Date of this Agreement. Claims made form coverage, or extended reporting following the expiration or termination of this contract, shall be maintained by Provider for a minimum of three (3) years following the expiration or early termination of this contract and the Provider shall annually provide the County with proof of renewal. Subcontractors performing professional services for the Provider must maintain limits of not less than \$1,000,000 per claim with the same terms in this section.

1.2 Additional Requirements.

1.2.1 Additional Insured.

The County, its officials, employees and agents shall be named as additional insureds under the Commercial General Liability, Automobile and Umbrella/Excess Liability policy. Provider's insurance shall be primary and non-contributory with any insurance maintained by the County. Any insurance or self-insurance maintained by the County shall be excess of the Provider's insurance and shall not contribute with it. The full policy limits and scope of

protection shall apply to the County as an additional insured even if they exceed the minimum insurance limits specified above.

1.2.2 Qualification of Insurers.

All insurance companies providing coverage shall be licensed or approved by the Department of Insurance, State of Illinois, and shall have a financial rating no lower than (A-) VII as listed in A.M. Best's Key Rating Guide, current edition or interim report. Companies with ratings lower than (A-) VII will be acceptable only upon written consent of the Cook County Department of Risk Management. The insurance limits required herein may be satisfied by a combination of primary, umbrella and/or excess liability insurance policies.

1.2.3 Insurance Notices.

IBM will provide notice to the Office of the Chief Procurement Officer at least thirty (30) days prior to the effective date of any cancellation, non-renewal or significant modification of such policies.

Prior to the date on which Provider commences performance of its part of the work, Provider shall furnish to the County certificates of insurance maintained by Provider.

In no event shall any failure of the County to receive Certificates of Insurance required hereof or to demand receipt of such Certificates of Insurance be construed as a waiver of Provider's obligations to obtain insurance pursuant to these insurance requirements.

1.2.1 Waiver of Subrogation Endorsements.

The Commercial General Liability and the Automobile Liability insurance policies must be subject to a waiver of subrogation in favor of the County unless such policy specifically prohibits such a waiver. The Workers Compensation insurance policy will be subject to a waiver of subrogation in favor of the County, provided, however, that waiver of subrogation does not apply in instances of gross negligence on the part of the customer, where gross negligence is defined to mean carelessness that is reckless disregard for the safety of others.

[End of Attachment G]

ATTACHMENT H
KEY PROVIDER PERSONNEL

September 15, 2015

1. KEY PROVIDER PERSONNEL

The Key Provider Personnel are set forth in Schedule 2A (Statement of Work).

[End of Attachment H]

ATTACHMENT I
APPROVED SUBCONTRACTORS

September 15, 2015

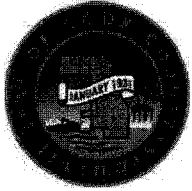
1. APPROVED SUBCONTRACTORS

1.1 The following are Subcontractors that are approved by the County, as of the Effective Date, for use in performing the Services as subcontractors:

Approved Subcontractor	Nature of Relationship	Key Subcontractor (Y/N)
Clarity Partners, LLC	Direct Subcontractor (T&M staff augmentation services and Fixed Price, end deliverable responsibility services)	Yes
The William Everett Group	Direct Subcontractor (T&M staff augmentation services)	Yes
Next Generation, Inc.	Direct Subcontractor (T&M staff augmentation services and Fixed Price, end deliverable responsibility services)	Yes
Level-1 Global Solutions, LLC	Direct Subcontractor (T&M staff augmentation services)	Yes

[End of Attachment I]

BOARD AGENDA



Board of Commissioners of Cook County

118 North Clark Street
Chicago, IL

Legislation Details (With Text)

File #: 15-4318 **Version:** 1 **Name:** IBM Corporation, Chicago, Illinois
Type: Contract (Technology) **Status:** Approved
File created: 7/2/2015 **In control:** Technology and Innovation Committee
On agenda: 7/29/2015 **Final action:** 9/9/2015
Title: PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Enterprise Resource Planning (ERP)

Vendor: IBM Corporation, Chicago, Illinois

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

Good(s) or Service(s): Software and System Integration and Managed Services for Oracle E-Business Suite ERP Software

Contract Value: \$66,546,900.00

Contract period: 9/15/2015- 9/14/2020

Potential Fiscal Year Budget Impact: FY 2015 \$3,185,819.00 FY 2016 \$23,416,362.00 FY 2017 \$21,660,803.00 FY 2018 10,129,052.00 FY 2019 \$4,409,816.00 FY 2020 \$3,745,048.00.

Accounts: 1502909519.560451.8300

Contract Number(s): 1418-14268

Concurrence(s):

The vendor has met the Minority and Women Owned Business Enterprise Ordinance.

The Chief Procurement Officer concurs.

The Bureau of Technology concurs

Summary: Upon successful implementation, the E Business Suite platform will allow for process improvements, best practices, streamlined and automated workflows and real time reporting and analytics for finance and human resources related functions across all County agencies.

Request for Proposals (RFP) procedures were followed in accordance with the Cook County Procurement Code. IBM was recommended based on established evaluation criteria.

Sponsors:

Indexes: F. THOMAS LYNCH, Director, Enterprise Resource Planning (ERP)

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
9/9/2015	1	Board of Commissioners	approved	Pass
9/8/2015	1	Technology and Innovation Committee	recommended for approval	Pass

7/29/2015 1 Board of Commissioners referred Pass

PROPOSED CONTRACT (TECHNOLOGY)

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CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/24/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc. New York, NY 199 Water Street New York, NY 10038-3551 USA	CONTACT NAME: PHONE (A/C No, Ext): (866) 283-7122 FAX (A/C, No): (800) 363-0105														
	E-MAIL ADDRESS: <table border="1" style="width:100%"> <tr> <th style="width:80%">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Swiss Re International SE</td> <td>1121405</td> </tr> <tr> <td>INSURER B:</td> <td></td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Swiss Re International SE	1121405	INSURER B:		INSURER C:		INSURER D:		INSURER E:		INSURER F:
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A: Swiss Re International SE	1121405														
INSURER B:															
INSURER C:															
INSURER D:															
INSURER E:															
INSURER F:															
INSURED International Business Machines Corp. & Any Other Subsidiary Corp. Owned or Controlled by the Insured 1 New Orchard Road Armonk, NY 10504 United States															

COVERAGES **CERTIFICATE NUMBER:** 230880 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y/N <input checked="" type="checkbox"/> N/A				<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Professional Liability/Errors & Omissions		F3 4273	11/1/2014	11/1/2015	Limit: \$5,000,000 per claim \$5,000,000 in the aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Job Description/Project Name/Project Number: Cook County ERP implementation
If there is a question regarding this certificate please contact Brendan Heneghan (Email: brendan@us.ibm.com Phone:)

CERTIFICATE HOLDER

Cook County
118 N Clark St.
Chicago, Illinois 60602-1304
United States

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Authorized Representative:
Aon Risk Services Northeast,



ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Northeast, Inc. 199 Water Street New York, NY 10038 Phone: 866.266.7475 Fax: 866.467.7847	NAMED INSURED International Business Machines Corp. 1 New Orchard Road Armonk, NY 10504 United States
EFFECTIVE DATE: 01/01/2015	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE

Waiver of Subrogation is not applicable where prohibited or limited by the laws of the jurisdiction in which the work is to be performed. Waiver of Subrogation will not apply in instances of (customer's) Gross Negligence, if the exclusion of such Gross Negligence is not prohibited by any jurisdiction.

Additional Language: The waiver of subrogation does not apply to gross negligence in favor of the County, provided, however, that waiver of subrogation does not apply in instances of gross negligence on the part of the customer, where gross negligence is defined to mean carelessness that is reckless disregard for the safety of others

Project: Cook County ERP implementation

If there is a question regarding this certificate please contact Brendan Heneghan
(Email: brendan@us.ibm.com Phone:)

All operations incidental to the conduct of insured's business in the United States of America.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/22/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc. New York, NY 199 Water Street New York, NY 10038-3551 USA	CONTACT NAME: PHONE (A/C, No, Ext): _____ FAX (A/C, No): _____ E-MAIL ADDRESS: _____	
	INSURER(S) AFFORDING COVERAGE INSURER A : ACE Property & Casualty Insurance Company	NAIC # 20699
INSURED International Business Machines Corp. & Any Other Subsidiary Corp. Owned or Controlled by the Insured 1 New Orchard Road Armonk, NY 10504 United States	INSURER B : 	

COVERAGES

CERTIFICATE NUMBER: 230879

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____						EACH OCCURRENCE	\$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
							MED EXP (Any one person)	\$
							PERSONAL & ADV INJURY	\$
							GENERAL AGGREGATE	\$
							PRODUCTS - COMP/OP AGG	\$
								\$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident)	\$
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DED _____ RETENTION \$ _____			XOO G2763848A	5/21/2015	5/21/2016	EACH OCCURRENCE	\$ \$3,000,000.00
	<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE						AGGREGATE	\$ \$3,000,000.00
								\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
							E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Automobile Liability limits over \$5,000,000 are evidenced by the Umbrella/Excess Liability policy. Please see page 2 for any additional language.

CERTIFICATE HOLDER

Cook County
118 N Clark St.
Chicago, Illinois 60602-1304
United States

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Authorized Representative:
Aon Risk Services Northeast, Inc.

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ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Northeast, Inc. New York, NY 199 Water Street New York, NY 10038-3551 USA	NAMED INSURED International Business Machines Corp. & Any Other Subsidiary Corp. Owned or Controlled by the Insured 1 New Orchard Road Armonk, NY 10504 United States
EFFECTIVE DATE: 5/21/2015	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE

Project: Cook County ERP Implementation

If there is a question regarding this certificate please contact Brendan Heneghan
(Email: brendan@us.ibm.com Phone:)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/22/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc. New York, NY 199 Water Street New York, NY 10038-3551 USA	CONTACT NAME: PHONE (A/C, No, Ext): (866) 283-7122	FAX (A/C, No): (800) 363-0105
	E-MAIL ADDRESS:	
INSURED International Business Machines Corp. & Any Other Subsidiary Corp. Owned or Controlled by the Insured 1 New Orchard Road Armonk, NY 10504 United States	INSURER(S) AFFORDING COVERAGE	
	INSURER A : ACE American Insurance Company	NAIC # 22667
INSURER B :		

COVERAGES **CERTIFICATE NUMBER:** 230877 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	HDO G27393652	5/21/2015	5/21/2016	EACH OCCURRENCE	\$ 2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 2,000,000
							MED EXP (Any one person)	\$ 25,000
							PERSONAL & ADV INJURY	\$ 2,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ included
								\$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	X	X	ISA H08857313	5/21/2015	5/21/2016	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DED RETENTION \$						EACH OCCURRENCE	\$
							AGGREGATE	\$
								\$
	<input type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
							E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Please see page 2 for any additional language.

CERTIFICATE HOLDER Cook County 118 N Clark St. Chicago, Illinois 60602-1304 United States	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Authorized Representative: Aon Risk Services Northeast, Inc.
--	--



ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Northeast, Inc. New York, NY 199 Water Street New York, NY 10038-3551 USA	NAMED INSURED International Business Machines Corp. & Any Other Subsidiary Corp. Owned or Controlled by the Insured 1 New Orchard Road Armonk, NY 10504 United States
EFFECTIVE DATE: 5/21/2015	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE

Cook County is hereby named as an additional insured on General Liability policy but only to the extent that their interest may appear.

Cook County is hereby named as an additional insured on Auto Liability policy but only to the extent that their interest may appear.

Waiver of subrogation is applicable to General Liability and Auto Liability policies listed above.

Project: Cook County ERP Implementation

If there is a question regarding this certificate please contact Brendan Heneghan
(Email: brendan@us.ibm.com Phone:)

All operations incidental to the conduct of insured's business in the United States of America.

IDENTIFICATION OF SUBCONTRACTOR/SUPPLIER/SUBCONSULTANT

Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form

OCPO ONLY: <input type="checkbox"/> Disqualification <input checked="" type="checkbox"/> Check Complete
--

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract. In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.:	Date: September 22, 2015
Total Bid or Proposal Amount: \$66,546,900	Contract Title: Software and System Integration and Managed Services for Oracle E-Business Suite ERP Software
Contractor: IBM Corporation	Subcontractor/Supplier/ Subconsultant to be added or substitute: The William Everett Group
Authorized Contact for Contractor: James Northern	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Ellen Rozelle Turner
Email Address (Contractor): jlnorthe@us.ibm.com	Email Address (Subcontractor): e.turner@wegrp.com
Company Address (Contractor): 71 S. Wacker Drive	Company Address (Subcontractor): 33 E. Wacker Drive, Suite 3900
City, State and Zip (Contractor): Chicago, IL 60606	City, State and Zip (Subcontractor): Chicago, IL 60601
Telephone and Fax (Contractor) Telephone: 952-250-9970	Telephone and Fax (Subcontractor) T: 312-564-5680 / F: 312-929-4553
Estimated Start and Completion Dates (Contractor) October 1,2015 – Sept 14, 2020	Estimated Start and Completion Dates (Subcontractor) October 1,2015 – Sept 14, 2020

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Organization Change Management and Training	\$4,357,000

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

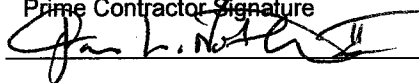
Contractor

IBM Corporation

Name

James L. Northern, II

Prime Contractor Signature



Date

Sept. 23, 2015

Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form

OCPO ONLY: <input type="checkbox"/> Disqualification <input type="checkbox"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract. In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.:	Date: September 22, 2015
Total Bid or Proposal Amount: \$66,546,900	Contract Title: Software and System Integration and Managed Services for Oracle E-Business Suite ERP Software
Contractor: IBM Corporation	Subcontractor/Supplier/ Subconsultant to be added or substitute: Clarity Partners, Inc.
Authorized Contact for Contractor: James Northern	Authorized Contact for Subcontractor/Supplier/ Subconsultant: David Namkung
Email Address (Contractor): jlnorthe@us.ibm.com	Email Address (Subcontractor): d.namkung@claritypartners.com
Company Address (Contractor): 71 S. Wacker Drive	Company Address (Subcontractor): 227 West Monroe Street #3950
City, State and Zip (Contractor): Chicago, IL 60606	City, State and Zip (Subcontractor): Chicago, IL 60606
Telephone and Fax (Contractor) Telephone: 952-250-9970	Telephone and Fax (Subcontractor) T: 312-920-0550 / F: 312-920-0554
Estimated Start and Completion Dates (Contractor) October 1,2015 – Sept 14, 2020	Estimated Start and Completion Dates (Subcontractor) October 1,2015 – Sept 14, 2020

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Hyperion Budget Prep and Reporting with end deliverable responsibility, EBS Technical and Functional Implementation Roles	\$7,624,600

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor
 IBM Corporation

Name
 James L. Northern, II

Prime Contractor Signature Date
Sept. 23, 2015

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY: <input type="checkbox"/> Disqualification <input type="checkbox"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract. In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.:	Date: September 22, 2015
Total Bid or Proposal Amount: \$66,546,900	Contract Title: Software and System Integration and Managed Services for Oracle E-Business Suite ERP Software
Contractor: IBM Corporation	Subcontractor/Supplier/ Subconsultant to be added or substitute: Level-1 Global Solutions, LLC
Authorized Contact for Contractor: James Northern	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Angela O'Banion
Email Address (Contractor): jlnorthe@us.ibm.com	Email Address (Subcontractor): aobanion@level-1.com
Company Address (Contractor): 71 S. Wacker Drive	Company Address (Subcontractor): Media Tower, 22 W. Washington St, #1500
City, State and Zip (Contractor): Chicago, IL 60606	City, State and Zip (Subcontractor): Chicago, IL 60602
Telephone and Fax (Contractor) Telephone: 952-250-9970	Telephone and Fax (Subcontractor) T: 312-202-3300 /F: 312-202-3310
Estimated Start and Completion Dates (Contractor) October 1, 2015 – Sept 14, 2020	Estimated Start and Completion Dates (Subcontractor) October 1, 2015 – Sept 14, 2020

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Infrastructure and technical roles	\$817,000

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor
 IBM Corporation

Name
 James L. Northern, II

Prime Contractor Signature Date

Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form

OCPO ONLY: <input type="checkbox"/> Disqualification <input type="checkbox"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract. In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.:	Date: September 22, 2015
Total Bid or Proposal Amount: \$66,546,900	Contract Title: Software and System Integration and Managed Services for Oracle E-Business Suite ERP Software
Contractor: IBM Corporation	Subcontractor/Supplier/ Subconsultant to be added or substitute: Next Generation Inc.
Authorized Contact for Contractor: James Northern	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Darrell Higueros
Email Address (Contractor): jlnorthe@us.ibm.com	Email Address (Subcontractor): dhigueros@nxtgeninc.com
Company Address (Contractor): 71 S. Wacker Drive	Company Address (Subcontractor): 155 N. Wacker Drive, Suite 4250
City, State and Zip (Contractor): Chicago, IL 60606	City, State and Zip (Subcontractor): Chicago, IL 60606
Telephone and Fax (Contractor) Telephone: 952-250-9970	Telephone and Fax (Subcontractor) T: 312-953-7514 / F: 312-739-0523
Estimated Start and Completion Dates (Contractor) October 1, 2015 – Sept 14, 2020	Estimated Start and Completion Dates (Subcontractor) October 1, 2015 – Sept 14, 2020

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO

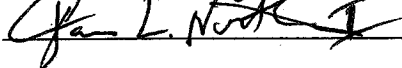
<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
HCM / Payroll scope with end deliverable responsibility, EBS Technical and Functional Roles	\$6,264,000

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor
 IBM Corporation

Name
 James L. Northern, II

Prime Contractor Signature



Date

Sept. 23, 2015

MBE/WBE UTILIZATION PLAN

MBE/WBE UTILIZATION PLAN (SECTION 1)

BIDDER/PROPOSER HEREBY STATES that all MBE/WBE firms included in this Plan are certified MBEs/WBEs by at least one of the entities listed in the General Conditions.

I. BIDDER/PROPOSER MBE/WBE STATUS: (check the appropriate line)

_____ Bidder/Proposer is a certified MBE or WBE firm. (If so, attach copy of appropriate Letter of Certification)

_____ Bidder/Proposer is a Joint Venture and one or more Joint Venture partners are certified MBEs or WBEs. (If so, attach copies of Letter(s) of Certification, a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the Joint Venture and a completed Joint Venture Affidavit – available from the Office of Contract Compliance)

X Bidder/Proposer is not a certified MBE or WBE firm, nor a Joint Venture with MBE/WBE partners, but will utilize MBE _____ and WBE firms either directly or indirectly in the performance of the Contract. (If so, complete Sections II and III).

II. Direct Participation of MBE/WBE Firms Indirect Participation of MBE/WBE Firms

Where goals have not been achieved through direct participation, Bidder/Proposer shall include documentation outlining efforts to achieve Direct Participation at the time of Bid/Proposal submission. Indirect Participation will only be considered after all efforts to achieve Direct Participation have been exhausted. Only after written documentation of Good Faith Efforts is received will Indirect Participation be considered.

MBEs/WBEs that will perform as subcontractors/suppliers/consultants include the following:

MBE/WBE Firm: Clarity Partners, LLC

Address: 227 West Monroe Street #3950, Chicago, IL 60606

Email: d.namkung@claritypartners.com

Contact Person: David Namkung Phone: 312-920-0550

Dollar Amount Participation: \$ \$7,624,600 Initial Term _____

Percent Amount of Participation: 14% Initial Term _____ %

*Letter of Intent attached? Yes: X No _____

*Letter of Certification attached? Yes: X No _____

.....
MBE/WBE Firm: Level-1 Global Solutions, LLC

Address: Media Tower - Block, 22 West Washington Street #1500, Chicago, IL 60602

Email: aobanion@level-1.com

Contact Person: Angela O'Banion Phone: 312-202-3363

Dollar Amount Participation: \$ \$817,000 Initial Term _____

%

Percent Amount of Participation: 1.5 % Initial Term

*Letter of Intent attached? Yes: X No
*Letter of Certification attached? Yes: X No

MBE/WBE Firm: Next Generation, Inc

Address: 155 N. Wacker Drive , Suite 4250, Chicago, IL, 60606

Email: dhigueros@nxtggeninc.com

Contact Person: Darrell Higueros Phone: 312-953-7514

Dollar Amount Participation: \$ 6,264,000 Initial Terms

Percent Amount of Participation: 11.5% Initial Term %

*Letter of Intent attached? Yes: X No
*Letter of Certification attached? Yes: X No

MBE/WBE Firm: The William Everett Group

Address: 35 East Wacker Drive, Suite 3900, Chicago, IL, 60601

Email: e.turner@wegrp.com

Contact Person: Ellen Rozelle Turner Phone: 312-564-5680

Dollar Amount Participation: \$ 4,357,000 Initial Term

Percent Amount of Participation: 8% Initial Term %

*Letter of Intent attached? Yes: X No
*Letter of Certification attached? Yes: X No

***Additionally, all Letters of Intent, Letters of Certification and documentation of Good Faith Efforts omitted from this bid/proposal must be submitted to the Office of Contract Compliance so as to assure receipt by the Contract Compliance Administrator not later than three (3) business days after the Bid Opening date.**

COOK COUNTY GOVERNMENT LETTER OF INTENT (SECTION 2)

M/WBE Firm: Level-1 Global Solutions, LLC Certifying Agency: City of Chicago

Address: Media Tower, 22 W. Washington St, #1500 Certificate Expiration Date: May 15, 2018

City/State: Chicago, IL Zip: 60602 FEIN #: 30-0007064

Phone: 312-202-3300 Fax: 312-202-3310 Contact Person: Thomas McElroy

Email: aobanion@level-1.com Contract #: _____

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the performance of this contract to another firm?

No Yes – Please attach explanation. Proposed Subcontractor: _____

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract:

Infrastructure and technical roles

Indicate the **Dollar Amount**, or **Percentage**, and the **Terms of Payment** for the above-described Commodities/ Services:

Dollar Amount or Percentage of Payment: \$817,000 Initial Term 1.5% 970

Terms of Payment: Time and Materials, Monthly, Net 45 for Staff augmentation services for Infrastructure and Technical roles

(If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement conditioned upon the Bidder/Proposer's receipt of a signed contract from the County of Cook. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Angela F O'Banion
Signature (M/WBE)

Angela F. O'Banion
Print Name

Level-1 Global
Firm Name

7/22/2015
Date

Subscribed and sworn before me
this 22 day of July, 2015.

Notary Public Angela Sanchez Expires May 24, 2016

SEAL



James L. Northern, II
Signature (Prime Bidder/Proposer)

James L. Northern, II
Print Name

IBM Corporation
Firm Name

July 22, 2015
Date

Subscribed and sworn before me
this 20 day of July, 2015.

Notary Public Angela Sanchez Expires May 24, 2016

SEAL



Software and System Integration Services and Managed Services for Oracle EBS ERP Software



DEPARTMENT OF PROCUREMENT SERVICES
CITY OF CHICAGO

DEC 18 2013

Mr. Thomas McElroy
Level-(1) Global Solutions, LLC.
22 West Washington, Suite 1500
Chicago, IL 60602

RE: Revised Certification Letter - Expansion of Specialty Areas

Dear Mr. McElroy:

The City of Chicago, your host agency, has reviewed your **Continued DBE Eligibility Affidavit** and supporting documentation and is pleased to notify you that your firm, Level-(1) Global Solutions, LLC., has met the requirements for certification as a **Disadvantaged Business Enterprise ("DBE")** in accordance with the governing federal regulations, 49 CFR part 26.

This certification allows your firm to participate as a DBE in the Illinois Unified Certification Program (IL UCP). The participating agencies include the Illinois Department of Transportation, the City of Chicago, the Chicago Transit Authority, Metra, and Pace.

Your certification is approved, subject to a review of **Continued Eligibility on May 15, 2018**. To remain certified with the IL UCP you must submit a **No Change Affidavit** each year. Notification will be sent to you **sixty (60) days** prior to the anniversary date of your certification. It is your responsibility to ensure that your certification is kept current by submitting the required information in a timely manner. Failure to provide this information is a ground for removal of certification based on failure to cooperate pursuant to 49 CFR 26.109(c).

If there is any change in circumstances that affect your ability to meet size, disadvantaged status, ownership, or control requirements or any material change in the information provided in your application, you must provide written notification to this agency **within thirty (30) days** of the occurrence of the change. Failure to provide this information is a ground for removal of certification pursuant to 49 CFR 26.83(f).

121 NORTH LASALLE STREET, ROOM 800, CHICAGO, ILLINOIS 60602

Handwritten initials, possibly "JM", in the bottom right corner of the page.

Level-(1) Global Solutions, LLC.

Page 2 of 3

Your firm's name will appear in the IL UCP DBE Directory in the following area(s) of specialty:

NAICS Code(s):

- 518210 - Application Hosting
- 541511 - Applications Software Programming Services, Custom Computer
- 541511 - Computer Program or Software Development, Custom
- 541511 - Computer Programming Services, Custom
- 541511 - Computer Software Analysis and Design Services, Custom
- 541511 - Computer Software Programming Services, Custom
- 541511 - Computer Software Support Services, Custom
- 541511 - Software Analysis and Design Services, Custom Computer
- 541511 - Software Programming Services, Custom Computer
- 541512 - CAD (computer-aided design) Systems Integration Design Services
- 541512 - Computer Hardware Consulting Services or Consultants
- 541512 - Computer Software Consulting Services or Consultants
- 541512 - Computer Systems Integration Analysis and Design Services
- 541512 - Computer Systems Integration Design Consulting Services
- 541512 - Computer Systems Integrator Services
- 541512 - CAE (computer-aided engineering) Systems Integration Design Services
- 541512 - Information Management Computer Systems Integration Design Services
- 541512 - Local Area Network (LAN) Computer Systems Integration Design Services
- 541512 - Network Systems Integration Design Services, Computer
- 541512 - Office Automation Computer Systems Integration Design Services
- 541512 - Systems Integration Design Consulting Services, Computer
- 541512 - Systems Integration Design Services, Computer
- 541513 - Facilities (i.e., clients' facilities) Support Services, Computer Systems or Data Processing
- 541519 - Software Installation Services, Computer

NAICS Expansion Code(s):

- 517110 - VoIP Service Providers (using own operated wired telecommunications infrastructure)
- 511210 - Applications Software, Computer, Packaged
- 517210 - Wireless Video Services (except satellite)
- 561621 - Security System Monitoring Services
- 541614 - Logistics Management Consulting Services
- 541618 - Telecommunications Management Consulting Services
- 541690 - Security Consulting Services

Level-(1) Global Solutions, LLC.

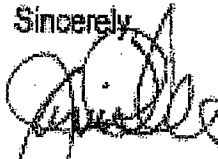
Page 3 of 3

This Directory is used by prime contractors/consultants, as well as other agencies, to solicit participation of DBE firms. The Directory can be accessed on the Internet at www.dot.state.il.us/ucp/ucp.html.

Your participation on contracts will only be credited toward DBE contract goals when you perform in your firm's approved area(s) of specialty. Credit for participation in an area outside your specialty requires prior approval (verification of resources, expertise, and corresponding support documentation, etc.).

Please direct all inquiries and any questions to the City of Chicago Disadvantaged Business Enterprise Program at 312-744-1929.

Sincerely,



Jamie L. Rhee
Chief Procurement Officer

JLR/cm

COOK COUNTY GOVERNMENT LETTER OF INTENT (SECTION 2)

M/WBE Firm: The William Everett Group Certifying Agency: Cook County Government

Address: 33 E. Wacker Drive., Suite 3900 Certificate Expiration Date: December 29, 2016

City/State: Chicago, IL Zip: 60601 FEIN #: 26-1317039

Phone: 312-564-5680 Fax: 312-929-4553 Contact Person: Ellen Rozelle Turner

Email: e.turner@wegrp.com Contract #: _____

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the performance of this contract to another firm?

No Yes - Please attach explanation. Proposed Subcontractor: _____

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract:

Organization Change Management and Training

Indicate the Dollar Amount, or Percentage, and the Terms of Payment for the above-described Commodities/ Services:

Dollar Amount or Percentage of Payment: \$4,357,000 87% net

Terms of Payment: Time and Materials, Monthly, Net 45 for Staff augmentation services for Organization Change Management and Training roles

(If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement conditioned upon the Bidder/Proposer's receipt of a signed contract from the County of Cook. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Ellen Rozelle Turner
Signature (M/WBE)

James L. Northern, II
Signature (Prime Bidder/Proposer)

Ellen Rozelle Turner
Print Name

James L. Northern, II JAMES L. NORTHERN, II
Print Name

The William Everett Group
Firm Name

IBM Corporation
Firm Name

July 22, 2015
Date

July 22, 2015
Date

Subscribed and sworn before me this 22nd day of July, 2015. Expires

Subscribed and sworn before me this 22nd day of July, 2015. Expires

Notary Public Angela L. Sanchez May 24, 2016

Notary Public Angela L. Sanchez May 24, 2016

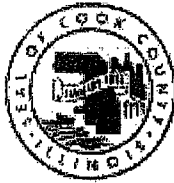
SEAL



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Software and System Integration Services and Managed Services for Oracle EBS ERP Software



TONI PRECKWINKLE
PRESIDENT
Cook County Board
of Commissioners

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1st District

ROBERT STEELE
2nd District

TERRY BUTLER
3rd District

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JEFFREY S. JOHNSON
16th District

ELIZABETH ANN BOONER GORHAM
17th District

OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1070 • Chicago, Illinois 60602 • (312) 605-5502

December 29, 2014

Ms. Ellen R. Turner, President & CEO
Mind Your Manners dba The William Everett Group
35 East Wacker Drive, Suite 3900
Chicago, IL 60601

Re: Annual Certification Expires: December 29, 2015

Dear Ms. Turner:

Congratulations on your continued eligibility for Certification as a Minority-owned Business Enterprise (MBE) and Women-owned Business Enterprise (WBE) by Cook County Government. This certification is valid until December 29, 2016; however, you must re-validate your firm's certification annually.

As a condition of continued Certification during this three (3) year term, you must file a "No Change Affidavit" within sixty (60) business days prior to the date of Annual Certification Expiration. Failure to file this Affidavit shall result in the termination of your Certification. You must notify Cook County Government's Office of Contract Compliance of any change in ownership or control or any other matters or facts affecting your firm's eligibility for Certification within fifteen (15) business days of such change.

Cook County Government may commence action to remove your firm as an MBE/WBE vendor if you fail to notify us of any changes of facts affecting your firm's Certification, or if your firm otherwise fails to cooperate with the County in any inquiry or investigation. Removal of status may also be commenced if your firm is found to be involved in bidding or contractual irregularities.

Your firm's name will be listed in Cook County's Directory of certified firms in the following area(s) of specialty:

**Technology: Management, Application & Infrastructure Consulting Services;
Staffing and Training Services**

Your firm's participation on Cook County contracts will be credited toward MBE/WBE goals in your area(s) of specialty. While your participation on Cook County contracts is not limited to your specialty, credit toward MBE/WBE goals will be given only for work performed in the specialty category.

Thank you for your continued interest in Cook County Government's Minority, Women, Veteran, and Service-Disabled Veteran Business Enterprise Programs.

Sincerely,

Jacqueline Gomez
Contract Compliance Director

JG/lar

\$ Fiscal Responsibility | Innovative Leadership | Transparency & Accountability | Improved Services

COOK COUNTY GOVERNMENT LETTER OF INTENT (SECTION 2)

M/WBE Firm: Clarity Partners, LLC Certifying Agency: City of Chicago

Address: 227 West Monroe Street #3950 Certificate Expiration Date: November 1, 2015

City/State: Chicago, IL Zip: 60606 FEIN #: 80-0123899

Phone: 312-920-0550 Fax: 312-920-0554 Contact Person: Michael Cusick

Email: m.cusick@claritypartners.com Contract #: _____

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the performance of this contract to another firm?

No Yes - Please attach explanation. Proposed Subcontractor: _____

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract:

Hyperion Budget Prep and Reporting with end deliverable responsibility, EBS Technical and Functional Implementation Roles

Indicate the Dollar Amount, or Percentage, and the Terms of Payment for the above-described Commodities/ Services:

Dollar Amount or Percentage of Payment: \$7,624,600 Initial Term: 14% Mth

Terms of Payment: Pay when paid, Net 15 for Fixed Price Scope for the Hyperion Budget Prep and Reporting with end deliverable responsibility. Time and Materials, Monthly, Net 45 for Staff augmentation services for EBS Technical and Functional roles

(If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement conditioned upon the Bidder/Proposer's receipt of a signed contract from the County of Cook. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Signature (M/WBE) [Signature]
Michael Cusick

Print Name

Firm Name CLARITY PARTNERS, LLC

Date 7/22/15

Signature (Prime Bidder/Proposer) JAMES L. NORTHERN, II
[Signature]

Print Name

Firm Name IBM Corporation

Date July 22, 2015

Subscribed and sworn before me this 22 day of July, 2015
Notary Public [Signature] Expires May 24, 2016

SEAL



Subscribed and sworn before me this 22 day of July, 2015
Notary Public [Signature] Expires May 24, 2016

SEAL





DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

DEC 23 2014

David C. Namkung
Clarity Partners, LLC
227 West Monroe, Suite 3950
Chicago, IL 60602

Dear David C. Namkung:

We are pleased to inform you that **Clarity Partners, LLC** has been re-certified as a **Minority Business Enterprise ("MBE")** by the City of Chicago ("City"). This MBE certification is valid until **11/01/2015**; however your firm's certification must be re-validated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. As a consequence, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

Your firm's five year certification will expire on **11/01/2015**. You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **09/01/2015**.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a **MBE** if you fail to:

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification **within 10 days** of such change; or
- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).

Be advised that if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the City by falsely representing the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code(s):

- 518210 – Data entry services**
- 518210 – Web hosting**
- 541511 – Applications software programming services, custom computer**
- 541511 – Computer program or software development, custom**
- 541511 – Computer programming services, custom**
- 541511 – Computer software analysis and design services, custom**
- 541511 - Computer software programming services, custom**
- 541511 – Computer software support services, custom**
- 541511 – Programming services custom computer**
- 541511 – Software analysis and design services, custom computer**
- 541511 – Software programming services, custom computer**
- 541511 – Web (i.e., Internet) page design services, custom**
- 541512 – Computer hardware consulting services or consultants**
- 541512 – Computer software consulting services or consultants**
- 541512 – Computer systems integration analysis and design services**
- 541512 – Computer systems integration design consulting services**
- 541512 – Computer systems integrator services**
- 541512 – Information management computer systems integration design services**
- 541512 – Network systems integration design services, computer**
- 541512 – Office automation computer systems integrations design services**
- 541512 – Systems integration design consulting services, computer**
- 541512 – Systems integration design services, computer**
- 541611 – Administrative management consulting services**
- 541611 – Business management consulting services**
- 541611 – Financial management consulting (except investment advice) services**
- 541611 – General management consulting services**
- 541611 – Reorganizational consulting services**
- 541611 – Strategic planning consulting services**

Your firm's participation on City contracts will be credited only toward Minority Business Enterprise and Woman Business Enterprise goals in your area(s) specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,



Jamie L. Rhee
Chief Procurement Officer

JLR/sl



COOK COUNTY GOVERNMENT LETTER OF INTENT (SECTION 2)

M/WBE Firm: Next Generation Inc. Certifying Agency: Cook County Government

Address: 155 N. Wacker Drive., Suite 4250 Certificate Expiration Date: August 15, 2015

City/State: Chicago, IL Zip: 60606 FEIN #: 36-4419415

Phone: 312-953-7514 Fax: 312-739-0523 Contact Person: Darrell Higueros

Email: dhigueros@nxtgeninc.com Contract #: _____

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the performance of this contract to another firm?

No Yes – Please attach explanation. Proposed Subcontractor: Clarity Partners, Inc.

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract:

HCM / Payroll scope with end deliverable responsibility, EBS Technical and Functional Roles

Indicate the **Dollar Amount**, or **Percentage**, and the **Terms of Payment** for the above-described Commodities/ Services:

Dollar Amount or Percentage of Payment: \$6,264,000 Initial Term: 11.5% ^{PH}

Terms of Payment: Pay when paid, Net 15 for Fixed Price Scope for the HCM / Payroll scope with end deliverable responsibility. Time and Materials, Monthly, Net 45 for Staff augmentation services for EBS Technical and Functional roles

(If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement conditioned upon the Bidder/Proposer receipt of a signed contract from the County of Cook. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Signature (M/WBE)

Darrell Higueros
Print Name

Next Generation, Inc.
Firm Name

7/22/15
Date

Subscribed and sworn before me this 22 day of July, 2015

Notary Public Angela L. Sanchez EXPIRES May 24, 2016

SEAL



James L. Northern, II
Signature (Prime Bidder/Proposer)

JAMES L. NORTHERN, II
Print Name

IBM Corporation
Firm Name

July 22, 2015
Date

Subscribed and sworn before me this 22 day of July, 2015

Notary Public Angela L. Sanchez EXPIRES May 24, 2016

SEAL



Software and System Integration Services and Managed Services for Oracle EBS ERP Software



COUNTY OF COOK BUREAU OF FINANCE
OFFICE OF CONTRACT COMPLIANCE
JACQUELINE GOMEZ, DIRECTOR
118 N Clark, Room 1020 | Chicago, Illinois 60602-1504 | Tel (312) 603-5502

TONI PRECKWINKLE

PRESIDENT
Cook County Board
of Commissioners

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1st District

ROBERT STEELE
2nd District

JERRY BUTLER
3rd District

STANLEY MURPHY
4th District

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5th District

KONN PATRICIA MAURPHY
6th District

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EDWIN REYES
8th District

PETER N. SILVESTRI
9th District

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11th District

JOHN A. FIORIO
12th District

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13th District

BREGG BOSLIN
14th District

DENOVY Q. SCHNEIDER
15th District

JEFFREY R. KOCHENSKI
16th District

ELWARTH RICH BOJAN-COSMAN
17th District

August 29, 2014

Mr. Daniel Higuera, President & CEO
Next Generation, Inc.
400 N. Michigan Avenue, Suite 5500
Chicago, IL 60611

Annual Certification Expires: August 29, 2015

Dear Mr. Higuera:

Congratulations on your continued eligibility for Certification as a Minority-owned Business Enterprise (MBE) by Cook County Government. This Certification is valid until August 29, 2015.

As a condition of continued Certification, you must file a "Re-Certification Affidavit" within sixty (60) business days prior to the Annual Certification Expiration date. Failure to file this Affidavit shall result in the termination of your Certification. You must notify Cook County's Office of Contract Compliance of any change in ownership or control or any other matters or facts affecting your firm's eligibility for Certification within fifteen (15) business days of such change.

Cook County Government may commence action to remove your firm as a certified vendor if you fail to notify us of any changes of facts affecting your firm's Certification, or if your firm otherwise fails to cooperate with the County in any inquiry or investigation. Removal of your status may also be commenced if your firm is found to be involved in bidding or contractual irregularities.

Your firm's name will be listed in Cook County's Directory of certified firms in the following area(s) of specialty:

Technology: Software and Hardware Consulting; Reseller of Oracle Products

Your firm's participation on Cook County contracts will be credited toward MBE goals in your area(s) of specialty. While your participation on Cook County contracts is not limited to your specialty, credit toward MBE goals will be given only for work done in the specialty category.

Thank you for your continued interest in Cook County Government's Minority, Women and Veteran Business Enterprise Programs.

Sincerely,

Jacqueline Gomez
Contract Compliance Director
JG1ek

Fiscal Responsibility Innovative Leadership Transparency & Accountability Improved Services



OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

TONI PRECKWINKLE

PRESIDENT

**Cook County Board
of Commissioners**

RICHARD R. BOYKIN
1st District

ROBERT STEELE
2nd District

JERRY BUTLER
3rd District

STANLEY MOORE
4th District

DEBORAH SIMS
5th District

JOAN PATRICIA MURPHY
6th District

JESUS G. GARCIA
7th District

LUIS ARROYO JR.
8th District

PETER N. SILVESTRI
9th District

BRIDGET GAINER
10th District

JOHN P. DALEY
11th District

JOHN A. FRITCHEY
12th District

LARRY SUFFREDIN
13th District

GREGG GOSLIN
14th District

TIMOTHY O. SCHNEIDER
15th District

JEFFREY R. TOBOLSKI
16th District

ELIZABETH ANN DOODY GORMAN
17th District

July 22, 2015

Ms. Shannon Andrews
Chief Procurement Officer
County Building, Room 1018
Chicago, IL 60602

Re: Contract #1418-14268
Software and System Integration Services and Managed Services for Oracle
EBS ERP Software

Dear Ms. Andrews:

The following bid for the above reference contract has been reviewed for compliance with the General Conditions regarding the Minority- and Women-owned Business Enterprises Ordinance and has been found to be responsive to the professional service goal of 35% MWBE participation.

Bidder: IBM Corp.
Bid Amount: \$66,546,900.00

<u>MWBE</u>	<u>Status</u>	<u>Certifying Agency</u>	<u>Commitment *</u>
Clarity Partners, LLC	MBE-8	City of Chicago	14.00% Direct
Next Generation, Inc.	MBE-9	Cook County	11.47% Direct
Mind Your Manners Db a The William Everett Group	MBE-6	Cook County	8.00% Direct
Level-1 Global Solutions, LLC	MBE-6	City of Chicago	<u>1.47% Direct</u> 34.94%

*The MWBE commitment is based on the implementation services and application managed services. The Office of Contract Compliance has been advised by the Requesting Department that no other bidders are being recommended for award. Additionally, please note that original forms were used in the determination of the responsiveness of this contract.

Sincerely,

Jacqueline Gomez
Director

JG/la

Cc: Ivan Samstein, Bureau of Finance

ECONOMIC DISCLOSURE STATEMENT

**COOK COUNTY
ECONOMIC DISCLOSURE STATEMENT
AND EXECUTION DOCUMENT
INDEX**

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SECTION 1
INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT

This Economic Disclosure Statement and Execution Document ("EDS") is to be completed and executed by every Bidder on a County contract, every Proposer responding to a Request for Proposals, and every Respondent responding to a Request for Qualifications, and others as required by the Chief Procurement Officer. The execution of the EDS shall serve as the execution of a contract awarded by the County. The Chief Procurement Officer reserves the right to request that the Bidder or Proposer, or Respondent provide an updated EDS on an annual basis.

Definitions. Terms used in this EDS and not otherwise defined herein shall have the meanings given to such terms in the Instructions to Bidders, General Conditions, Request for Proposals, Request for Qualifications, as applicable.

Affiliate means a person that directly or indirectly through one or more intermediaries, Controls is Controlled by, or is under common Control with the Person specified.

Applicant means a person who executes this EDS.

Bidder means any person who submits a Bid.

Code means the Code of Ordinances, Cook County, Illinois available on municode.com.

Contract shall include any written document to make Procurements by or on behalf of Cook County.

Contractor or Contracting Party means a person that enters into a Contract with the County.

Control means the unfettered authority to directly or indirectly manage governance, administration, work, and all other aspects of a business.

EDS means this complete Economic Disclosure Statement and Execution Document, including all sections listed in the Index and any attachments.

Joint Venture means an association of two or more Persons proposing to perform a for-profit business enterprise. Joint Ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their relationship and respective responsibility for the Contract

Lobby or lobbying means to, for compensation, attempt to influence a County official or County employee with respect to any County matter.

Lobbyist means any person who lobbies.

Person or Persons means any individual, corporation, partnership, Joint Venture, trust, association, Limited Liability Company, sole proprietorship or other legal entity.

Prohibited Acts means any of the actions or occurrences which form the basis for disqualification under the Code, or under the Certifications hereinafter set forth.

Proposal means a response to an RFP.

Proposer means a person submitting a Proposal.

Response means response to an RFQ.

Respondent means a person responding to an RFQ.

RFP means a Request for Proposals issued pursuant to this Procurement Code.

RFQ means a Request for Qualifications issued to obtain the qualifications of interested parties.

**INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT**

Section 1: Instructions. Section 1 sets forth the instructions for completing and executing this EDS.

Section 2: Certifications. Section 2 sets forth certifications that are required for contracting parties under the Code and other applicable laws. Execution of this EDS constitutes a warranty that all the statements and certifications contained, and all the facts stated, in the Certifications are true, correct and complete as of the date of execution.

Section 3: Economic and Other Disclosures Statement. Section 3 is the County's required Economic and Other Disclosures Statement form. Execution of this EDS constitutes a warranty that all the information provided in the EDS is true, correct and complete as of the date of execution, and binds the Applicant to the warranties, representations, agreements and acknowledgements contained therein.

Required Updates. The Applicant is required to keep all information provided in this EDS current and accurate. In the event of any change in the information provided, including but not limited to any change which would render inaccurate or incomplete any certification or statement made in this EDS, the Applicant shall supplement this EDS up to the time the County takes action, by filing an amended EDS or such other documentation as is required.

Additional Information. The County's Governmental Ethics and Campaign Financing Ordinances impose certain duties and obligations on persons or entities seeking County contracts, work, business, or transactions, and the Applicant is expected to comply fully with these ordinances. For further information please contact the Director of Ethics at (312) 603-4304 (69 W. Washington St. Suite 3040, Chicago, IL 60602) or visit the web-site at cookcountyil.gov/ethics-board-of.

Authorized Signers of Contract and EDS Execution Page. If the Applicant is a corporation, the President and Secretary must execute the EDS. In the event that this EDS is executed by someone other than the President, attach hereto a certified copy of that section of the Corporate By-Laws or other authorization by the Corporation, satisfactory to the County that permits the person to execute EDS for said corporation. If the corporation is not registered in the State of Illinois, a copy of the Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a partnership or joint venture, all partners or joint venturers must execute the EDS, unless one partner or joint venture has been authorized to sign for the partnership or joint venture, in which case, the partnership agreement, resolution or evidence of such authority satisfactory to the Office of the Chief Procurement Officer must be submitted with this Signature Page.

If the Applicant is a member-managed LLC all members must execute the EDS, unless otherwise provided in the operating agreement, resolution or other corporate documents. If the Applicant is a manager-managed LLC, the manager(s) must execute the EDS. The Applicant must attach either a certified copy of the operating agreement, resolution or other authorization, satisfactory to the County, demonstrating such person has the authority to execute the EDS on behalf of the LLC. If the LLC is not registered in the State of Illinois, a copy of a current Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a Sole Proprietorship, the sole proprietor must execute the EDS.

A "Partnership" "Joint Venture" or "Sole Proprietorship" operating under an Assumed Name must be registered with the Illinois county in which it is located, as provided in 805 ILCS 405 (2012), and documentation evidencing registration must be submitted with the EDS.

SECTION 2

CERTIFICATIONS

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE APPLICANT IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE APPLICANT THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE APPLICANT IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE APPLICANT SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 *et seq.*;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, *et seq.*;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of *nolo contendere* to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in subparagraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20% or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Applicant has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Applicant would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE APPLICANT HEREBY CERTIFIES THAT: In accordance with 720 ILCS 5/33 E-11, neither the Applicant nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid rotating.

C. DRUG FREE WORKPLACE ACT

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant will provide a drug free workplace, as required by (30 ILCS 580/3).

D. DELINQUENCY IN PAYMENT OF TAXES

THE APPLICANT HEREBY CERTIFIES THAT: *The Applicant is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, by a local municipality, or by the Illinois Department of Revenue, which such tax or fee is delinquent, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-171.*

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 *et seq.*).

F. ILLINOIS HUMAN RIGHTS ACT

THE APPLICANT HEREBY CERTIFIES THAT: *It is in compliance with the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.*

G. INSPECTOR GENERAL (COOK COUNTY CODE, CHAPTER 34, SECTION 34-174 and Section 34-250)

The Applicant has not willfully failed to cooperate in an investigation by the Cook County Independent Inspector General or to report to the Independent Inspector General any and all information concerning conduct which they know to involve corruption, or other criminal activity, by another county employee or official, which concerns his or her office of employment or County related transaction.

The Applicant has reported directly and without any undue delay any suspected or known fraudulent activity in the County's Procurement process to the Office of the Cook County Inspector General.

H. CAMPAIGN CONTRIBUTIONS (COOK COUNTY CODE, CHAPTER 2, SECTION 2-585)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning campaign contributions, which is codified at Chapter 2, Division 2, Subdivision II, Section 585, and can be read in its entirety at www.municode.com.

I. GIFT BAN, (COOK COUNTY CODE, CHAPTER 2, SECTION 2-574)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning receiving and soliciting gifts and favors, which is codified at Chapter 2, Division 2, Subdivision II, Section 574, and can be read in its entirety at www.municode.com.

J. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-160;

Unless expressly waived by the Cook County Board of Commissioners, the Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is annually by the Chief Financial Officer of the County, and shall be posted on the Chief Procurement Officer's website.

The term "Contract" as used in Section 4, I, of this EDS, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for-profit law);
- 2) Community Development Block Grants;
- 3) Cook County Works Department;
- 4) Sheriff's Work Alternative Program; and
- 5) Department of Correction inmates.

SECTION 3

REQUIRED DISCLOSURES

1. DISCLOSURE OF LOBBYIST CONTACTS

List all persons that have made lobbying contacts on your behalf with respect to this contract:

Name	Address
------	---------

No lobbyist was involved in this pursuit.

2. LOCAL BUSINESS PREFERENCE STATEMENT (CODE, CHAPTER 34, SECTION 34-230)

Local business means a Person, including a foreign corporation authorized to transact business in Illinois, having a bona fide establishment located within the County at which it is transacting business on the date when a Bid is submitted to the County, and which employs the majority of its regular, full-time work force within the County. A Joint Venture shall constitute a Local Business if one or more Persons that qualify as a "Local Business" hold interests totaling over 50 percent in the Joint Venture, even if the Joint Venture does not, at the time of the Bid submittal, have such a bona fide establishment within the County.

a) Is Applicant a "Local Business" as defined above?

Yes: _____ No: X

b) If yes, list business addresses within Cook County:

c) Does Applicant employ the majority of its regular full-time workforce within Cook County?

Yes: _____ No: X

3. THE CHILD SUPPORT ENFORCEMENT ORDINANCE (CODE, CHAPTER 34, SECTION 34-172)

Every Applicant for a County Privilege shall be in full compliance with any child support order before such Applicant is entitled to receive or renew a County Privilege. When delinquent child support exists, the County shall not issue or renew any County Privilege, and may revoke any County Privilege.

All Applicants are required to review the Cook County Affidavit of Child Support Obligations attached to this EDS (EDS-5) and complete the Affidavit, based on the instructions in the Affidavit.

4. REAL ESTATE OWNERSHIP DISCLOSURES.

The Applicant must indicate by checking the appropriate provision below and providing all required information that either:

- a) The following is a complete list of all real estate owned by the Applicant in Cook County:

PERMANENT INDEX NUMBER(S): _____
(ATTACH SHEET IF NECESSARY TO LIST ADDITIONAL INDEX NUMBERS)

OR:

- b) The Applicant owns no real estate in Cook County.

IBM does not own any real estate in Cook County. However, IBM leases the following locations;

- 71 S. Wacker Drive, Chicago
- 200 W. Madison St., Chicago
- 33 W. Monroe Street, Chicago
- 20 N. Wacker Drive, Chicago
- 1131A W. 175th St., Homewood
- 10 N. Martingale Road, Schaumburg

5. EXCEPTIONS TO CERTIFICATIONS OR DISCLOSURES.

If the Applicant is unable to certify to any of the Certifications or any other statements contained in this EDS and not explained elsewhere in this EDS, the Applicant must explain below:

If the letters, "NA", the word "None" or "No Response" appears above, or if the space is left blank, it will be conclusively presumed that the Applicant certified to all Certifications and other statements contained in this EDS.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT

The Cook County Code of Ordinances (§2-610 *et seq.*) requires that any Applicant for any County Action must disclose information concerning ownership interests in the Applicant. This Disclosure of Ownership Interest Statement must be completed with all information current as of the date this Statement is signed. Furthermore, this Statement must be kept current, by filing an amended Statement, until such time as the County Board or County Agency shall take action on the application. The information contained in this Statement will be maintained in a database and made available for public viewing.

If you are asked to list names, but there are no applicable names to list, you must state NONE. An incomplete Statement will be returned and any action regarding this contract will be delayed. A failure to fully comply with the ordinance may result in the action taken by the County Board or County Agency being voided.

"Applicant" means any Entity or person making an application to the County for any County Action.

"County Action" means any action by a County Agency, a County Department, or the County Board regarding an ordinance or ordinance amendment, a County Board approval, or other County agency approval, with respect to contracts, leases, or sale or purchase of real estate.

"Person" "Entity" or "Legal Entity" means a sole proprietorship, corporation, partnership, association, business trust, estate, two or more persons having a joint or common interest, trustee of a land trust, other commercial or legal entity or any beneficiary or beneficiaries thereof.

This Disclosure of Ownership Interest Statement must be submitted by:

1. An Applicant for County Action and
2. A Person that holds stock or a beneficial interest in the Applicant and is listed on the Applicant's Statement (a "Holder") must file a Statement and complete #1 only under **Ownership Interest Declaration**.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers.

This Statement is being made by the Applicant or Stock/Beneficial Interest Holder

This Statement is an: Original Statement or Amended Statement

Identifying Information:

Name IBM Corporation

D/B/A: _____ FEIN NO.: 13-0871985

Street Address: 71 South Wacker Drive

City: Chicago State: IL Zip Code: 60606

Phone No.: 952-250-9970 Fax Number: N/A Email: jlnorthe@us.ibm.com

Cook County Business Registration Number: _____
(Sole Proprietor, Joint Venture Partnership)

Corporate File Number (if applicable): 0480-101-6

Form of Legal Entity:

Sole Proprietor Partnership Corporation Trustee of Land Trust

Business Trust Estate Association Joint Venture

Other (describe) _____

Ownership Interest Declaration:

1. List the name(s), address, and percent ownership of each Person having a legal or beneficial interest (including ownership) of more than five percent (5%) in the Applicant/Holder.

Name	Address	Percentage Interest in Applicant/Holder
Berkshire Hathaway, Inc.,	3555 Famam St, Suite 1440, Omaha, NE 68131	7.8%
Vanguard Group, Inc. (The),	100 Vanguard Blvd. Malvern, PA	5.56%
State Street Corporation,	1 Lincoln St. Boston, MA 02111	5.5%
BlackRock Inc,	55 East 52 nd Street, NY, NY 10022	5.4%

The following sets forth information as to any person known to the Company to be the beneficial owner of more than five percent of the Company's common stock as of December 31, 2014.

2. If the interest of any Person listed in (1) above is held as an agent or agents, or a nominee or nominees, list the name and address of the principal on whose behalf the interest is held.

Name of Agent/Nominee	Name of Principal	Principal's Address
NA		

3. Is the Applicant constructively controlled by another person or Legal Entity? [] Yes [X] No
 If yes, state the name, address and percentage of beneficial interest of such person, and the relationship under which such control is being or may be exercised.

Name	Address	Percentage of Beneficial Interest	Relationship

Corporate Officers, Members and Partners Information:

For all corporations, list the names, addresses, and terms for all corporate officers. For all limited liability companies, list the names, addresses for all members. For all partnerships and joint ventures, list the names, addresses, for each partner or joint venture.

Name	Address	Title (specify title of Office, or whether manager or partner/joint venture)	Term of Office
(See Attached List)			

Declaration (check the applicable box):

- [X] I state under oath that the Applicant has withheld no disclosure as to ownership interest in the Applicant nor reserved any information, data or plan as to the intended use or purpose for which the Applicant seeks County Board or other County Agency action.
- [] I state under oath that the Holder has withheld no disclosure as to ownership interest nor reserved any information required to be disclosed.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT SIGNATURE PAGE

James L. Northern, II

Name of Authorized Applicant/Holder Representative (please print or type)

Client Manager

Title

James L. Northern, II
Signature

August 26, 2015
Date

jlnorthe@us.ibm.com
E-mail address

952-250-9970
Phone Number

Subscribed to and sworn before me
this *26th* day of *Aug*, 2015

My commission expires: *May 24, 2015*

x *Angela L. Sanchez*
Notary Public Signature





COOK COUNTY BOARD OF ETHICS
 69 W. WASHINGTON STREET, SUITE 3040
 CHICAGO, ILLINOIS 60602
 312/603-4304 Office 312/603-9988 Fax

FAMILIAL RELATIONSHIP DISCLOSURE PROVISION

Nepotism Disclosure Requirement:

Doing a significant amount of business with the County requires that you disclose to the Board of Ethics the existence of any familial relationships with any County employee or any person holding elective office in the State of Illinois, the County, or in any municipality within the County. The Ethics Ordinance defines a significant amount of business for the purpose of this disclosure requirement as more than \$25,000 in aggregate County leases, contracts, purchases or sales in any calendar year.

If you are unsure of whether the business you do with the County or a County agency will cross this threshold, err on the side of caution by completing the attached familial disclosure form because, among other potential penalties, any person found guilty of failing to make a required disclosure or knowingly filing a false, misleading, or incomplete disclosure will be prohibited from doing any business with the County for a period of three years. The required disclosure should be filed with the Board of Ethics by January 1 of each calendar year in which you are doing business with the County and again with each bid/proposal/quotation to do business with Cook County. The Board of Ethics may assess a late filing fee of \$100 per day after an initial 30-day grace period.

The person that is doing business with the County must disclose his or her familial relationships. If the person on the County lease or contract or purchasing from or selling to the County is a business entity, then the business entity must disclose the familial relationships of the individuals who are and, during the year prior to doing business with the County, were:

- its board of directors,
- its officers,
- its employees or independent contractors responsible for the general administration of the entity,
- its agents authorized to execute documents on behalf of the entity, and
- its employees who directly engage or engaged in doing work with the County on behalf of the entity.

Do not hesitate to contact the Board of Ethics at (312) 603-4304 for assistance in determining the scope of any required familial relationship disclosure.

Additional Definitions:

“*Familial relationship*” means a person who is a spouse, domestic partner or civil union partner of a County employee or State, County or municipal official, or any person who is related to such an employee or official, whether by blood, marriage or adoption, as a:

- | | | |
|----------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Parent | <input type="checkbox"/> Grandparent | <input type="checkbox"/> Stepfather |
| <input type="checkbox"/> Child | <input type="checkbox"/> Grandchild | <input type="checkbox"/> Stepmother |
| <input type="checkbox"/> Brother | <input type="checkbox"/> Father-in-law | <input type="checkbox"/> Stepson |
| <input type="checkbox"/> Sister | <input type="checkbox"/> Mother-in-law | <input type="checkbox"/> Stepdaughter |
| <input type="checkbox"/> Aunt | <input type="checkbox"/> Son-in-law | <input type="checkbox"/> Stepbrother |
| <input type="checkbox"/> Uncle | <input type="checkbox"/> Daughter-in-law | <input type="checkbox"/> Stepsister |
| <input type="checkbox"/> Niece | <input type="checkbox"/> Brother-in-law | <input type="checkbox"/> Half-brother |
| <input type="checkbox"/> Nephew | <input type="checkbox"/> Sister-in-law | <input type="checkbox"/> Half-sister |

COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM

A. PERSON DOING OR SEEKING TO DO BUSINESS WITH THE COUNTY

Name of Person Doing Business with the County: _

IBM Corporation - James Northern

Address of Person Doing Business with the County: 71 S. Wacker Drive

Phone number of Person Doing Business with the County: _

952-250-9970

Email address of Person Doing Business with the County: _

jlnothe@us.ibm.com

If Person Doing Business with the County is a Business Entity, provide the name, title and contact information for the individual completing this disclosure on behalf of the Person Doing Business with the County:

B. DESCRIPTION OF BUSINESS WITH THE COUNTY

Append additional pages as needed and for each County lease, contract, purchase or sale sought and/or obtained during the calendar year of this disclosure (or the proceeding calendar year if disclosure is made on January 1), identify:

The lease number, contract number, purchase order number, request for proposal number and/or request for qualification number associated with the business you are doing or seeking to do with the County: _____

RFP 1418-14268 ERP SI

The aggregate dollar value of the business you are doing or seeking to do with the County: \$ 66.7M

The name, title and contact information for the County official(s) or employee(s) involved in negotiating the business you are doing or seeking to do with the County: Richard Sanchez - Procurement Officer, Ivan Samstein - CFO, Tom Lynch - ERP Director

The name, title and contact information for the County official(s) or employee(s) involved in managing the business you are doing or seeking to do with the County: _____

C. DISCLOSURE OF FAMILIAL RELATIONSHIPS WITH COUNTY EMPLOYEES OR STATE, COUNTY OR MUNICIPAL ELECTED OFFICIALS

Check the box that applies and provide related information where needed

[] The Person Doing Business with the County is an individual and there is no familial relationship between this individual and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

[X] The Person Doing Business with the County is a business entity and there is no familial relationship between any member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity or employees directly engaged in contractual

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

work with the County on behalf of the business entity, and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

**** IBM Comment: IBM has conducted reasonable due diligence with respect to this certification, and, to the best of our knowledge, and belief, there are no familial relationships with any IBM employee who have been directly involved in this proposal response. ****

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

The Person Doing Business with the County is an individual and there is a familial relationship between this individual and at least one Cook County employee and/or a person or persons holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County. **The familial relationships are as follows:**

Name of Individual Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

If more space is needed, attach an additional sheet following the above format.

The Person Doing Business with the County is a business entity and there is a familial relationship between at least one member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity and/or employees directly engaged in contractual work with the County on behalf of the business entity, on the one hand, and at least one Cook County employee and/or a person holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County, on the other. **The familial relationships are as follows:**

Name of Member of Board of Director for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____

Name of Officer for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

CONTRACT NO.

Name of Person Responsible
for the General
Administration of the
Business Entity Doing
Business with the County

Name of Related County
Employee or State, County or
Municipal Elected Official

Title and Position of Related
County Employee or State, County
or Municipal Elected Official

Nature of Familial
Relationship*

Name of Agent Authorized
to Execute Documents for
Business Entity Doing
Business with the County

Name of Related County
Employee or State, County or
Municipal Elected Official

Title and Position of Related
County Employee or State, County
or Municipal Elected Official

Nature of Familial
Relationship*

Name of Employee of
Business Entity Directly
Engaged in Doing Business
with the County

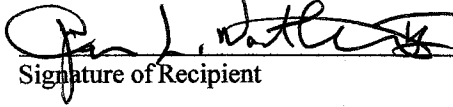
Name of Related County
Employee or State, County or
Municipal Elected Official

Title and Position of Related
County Employee or State, County
or Municipal Elected Official

Nature of Familial
Relationship*

If more space is needed, attach an additional sheet following the above format.

VERIFICATION: To the best of my knowledge, the information I have provided on this disclosure form is accurate and complete. I acknowledge that an inaccurate or incomplete disclosure is punishable by law, including but not limited to fines and debarment.


Signature of Recipient

August 26, 2015
Date

SUBMIT COMPLETED FORM TO:

Cook County Board of Ethics
69 West Washington Street, Suite 3040, Chicago, Illinois 60602
Office (312) 603-4304 – Fax (312) 603-9988
CookCounty.Ethics@cookcountyil.gov

* Spouse, domestic partner, civil union partner or parent, child, sibling, aunt, uncle, niece, nephew, grandparent or grandchild by blood, marriage (i.e. in laws and step relations) or adoption.

SECTION 4

COOK COUNTY AFFIDAVIT FOR WAGE THEFT ORDINANCE

Effective May 1, 2015, every Person, **including Substantial Owners**, seeking a Contract with Cook County must comply with the Cook County Wage Theft Ordinance set forth in Chapter 34, Article IV, Section 179. Any Person/Substantial Owner, who fails to comply with Cook County Wage Theft Ordinance, may request that the Chief Procurement Officer grant a reduction or waiver in accordance with Section 34-179(d).

"Contract" means any written document to make Procurements by or on behalf of Cook County.

"Person" means any individual, corporation, partnership, Joint Venture, trust, association, limited liability company, sole proprietorship or other legal entity.

"Procurement" means obtaining supplies, equipment, goods, or services of anykind.

"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

All Persons/Substantial Owners are required to complete this affidavit and comply with the Cook County Wage Theft Ordinance before any Contract is awarded. Signature of this form constitutes a certification the information provided below is correct and complete, and that the individual(s) signing this form has/have personal knowledge of such information.

I. Contract Information:

Contract Number: Software and System Integration Services and Managed Services for Oracle EBS Software

County Using Agency (requesting Procurement): The ERP Center of Excellence

II. Person/Substantial Owner Information:

Person (Corporate Entity Name): IBM Corporation

Substantial Owner Complete Name: N/A

FEIN# 13-0871985

Date of Birth: N/A

E-mail address: N/A

Street Address: 71 S. Wacker

City: Chicago

State: IL Zip: 60606

Home Phone: () N/A

Driver's License No: N/A

III. Compliance with Wage Laws:

Within the past five years has the Person/Substantial Owner, in any judicial or administrative proceeding, been convicted of, entered a plea, made an admission of guilt or liability, or had an administrative finding made for committing a repeated or willful violation of any of the following laws:

Illinois Wage Payment and Collection Act, 820 ILCS 115/1 et seq., **NO**

Illinois Minimum Wage Act, 820 ILCS 105/1 et seq., **NO**

Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS 65/1 et seq., **NO**

Employee Classification Act, 820 ILCS 185/1 et seq., **NO**

Fair Labor Standards Act of 1938, 29 U.S.C. 201, et seq., **NO**

Any comparable state statute or regulation of any state, which governs the payment of wages **NO**

If the Person/Substantial Owner answered "Yes" to any of the questions above, it is ineligible to enter into a Contract with Cook County, but can request a reduction or waiver under **Section IV**.

IV. Request for Waiver or Reduction

If Person/Substantial Owner answered "Yes" to any of the questions above, it may request a reduction or waiver in accordance with Section 34-179(d), provided that the request for reduction of waiver is made on the basis of one or more of the following actions that have taken place:

There has been a bona fide change in ownership or Control of the ineligible Person or Substantial Owner
YES or NO

Disciplinary action has been taken against the individual(s) responsible for the acts giving rise to the violation
YES or NO

Remedial action has been taken to prevent a recurrence of the acts giving rise to the disqualification or default
YES or NO

Other factors that the Person or Substantial Owner believe are relevant.
YES or NO

The Person/Substantial Owner must submit documentation to support the basis of its request for a reduction or waiver. The Chief Procurement Officer reserves the right to make additional inquiries and request additional documentation.

V. Affirmation

The Person/Substantial Owner affirms that all statements contained in the Affidavit are true, accurate and complete.

Signature: James L. Northern Date: August 26, 2015

Name of Person signing (Print): James Northern Title: Client Manager

Subscribed and sworn to before me this 26th day of August, 20 15

x Angela L. Sanchez
Notary Public Signature



Note: The above information is subject to verification prior to the award of the Contract

DELEGATION OF AUTHORITY

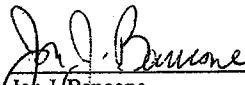
I, Jon J. Bancone, Associate General Counsel, IBM North America Sales & Distribution, do hereby certify that said Associate General Counsel, in accordance with and pursuant to resolutions of the Board of Directors of International Business Machines Corporation ("IBM") duly adopted at a meeting duly held and called on April 25, 1994, and those certain Letters of Authority dated November 15, 1995, and May 6, 2011, has been duly authorized to execute and deliver in the name of and on behalf of IBM any contract or other document or instrument necessary or appropriate in the ordinary course of IBM's business, including, but not limited, to bid documents for the sale of IBM products and services to federal, state and local governments and agencies, purchase orders and sales agreements, and the like, and to delegate this authorization within the IBM organization in the United States, including Puerto Rico; and that said authorization has not been modified, amended or rescinded and continues in full force and effect. So authorized, I hereby delegate said authority to execute and deliver in the name of and on behalf of IBM any such contract or other document or instrument reasonably related to, or performed in accordance with, the job duties, and/or responsibilities of the persons holding the below listed positions in the IBM organization in the United States, including Puerto Rico:

President
Treasurer
Vice President
General Manager
Partner
Associate Partner

Position titles that include the words:

Attorney
Business Operations Manager
Client Manager
Client Relationship Representative
Client Unit Executive
Contract Administrators
Contracts & Negotiations
Contract Professional
Counsel
Customer Fulfillment Manager
Customer Fulfillment Professional
Director
Executive
IT Architects
IT Consultants
IT Specialists
Program Manager
Project Manager
RFS Operations Specialist
RFS Portfolio Specialist
Sales Manager
Sales Representative
Sales Specialist
Software Client Leader (SCL)
Service Delivery Executive
Service Delivery Manager
Software Engineer
System Service Representative

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of said International Business Machines Corporation on this 5th day of September, 2014.



Jon J. Bancone
Associate General Counsel
IBM North America Sales and Distribution

SECTION 5

CONTRACT AND EDS EXECUTION PAGE
PLEASE EXECUTE THREE ORIGINAL PAGES OF EDS

The Applicant hereby certifies and warrants that all of the statements, certifications and representations set forth in this EDS are true, complete and correct; that the Applicant is in full compliance and will continue to be in compliance throughout the term of the Contract or County Privilege issued to the Applicant with all the policies and requirements set forth in this EDS; and that all facts and information provided by the Applicant in this EDS are true, complete and correct. The Applicant agrees to inform the Chief Procurement Officer in writing if any of such statements, certifications, representations, facts or information becomes or is found to be untrue, incomplete or incorrect during the term of the Contract or County Privilege.

Execution by Corporation

IBM Corporation

James Northern

James Northern, Client Manager, on behalf of Virginia Rometty, President (per attached Delegation of Authority Letter)

Corporation's Name

President's Printed Name and Signature

952-250-9970

jlnorthe@us.ibm.com

Telephone

Email

See Attached Delegation of Authority Letter

August 20, 2015

Secretary Signature

Date

Execution by LLC

LLC Name

*Member/Manager Printed Name and Signature

Date

Telephone and Email

Execution by Partnership/Joint Venture

Partnership/Joint Venture Name

*Partner/Joint Venturer Printed Name and Signature

Date

Telephone and Email

Execution by Sole Proprietorship

Printed Name Signature

Assumed Name (if applicable)

Date

Telephone and Email

Subscribed and sworn to before me this *26th* day of *Aug*, 2015.

My commission expires: *May 24, 2016*

Angela L. Sanchez
Notary Public Signature

OFFICIAL SEAL
ANGELA L. SANCHEZ
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 5-24-2016

*If the operating agreement, partnership agreement or governing documents requiring execution by multiple members, managers, partners, or joint venturers, please complete and execute additional Contract and EDS Execution Pages.

SECTION 6
COOK COUNTY SIGNATURE PAGE

ON BEHALF OF THE COUNTY OF COOK, A BODY POLITIC AND CORPORATE OF THE STATE OF ILLINOIS, THIS CONTRACT IS HEREBY EXECUTED BY:

John E. M.

COOK COUNTY CHIEF PROCUREMENT OFFICER

DATED AT CHICAGO, ILLINOIS THIS 28 DAY OF September, 2015

IN THE CASE OF A BID/ PROPOSAL/RESPONSE, THE COUNTY HEREBY ACCEPTS:

THE FOREGOING BID/PROPOSAL/RESPONSE AS IDENTIFIED IN THE CONTRACT DOCUMENTS FOR CONTRACT NUMBER

1418-14268

OR

ITEM(S), SECTION(S), PART(S): N/A

TOTAL AMOUNT OF CONTRACT: \$ 66,546,900.00

(DOLLARS AND CENTS)

FUND CHARGEABLE: _____

APPROVED BY BOARD OF
COOK COUNTY COMMISSIONERS.

SEP 09 2015

APPROVED AS TO FORM:

Karen J. McKeel

ASSISTANT STATE'S ATTORNEY
(Required on contracts over \$1,000,000.00)

Date