

CONTRACT CERTIFICATION

I, **DANILO F. AGSALOG**, Director of Finance of the County of Maui, State of Hawaii, do certify that there is available appropriation or balance of an appropriation over and above all outstanding contracts, sufficient to cover the amount required by the foregoing contract, i.e.

<u>Appropriation Index</u>	<u>Title</u>	<u>Amount Required</u>
<u>904015</u>	<u>IT SERVICES (7032)</u>	<u>\$1,000,000.00</u>

CONTRACT NO. C 5823 TYLER TECHNOLOGIES, INC.

Date: 30 day of JUNE 2015
Time of Performance: June 30, 2015-Dec 31, 2017



DANILO F. AGSALOG
Director of Finance

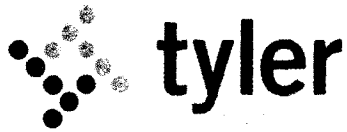
MAPPS-Mauis automated permitting
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of Management-IT Division, RFP 14-15/
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LICENSE AND SERVICES AGREEMENT

This License and Services Agreement is made between Tyler Technologies, Inc. and Client.

WHEREAS, Client selected Tyler to license the software products and perform the services set forth in the Investment Summary and Tyler desires to perform such actions under the terms of this Agreement;

NOW THEREFORE, in consideration of the foregoing and of the mutual covenants and promises set forth in this Agreement, Tyler and Client agree as follows:

SECTION A – DEFINITIONS

- **“Agreement”** means this License and Services Agreement.
- **“Client”** means Maui County, Hawaii.
- **“Defect”** means a failure of the Tyler Software to substantially conform to the functional descriptions set forth in our written proposal to you, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through our maintenance and support services, and the governing functional descriptions for such future functionality will be set forth in our then-current Documentation.
- **“Documentation”** means any online or written documentation related to the use or functionality of the Tyler Software that we provide or otherwise make available to you, including instructions, user guides, manuals and other training or self-help documentation.
- **“Effective Date”** means the date on which your authorized representative signs the Agreement.
- **“Force Majeure”** means an event beyond the reasonable control of you or us, including, without limitation, governmental action, war, riot or civil commotion, fire, natural disaster, or any other cause that could not with reasonable diligence be foreseen or prevented by you or us.
- **“Investment Summary”** means the agreed upon cost proposal for the software, products, and services attached as Exhibit A.
- **“Invoicing and Payment Policy”** means the invoicing and payment policy. A copy of our current Invoicing and Payment Policy is attached as Exhibit B.
- **“Maintenance and Support Agreement”** means the terms and conditions governing the provision of maintenance and support services to all of our customers. A copy of our current Maintenance and Support Agreement is attached as Exhibit C.
- **“Support Call Process”** means the support call process applicable to all of our customers who



have licensed the Tyler Software. A copy of our current Support Call Process is attached as Schedule 1 to Exhibit C.

- **“Third Party End User License Agreement(s)”** means the end user license agreement(s), if any, for the Third Party Software attached as Exhibit F.
- **“Third Party Hardware”** means the third party hardware, if any, identified in the Investment Summary.
- **“Third Party Products”** means the Third Party Software and Third Party Hardware.
- **“Third Party Software”** means the third party software, if any, identified in the Investment Summary.
- **“Tyler”** means Tyler Technologies, Inc., a Delaware corporation.
- **“Tyler Software”** means our proprietary software and related interfaces identified in the Investment Summary and licensed to you through this Agreement.
- **“we”, “us”, “our”** and similar terms mean Tyler.
- **“you”** and similar terms mean Client.

SECTION B – SOFTWARE LICENSE

1. License Grant and Restrictions.

- 1.1 We grant to you a license to use the Tyler Software for your internal business purposes only, in the scope of the internal business purposes disclosed to us as of the Effective Date. You may make copies of the Tyler Software for backup and testing purposes, so long as such copies are not used in production and the testing is for internal use only. Your rights to use the Tyler Software are perpetual but may be revoked if you do not comply with the terms of this Agreement.
- 1.2 The Documentation is licensed to you and may be used and copied by your employees for internal, non-commercial reference purposes only. **The Documentation is licensed, not sold.**
- 1.3 You may not: (a) transfer or assign the Tyler Software to a third party; (b) reverse engineer, decompile, or disassemble the Tyler Software; (c) rent, lease, lend, or provide commercial hosting services with the Tyler Software; or (d) publish or otherwise disclose the Tyler Software or Documentation to third parties.
- 1.4 The license terms in this Agreement apply to updates and enhancements we may provide to you or make available to you through your Maintenance and Support Agreement.
- 1.5 The right to transfer the Tyler Software to a replacement hardware system is included in your license. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance associated with such transfer.
- 1.6 We reserve all rights not expressly granted to you in this Agreement. The Tyler Software and

Documentation are protected by copyright and other intellectual property laws and treaties. We own the title, copyright, and other intellectual property rights in the Tyler Software and the Documentation. **The Tyler Software is licensed, not sold.**

- 1.7 Without limiting the foregoing, we acknowledge and agree that, to the extent you develop integrations or functionality outside of the Tyler Software, and without using the source code to the Tyler Software or our other proprietary information, you retain ownership of the intellectual property rights associated with that development work.
- 1.8 To the extent you use the MyGovPay/Virtual Pay functionality identified in the Investment Summary, the terms and conditions set forth in Exhibit E will also apply.
2. License Fees. You agree to pay us the license fees for the Tyler Software in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.
3. Escrow. We maintain an escrow agreement with a third party under which we place the source code for each major release of the Tyler Software. You may be added as a beneficiary to the escrow agreement by completing a standard beneficiary enrollment form and paying the annual beneficiary fee as set by the escrow company. That fee is currently \$750 per year, and is subject to change. You will be responsible for maintaining your ongoing status as a beneficiary, including payment of the then-current annual beneficiary fees. Release of source code for the Tyler Software is strictly governed by the terms of the escrow agreement.
4. Limited Warranty. We warrant that the Tyler Software will be without Defect(s) as long as you have a Maintenance and Support Agreement in effect. If the Tyler Software does not perform as warranted, we will use all reasonable efforts, consistent with industry standards, to cure the Defect as set forth in the Maintenance and Support Agreement. We further warrant that the Tyler Software has been verified on Microsoft-supported systems, and, as of the Effective Date, is operational on Windows Server 2012 R2.

SECTION C – PROFESSIONAL SERVICES

1. Services. We will provide you the various implementation-related services itemized in the Investment Summary. You will receive those services according to the Statement of Work set forth at Exhibit D, including but not limited to Deliverable 3-5 as it relates to hardware installation services, and the Systems Management specifications set forth at Exhibit I. For the avoidance of doubt, a disaster recovery environment, including both hardware and software, is not currently in scope. If you choose to alter the scope and/or mix of services provided as Systems Management or for hardware installation, or to add a disaster recovery environment to the scope, then a change order or amendment will be required to reflect the revised scope, as well as pricing and schedule impacts.

2. Professional Services Fees. You agree to pay us the professional services fees in the amounts set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy. The fees stated in the Investment Summary are fixed-price amounts based on the scope existing as of the Effective Date and further described in the Statement of Work, and subject to Section C(3), below.
3. Additional Services. The Investment Summary contains the scope of services and related costs (including programming and/or interface estimates) required for the project based on our understanding of the specifications you supplied. If additional work is required, or if you use or request additional services, we will provide you with an addendum or change order, as applicable, outlining the costs for the additional work. The price quotes in the addendum or change order will be valid for thirty (30) days from the date of the quote. For the avoidance of doubt, we agree to provide you with free access to TylerU for the duration of your implementation; upon go-live, access is provided on a billable basis only. You may purchase that access according to the terms of Section I(2). Extended support hours will be provided on a billable basis only, also according to the terms of Section I(2). The quoted optional rates for extended support coverage include services to be provided according to the following terms: we will provide additional support access to you until 5PM Hawaii time (regardless of daylight savings time). You will be able to make a call to the standard Help Desk support number, which will be answered by an answering service. That answering service will take the call, and then contact the on-call EnerGov support representative. That representative will then contact you directly. Items related to software development and hot fixes will not be addressed until the following business day. In the event the system is down, development staff will be contacted in the extended support hours to help resolve the issue.
4. Cancellation. We make all reasonable efforts to schedule our personnel for travel, including arranging travel reservations, at least two (2) weeks in advance of commitments. Therefore, if you cancel services less than two (2) weeks in advance (other than for Force Majeure or breach by us), you will be liable for all (a) non-refundable expenses incurred by us on your behalf, and (b) daily fees associated with cancelled professional services if we are unable to reassign our personnel. We will make all reasonable efforts to reassign personnel in the event you cancel within two (2) weeks of scheduled commitments.
5. Services Warranty. We will perform our services in a professional, workmanlike manner, consistent with industry standards. In the event we provide services that do not conform to this warranty, we will re-perform such services at no additional cost to you.
6. Site Access and Requirements. At no cost to us, you agree to provide us with full and free access to your personnel, facilities, and equipment as may be reasonably necessary for us to provide implementation services, subject to any reasonable security protocols or other written policies provided to us. You further agree to provide a reasonably suitable environment, location, and space for the installation of the Tyler Software and Third Party Products, including, without limitation, sufficient electrical circuits, cables, and other reasonably necessary items required for the installation and operation of the Tyler Software and Third Party Products.

7. Client Assistance. You acknowledge that the implementation of the Tyler Software is a cooperative process requiring the time and resources of your personnel. You agree to use all reasonable efforts to cooperate with and assist us as may be reasonably required to meet the agreed upon project deadlines and other milestones for implementation. This cooperation includes at least working with us to schedule the implementation-related services outlined in this Agreement. We will not be liable for failure to meet any deadlines and milestones when such failure is due to Force Majeure or to the failure by your personnel to provide such cooperation and assistance (either through action or omission). We agree that you may use and rely on third-party vendors to assist you with your roles in the project implementation, but you must facilitate our timely receipt of a Non-Disclosure Agreement from that third-party vendor, and you agree to be responsible for that vendor's adherence to the terms and conditions in that Non-Disclosure Agreement. Notwithstanding the foregoing, we reserve the right to protest your use of a third-party vendor to the extent that vendor is a direct Tyler competitor whose services would require access to our commercially sensitive information.

8. Prime Vendor. The fees set forth in the Investment Summary reflect our role as prime vendor under this Agreement for Environmental Systems Research Institute, Inc. ("Esri"). Terms applicable to Esri software and maintenance are addressed in Section E, below. We have executed a subcontract with Esri, under which they agree to provide defined services to you directly. Those services are described in Schedule 1 to our Statement of Work at Exhibit D, and are payable by you according to the terms set forth in the Invoicing and Payment Policy. Esri warrants that, for a period of ninety (90) days, measured from the day you accept the last Esri services, those Esri services will substantially conform to the professional and technical standards of the software industry. In the event of non-conformance, you may identify the non-conformance to use, and we will require that Esri re-perform those services at no additional cost. ANY WORK PRODUCT ESRI PROVIDES AS A RESULT OF ITS SERVICES, ALSO REFERRED TO BY ESRI AS "SERVICES OUTPUT, IS PROVIDED WITHOUT ANY WARRANTY WHATSOEVER. Any services you request or require from Esri, beyond the scope outlined in therein and the associated fees itemized in the Investment Summary, that request must be made through us, and will be subject to the terms of Section C(3). We will oversee and coordinate the delivery of the in-scope Esri implementation services.

SECTION D – MAINTENANCE AND SUPPORT

This Agreement includes the period of free maintenance and support services on the Tyler Software identified in the Invoicing and Payment Policy. If you have purchased ongoing maintenance and support services, and continue to make timely payments for them according to our Invoicing and Payment Policy, we will provide you with maintenance and support services for the Tyler Software under the terms of our standard Maintenance and Support Agreement.

If you have opted not to purchase ongoing maintenance and support services for the Tyler Software Products, the Maintenance and Support Agreement does not apply to you. Instead, you will only receive ongoing maintenance and support on the Tyler Software Products on a time and materials basis. In addition, you will:

- (i) receive the lowest priority under our Support Call Process;
- (ii) be required to purchase new releases of the Tyler Software Products, including fixes, enhancements and patches;
- (iii) be charged our then-current rates for support services, or such other rates that we may consider necessary to account for your lack of ongoing training on the Tyler Software Products;
- (iv) be charged for a minimum of two (2) hours of support services for every support call; and
- (v) not be granted access to the support website for the Tyler Software Products or the Tyler Community Forum;

SECTION E – THIRD PARTY PRODUCTS

1. Third Party Hardware. We will sell, deliver, and install onsite the Third Party Hardware, if you have purchased any, for the price set forth in the Investment Summary. Those amounts are payable in accordance with our Invoicing and Payment Policy.
2. Third Party Software. Upon payment in full of the Third Party Software license fees, as set forth in the Investment Summary and the Invoicing and Payment Policy, you will receive a non-transferable license to use the Third Party Software and related documentation for internal business purposes only. Your license rights to the Third Party Software will be governed by the Third Party End User License Agreement(s).
 - 2.1 If Esri charges a fee for future updates, releases, or other enhancements to the Third Party Software, you will be required to pay such additional future fee.
 - 2.2 The right to transfer the Third Party Software to a replacement hardware system is governed by Esri. You will give us advance written notice of any such transfer and will pay us for any required or requested technical assistance associated with such transfer.
3. Third Party Products Warranties.
 - 3.1 We are authorized by Esri to grant or transfer the licenses to the Third Party Software, according to the terms of this Agreement, and by you to serve as that “pass-through”.
 - 3.2 The Third Party Hardware will be new and unused, and upon payment in full, you will receive free and clear title to the Third Party Hardware.

3.3 You acknowledge that we are not the manufacturer of the Third Party Products. We do not warrant or guarantee the performance of the Third Party Products. However, we grant and pass through to you any warranty that we may receive from the third-party developers, such as the limited software warranty set forth in the Third-Party End User License Agreement. WITHOUT LIMITING THE FOREGOING, ESRI MAP DATA IS NOT WARRANTED BY ESRI IN ANY WAY. THAT MAP DATA MAY NOT BE FREE OF NONCONFORMITIES, DEFECTS, ERRORS OR OMISSIONS, BE AVAILABLE WITHOUT INTERRUPTION, BE CORRECTED IF ERRORS ARE DISCOVERED, OR MEET YOUR NEEDS OR EXPECTATIONS. YOU SHOULD NOT RELY ON ESRI MAP DATA UNLESS YOU HAVE VERIFIED THAT MAP DATA AGAINST ACTUAL DATA FROM DOCUMENTS OF RECORD, FIELD MEASUREMENT, OR OBSERVATION.

4. Maintenance. Maintenance and support of the Third-Party Software is provided according to the terms and conditions set forth in the Third-Party End User License Agreement. You will be responsible for third-party maintenance and support fees as set forth in the Invoicing and Payment Policy.

SECTION F – INVOICING AND PAYMENT; INVOICE DISPUTES

1. Invoicing and Payment. We will invoice you the fees for the license(s), products, and services in the Investment Summary per our Invoicing and Payment Policy, subject to Section F(2).
2. Invoice Disputes. If you believe any delivered product or service does not conform to the warranties in this Agreement, you will provide us with written notice within fifteen (15) days of your receipt of the applicable invoice. The written notice must contain sufficient detail of the issues you contend are in dispute. We will provide a written response to you that will include either a justification of the invoice, an adjustment to the invoice, or a proposal addressing the issues presented in your notice. We will work together as may be necessary to develop an action plan that outlines reasonable steps to be taken by each of us to resolve any issues presented in your notice. You may only withhold payment of the amount(s) actually in dispute until we complete the action items outlined in the plan. If we are unable to complete the action items outlined in the action plan because of your failure to complete the items agreed to be done by you, then you will remit full payment of the invoice. We reserve the right to suspend delivery of all services, including maintenance and support services, if you fail to pay an invoice not disputed as described above.

SECTION G – TERMINATION

1. For Cause. You may terminate this Agreement for cause in the event we don't cure, or create a mutually agreeable action plan to address, a material breach of this Agreement within forty-five (45) days of receiving a written notice of the alleged breach. You agree to comply with Section I(3), Dispute Resolution, prior to termination. In the event of termination for cause, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have received, or we have incurred or delivered, prior to the effective date of termination.

2. Lack of Appropriations. If you should not appropriate or otherwise make available funds sufficient to purchase, lease, operate, or maintain the products or services set forth in this Agreement, you may unilaterally terminate this Agreement upon thirty (30) days written notice to us. In the event of termination due to a lack of appropriations, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have received, or we have incurred or delivered, prior to the effective date of termination. You will not be entitled to a refund or offset of previously paid license and other fees. You will not use a termination for lack of appropriations as a substitute for termination for convenience.
3. Force Majeure. Either party has the right to terminate this Agreement if a Force Majeure event suspends performance of scheduled tasks for a period of forty-five (45) days or more. In the event of termination due to Force Majeure, you will pay us for all undisputed fees and expenses related to the software, products, and/or services you have received, or we have incurred or delivered, prior to the effective date of termination. You will not be entitled to a refund or offset of previously paid license and other fees.

SECTION H – INDEMNIFICATION, LIMITATION OF LIABILITY AND INSURANCE

1. Intellectual Property Infringement Indemnification.
 - 1.1 We will defend you against any third party claim(s) that the Tyler Software infringes that third party's patent, copyright, or trademark, or misappropriates its trade secrets, and will pay the amount of any resulting adverse final judgment (or settlement to which we consent). You must notify us promptly in writing of the claim and give us sole control over its defense or settlement. You agree to provide us with reasonable assistance, cooperation, and information in defending the claim at our expense.
 - 1.2 Our obligations under this Section H(1) will not apply to the extent the claim or adverse final judgment is based on your: (a) use of a previous version of the Tyler Software and the claim would have been avoided had you installed and used the current version of the Tyler Software; (b) combining the Tyler Software with any product or device not provided, contemplated, or approved by us; (c) altering or modifying the Tyler Software, including any modification by third parties at your direction or otherwise permitted by you; (d) use of the Tyler Software in contradiction of this Agreement, including with non-licensed third parties; or (e) willful infringement, including use of the Tyler Software after we notify you to discontinue use due to such a claim.
 - 1.3 If we receive information concerning an infringement or misappropriation claim related to the Tyler Software, we may, at our expense and without obligation to do so, either: (a) procure for you the right to continue its use; (b) modify it to make it non-infringing; or (c) replace it with a functional equivalent, in which case you will stop running the allegedly infringing Tyler Software immediately.

- 1.4 If, as a result of an infringement or misappropriation claim, your use of the Tyler Software is enjoined by a court of competent jurisdiction, in addition to paying any adverse final judgment (or settlement to which we consent), we will, at our option, either: (a) procure the right to continue its use; (b) modify it to make it non-infringing; (c) replace it with a functional equivalent; or (d) terminate your license and refund the license fees paid for the infringing Tyler Software. This section provides your exclusive remedy for third party copyright, patent, or trademark infringement and trade secret misappropriation claims.
2. Property Damage and Personal Injury Indemnification.
- 2.1 We will indemnify and hold harmless you and your agents, officials, and employees from and against any and all direct claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for personal injury or property damage to the extent caused by our negligence or willful misconduct.
- 2.2 To the extent permitted by applicable law, and subject to Maui County Council approval, you will indemnify and hold harmless us and our agents, officials, and employees from and against any and all direct claims, losses, liabilities, damages, costs, and expenses (including reasonable attorney's fees and costs) for personal injury or property damage to the extent caused by your negligence or willful misconduct.
3. **DISCLAIMER. EXCEPT FOR THE EXPRESS WARRANTIES PROVIDED IN THIS AGREEMENT AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, WE HEREBY DISCLAIM ALL OTHER WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES, DUTIES, OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**
4. **LIMITATION OF LIABILITY. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, OUR LIABILITY FOR DAMAGES ARISING OUT OF THIS AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED TO THE LESSER OF (A) YOUR ACTUAL DIRECT DAMAGES OR (B) THE AMOUNTS PAID BY YOU UNDER THIS AGREEMENT. THE PRICES SET FORTH IN THIS AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO CLAIMS THAT ARE SUBJECT TO SECTIONS H(1) AND H(2).**
5. **EXCLUSION OF CERTAIN DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**
6. Insurance. During the course of performing services under this Agreement, we agree to maintain the following levels of insurance: (a) Commercial General Liability of at least \$1,000,000; (b)

Automobile Liability of at least \$1,000,000; (c) Professional Liability of at least \$1,000,000; and (d) Workers Compensation complying with applicable statutory requirements. We will add you as an additional insured and provide you with copies of certificates of insurance upon written request.

SECTION I – GENERAL TERMS AND CONDITIONS

1. Additional Products and Services. You may purchase additional Tyler products and services at the rates set forth in the Investment Summary for twelve (12) months from the Effective Date, and thereafter at our then-current list price, by executing a mutually agreed addendum. The terms of this Agreement will control any such additional purchase(s), unless otherwise specifically provided in the addendum.
2. Optional Items. Pricing for any listed optional Tyler services in the Investment Summary will be valid for six (6) months from the Effective Date.
3. Dispute Resolution. You agree to provide us with written notice within thirty (30) days of becoming aware of a dispute. You agree to cooperate with us in trying to reasonably resolve all disputes, including, if requested by either party, appointing a senior representative to meet and engage in good faith negotiations with our appointed senior representative. Senior representatives will meet at your office within thirty (30) days of the written dispute notice, unless otherwise agreed. All meetings and discussions between senior representatives will be deemed confidential settlement discussions not subject to disclosure under Federal Rule of Evidence 408 or any similar applicable state rule. If we fail to resolve the dispute, either of us may assert our respective rights and remedies in a court of competent jurisdiction. Nothing in this section shall prevent you or us from seeking necessary injunctive relief during the dispute resolution procedures.
4. Taxes. The fees in the Investment Summary do not include any taxes, including, without limitation, sales, use, or excise tax. If you are a tax-exempt entity, you agree to provide us with a tax-exempt certificate. Otherwise, we will pay all applicable taxes to the proper authorities and you will reimburse us for such taxes. If you have a valid direct-pay permit, you agree to provide us with a copy. For clarity, we are responsible for paying our income taxes, both federal and state, as applicable, arising from our performance of this Agreement.
5. Nondiscrimination. We will not discriminate against any person employed or applying for employment concerning the performance of our responsibilities under this Agreement. This discrimination prohibition will apply to all matters of initial employment, tenure, and terms of employment, or otherwise with respect to any matter directly or indirectly relating to employment concerning race, color, religion, national origin, age, sex, sexual orientation, ancestry, disability that is unrelated to the individual's ability to perform the duties of a particular job or position, height, weight, marital status, or political affiliation. We will post, where appropriate, all notices related to nondiscrimination as may be required by applicable law.

6. E-Verify. We have complied, and will comply, with the E-Verify procedures administered by the U.S. Citizenship and Immigration Services Verification Division for all of our employees assigned to your project.
7. Subcontractors. You agree that we may subcontract the services identified in the Investment Summary and described in Schedule 1 to the Statement of Work to Esri. We will not subcontract any additional services under this Agreement without your prior written consent, not to be unreasonably withheld.
8. No Assignment. Neither party may assign this Agreement without the prior written consent of the other party; provided, however, that your consent is not required in the event we have a change of control. In the event of such a change in control, you shall be notified within thirty (30) days, except as prohibited by law, and given the option to terminate this agreement without penalty. In the event of such a termination, you will pay us for all software and services delivered, and all expenses incurred, through the effective date of termination. You will not be entitled to a refund or offset of previously paid license or other fees.
9. Force Majeure. Neither party will be liable for delays in performing its obligations under this Agreement to the extent that the delay is caused by Force Majeure; provided, however, that within ten (10) business days of the Force Majeure event, the party whose performance is delayed provides the other party with written notice explaining the cause and extent thereof, as well as a request for a reasonable time extension equal to the estimated duration of the Force Majeure event.
10. No Intended Third Party Beneficiaries. This Agreement is entered into solely for the benefit of you and us. No third party will be deemed a beneficiary of this Agreement, and no third party will have the right to make any claim or assert any right under this Agreement. This provision does not affect the rights of third parties under any Third Party End User License Agreement(s).
11. Entire Agreement; Amendment. This Agreement, including all exhibits and schedules thereto, represents the entire agreement between you and us with respect to the subject matter hereof, and supersedes any prior agreements, understandings, and representations, whether written, oral, expressed, implied, or statutory. The Agreement also includes your Request for Proposal, our Proposal, your Best and Final Offer instructions, our response to the BAFO, and the supplemental questions and responses, all of which are incorporated herein by reference. In the event of conflict between these documents, the following order of priority shall control: (1) this Agreement, including all exhibits and schedules thereto; (2) our response to your supplemental questions; (3) our response to the BAFO; (4) our Proposal; (5) your BAFO instructions; and (6) your RFP. This Agreement may only be modified by a written amendment signed by an authorized representative of each party.
12. Severability. If any term or provision of this Agreement is held invalid or unenforceable, the remainder of this Agreement will be considered valid and enforceable to the fullest extent

permitted by law.

13. No Waiver. In the event that the terms and conditions of this Agreement are not strictly enforced by either party, such non-enforcement will not act as or be deemed to act as a waiver or modification of this Agreement, nor will such non-enforcement prevent such party from enforcing each and every term of this Agreement thereafter.
14. Independent Contractor. We are an independent contractor for all purposes under this Agreement.
15. Notices. All notices or communications required or permitted as a part of this Agreement must be in writing and will be deemed delivered upon the earlier of the following: (a) actual receipt by the receiving party; (b) upon receipt by sender of a certified mail, return receipt signed by an employee or agent of the receiving party; (c) upon receipt by sender of proof of email delivery; or (d) if not actually received, five (5) days after deposit with the United States Postal Service authorized mail center with proper postage (certified mail, return receipt requested) affixed and addressed to the other party at the address set forth on the signature page hereto or such other address as the party may have designated by proper notice. The consequences for the failure to receive a notice due to improper notification by the intended receiving party of a change in address will be borne by the intended receiving party.
16. Client Lists. You agree that we may identify you by name in client lists, marketing presentations, and promotional materials.
17. Confidentiality. Both parties recognize that their respective employees and agents, in the course of performance of this Agreement, may be exposed to confidential information and that disclosure of such information could violate rights to private individuals and entities, including the parties. Confidential information is nonpublic information that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information (*e.g.*, social security numbers) and trade secrets, each as defined by applicable state law. Each party agrees that it will not disclose any confidential information of the other party and further agrees to take all reasonable and appropriate action to prevent such disclosure by its employees or agents. The confidentiality covenants contained herein will survive the termination or cancellation of this Agreement. This obligation of confidentiality will not apply to information that:
 - (a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents;
 - (b) a party can establish by reasonable proof was in that party's possession at the time of initial disclosure; or
 - (c) a party receives from a third party who has a right to disclose it to the receiving party.

Moreover, the parties understand and agree that this Agreement is subject to Hawaii's Uniform

Information Practices Act, Haw. Rev. Stat. §92F-1 et seq (the UIPA). The UIPA requires State agencies to disclose to the public “government purchasing information, including all bid results,” and the compensation amount, duration, and objectives of government contracts. Haw. Rev. Stat. §§ 92F-12(3) and 92F-12(10). The parties further acknowledge, however, that the UIPA exempts from public disclosure any records that are protected from disclosure under federal or state law, such as confidential trade secrets that are protected under, for example, the Hawaii Trade Secrets Act, § 482B-1 et seq. Accordingly in the event of a legitimate disclosure request under the UIPA, you agree to notify us promptly of the scope of the request, and we agree to identify promptly any trade secret information impacted by the request that should be withheld from public disclosure.

To the extent you opt to videotape a training session we provide to you, you agree that you will treat the videotape of that session as confidential information, subject to the terms set forth above. Moreover, you agree that verbal “commitments” that would alter the scope of Tyler’s responsibilities under this Agreement are not effective unless and until they are documented in writing as an amendment or change order.

18. Business License. In the event a local business license is required for us to perform services hereunder, you will promptly notify us and provide us with the necessary paperwork and/or contact information so that we may timely obtain such license.
19. Governing Law. This Agreement will be governed by and construed in accordance with the laws of the State of Hawaii, without regard to its rules on conflicts of law. Any court actions brought related to this agreement by either party shall be brought in the Second Circuit Court for the State of Hawaii or the U.S. District Court for the District of Hawaii.
20. Multiple Originals and Signatures. This Agreement may be executed in multiple originals, any of which will be independently treated as an original document. Any electronic, faxed, scanned, photocopied, or similarly reproduced signature on this Agreement or any amendment hereto will be deemed an original signature and will be fully enforceable as if an original signature.
21. Contract Documents. This Agreement includes the following exhibits:

Exhibit A	Investment Summary
Exhibit B	Invoicing and Payment Policy Schedule 1: Estimated 5-Year Payment Analysis Target by Fiscal Year
Exhibit C	Maintenance and Support Agreement Schedule 1: Support Call Process
Exhibit D	Statement of Work Schedule 1: Esri Scope of Services
Exhibit E	MyGovPay/IVR Terms
Exhibit F	Esri End User License Agreement
Exhibit G	Sample Project Plan with Estimated Project Schedule

C5823

Exhibit H	Project Org Chart
Exhibit I	Systems Management Product Sheet
Exhibit J	Hardware Scope and Specifications

CONTRACTOR EXECUTION PAGE

I hereby represent and warrant that I have the legal right and authority to execute this License and Services Agreement on behalf of the Contractor.

TYLER TECHNOLOGIES, INC.
Local Government Division

By: 

Name: Dane Wamble

Title: COO, Local Govt Div

Date: 6/30/15

Address for Notices:

Tyler Technologies, Inc.
5519 53rd Street
Lubbock, Texas 79414
Attention: Brett Cate

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STATE OF HAWAII)
) SS.
County of Maui)

On this 30th day of June, 2015, before me personally appeared Dave Womble, to me personally known, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable, in the capacity shown, having been duly authorized to execute such instrument in such capacity.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.



Michelle L. Esteban
 Notary Public, State of Hawaii

Print Name: MICHELLE L. ESTEBAN

My commission expires: 8-14-2015

NOTARY PUBLIC CERTIFICATION

Doc. Date: 6-30-2015 # Pages: 173

Notary Name: MICHELLE L. ESTEBAN Judicial Circuit: 2nd

Doc. Description: Tyler Technologies License
And Services Agreement (C5823)



Notary Signature: Michelle L. Esteban

Date: 6-30-2015

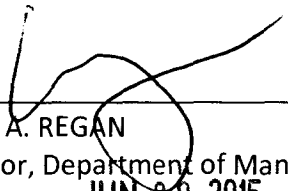


COUNTY EXECUTION PAGE

COUNTY OF MAUI

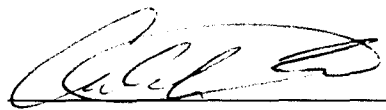
By 
 ~~DANILO F. AGSALOG~~ MARK R. WALKER
Its Director of Finance Its Acting
Date: JUN 30 2015 Director of Finance *mku/NP*

APPROVAL RECOMMENDED:



KEITH A. REGAN
Director, Department of Management
Date: JUN 30 2015

APPROVED AS TO FORM AND LEGALITY:



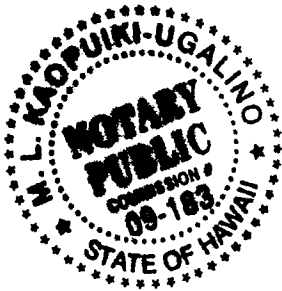
Deputy Corporation Counsel
Date: 6/30/15

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STATE OF HAWAII)
) SS.
 COUNTY OF MAUI)

On this 30th day of June, 2015, before me appeared MARK R. WALKER, to me personally known, who being by me duly sworn, did say that he is the Acting Director of Finance of the County of Maui, a political subdivision of the State of Hawaii, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed on behalf of said County of Maui pursuant to Section 9-18 of the Charter of the County of Maui; and the said MARK R. WALKER acknowledged the said instrument to be the free act and deed of said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.



M. L. Kaopuiki-Ugalino
 Notary Public, State of Hawaii
 Print Name: M. L. KAOPUIKI-UGALINO
 My commission expires: MAY 17 2017

NOTARY PUBLIC CERTIFICATION			
Doc. Date:	<u>JUN 30 2015</u>	# Pages:	<u>173</u>
Notary Name:	<u>M. L. KAOPUIKI-UGALINO</u>	Judicial Circuit:	<u>Second</u>
Doc. Description: <u>Contract No. C5823, MAPPS-</u> <u>Maui's Automated Permitting and Planning System,</u> <u>Dept of Management, IT Division, RFP No</u> <u>14-15/P-20</u>			
Notary Signature:	<u>M. L. Kaopuiki-Ugalino</u>		
Date:	<u>JUN 30 2015</u>		

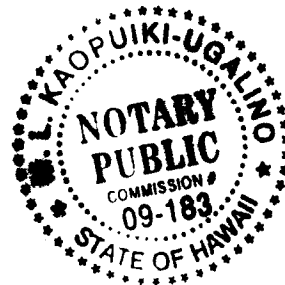




Exhibit A
Investment Summary

The following Investment Summary details the software, products, and services to be delivered by us to you under the Agreement. This Investment Summary is effective as of the Effective Date. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

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EnerGov Software		Qty Licenses	Cost / Rate	Total Cost	Annual Maintenance
Permitting & Land Mgmt Suite (PLM): Permitting, Planning, Projects, Inspections, Land Use, Object/Operating, Impact, Request & Enforcement Processes		unl	unlimited	\$ 699,999	\$ 140,000
Framework Enabling Products & Extensions		Cost / Unit			
Electronic Plans Review - EnerGov eReviews (Seamless BlueBeam Integration)		1	\$ 59,999	\$ 59,999	\$ 12,000
GIS Integration - EnerGov GIS		unlimited	\$ 500	\$ 35,000	\$ 7,000
Credit Card Processing- VirtualPay		1	N/A	Included	
Server-Side Plugins/ Additional Extensions					
EnerGov Adv Server Extensions Bundle:		1	\$ 14,999	\$ 14,999	\$ 3,000
Intelligent Automation Agent (IAA)		1-inc	Included in bundle	Included in bundle	
Social IO Extension (IOE)		1-inc	Included in bundle	Included in bundle	
EnerGov Odata		1-inc	Included in bundle	Included in bundle	
EnerGov Reporting Toolkit		1	\$ 4,999	\$ 4,999	\$ 1,000
Citizen Connected Products		Cost / Unit			
EnerGov Citizen Access ePortal Permitting, Land Mgmt & LRM		1	\$ 60,000	\$ 60,000	\$ 12,000
EnerGov's Decision Engine		1	\$ 9,999	\$ 9,999	\$ 2,000
Online Payments: My GovPay		1	N/A	Included	
Mobile / Field Solutions		Cost / Unit			
IG Workforce Apps		75	\$ 999.00	\$ 74,925	\$ 14,985
Other					
ESRI Software (see detailed ESRI proposal)			Included*	\$ 400,000	\$ 147,400
Subtotal Software			one time	\$ 1,359,920	
Additional Regional Discount*		5.00%		\$ 67,996	
Grand Total - Software			one time	\$ 1,291,924	\$ 339,384

Professional Services			Subtotal	
Professional Services (EnerGov Project)			\$ 1,534,025	\$ 15,172
Professional Services (Esri Project)			\$ 457,545	
Grand Total for Professional Services			\$ 1,991,570	\$ 15,172
Hardware			Subtotal	
EnerGov Hardware / Server Infrastructure			\$ 149,750	
Installation Services			\$ 37,400	
Grand Total for Hardware			\$ 187,150	\$ -
Software and Professional Services Totals				
Total Software			\$ 1,291,924	
Total Professional Services			\$ 1,991,570	
Total Installation Services			\$ 37,400	
Total Hardware			\$ 149,750	
GRAND TOTAL (Software and Prof Services)			\$ 3,470,644	
Total Annual Support & Maintenance	annual		\$ 354,556	Base Rate

Tyler Systems Management Services			Total	
Annual Systems Management Services Fee			\$ 48,397	Base Rate

Optional Services			Total	
Tyler U			\$ 8,000	Payable annually in advance; rate held three (3) years from Effective Date.

Extended Support

\$ 51,789

Payable annually in advance, subject to 5% escalator, applied year-over-year, for five (5) years. Thereafter, extended support provided at Tyler's then-current rates



Exhibit B Invoicing and Payment Policy

We will provide you with the software, products, and services set forth in the Investment Summary. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

Invoicing: We will invoice you for the applicable license fees, products, and services in the Investment Summary as set forth below. All payment amounts are also summarized, for your general reference purposes only, on a fiscal year basis in Schedule 1 to this Exhibit. In the event of a conflict between this Exhibit B and Schedule 1 thereto, this Exhibit B will control. Except as otherwise set forth below, payment for undisputed invoices is due within forty-five (45) days of the invoice date. Your rights to dispute any invoice are set forth in the Agreement.

1. Tyler Software.

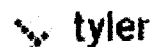
- 1.1 **License Fees:** License fees are invoiced as follows: (a) 25% (\$227,981) on the Effective Date; (b) 50% (\$455,962) on the date when we make the applicable Tyler Software available to you for downloading (the "Available Download Date"); and (c) 25% (\$227,981) on the earlier of (i) sign-off of System Acceptance/UAT (Stage 9), as set forth in the Statement of Work; or (ii) June 30, 2017.
- 1.2 **Maintenance and Support Fees:** Maintenance and support fees on the Tyler Software are waived from July 1, 2015 through January 1, 2016. Maintenance and support fees in the amount of \$108,200 are payable on January 1, 2016 for the period ending June 30, 2016. In advance of July 1, 2016, we will invoice you for the full Year 2 maintenance and support fees of \$207,156. Subsequent maintenance and support fees are invoiced annually in advance of July 1. Fees for years 3 through 5 are set forth below:

Year 3: \$217,514
Year 4: \$228,389
Year 5: \$239,809

Thereafter, maintenance and support fees will be invoiced at Tyler's then-current rates.

- 1.3 **Systems Management:** Fees for Systems Management are waived from July 1, 2015 through June 30, 2016. Thereafter, we will invoice you fees for system management annually in advance. Fees for years 2 through 5 are set forth below:

Year 2: \$48,397
Year 3: \$50,817
Year 4: \$53,357
Year 5: \$56,025



Thereafter, Systems Management fees will be invoiced at Tyler's then-current rates.

2. Tyler Professional Services.

2.1 *Tyler's Implementation and Other Professional Services (including training):* Implementation and other professional services (including training) will be billed according to the milestones set forth below. Notwithstanding those milestones, we agree not to invoice you for more than \$460,207 in professional services in year 1 (July 1, 2015-June 30, 2016). In the event we are in a position to deliver services that would be payable on a timeframe that would result in an overage of your \$2,000,000 project budget cap for year 1, you will work with us to adjust the project schedule so that our deliverables align with your budget amounts and calendar. You acknowledge this may include a temporary pause or ramp-down in project deliverables by us as we accommodate your budget cycle. Alternatively, you will authorize us to proceed without pause or ramp-down, and invoice you for milestones that will be payable in excess of that cap. Professional services fees for year 2 (July 1, 2016-June 30, 2017) will not exceed \$1,073,818, unless we do not charge you the full \$460,207 in year 1, in which case any unbilled fees for services delivered will also be invoiced in year 2. Total Tyler professional services will not exceed \$1,534,025, except as we might otherwise mutually agree to according to the terms of the Agreement.

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MILESTONES CONTINUE ON FOLLOWING PAGE

Stage 1 - Project Initiation & Planning			
Deliverable 1-1	Project Team Fundamentals Training	* 3 weeks onsite project team training (1 trainer)	\$76,701.25
Deliverable 1-2	Project Initiation & Planning Tasks	Project Initiation and Project Mgmt Tasks	
Stage 2 - Prototype Configuration and Acceptance Stage			
Deliverable 2-1	Business Transaction / Use Case Classification review and prioritization	(assume 1 week to build report) - Identify which use cases / business transactions make most sense to address in prototype phase	\$18,408.30
Deliverable 2-2	Assessment of Prototype Business Transactions	Assess & Define at least 5 and no more than 10 business transactions, no more than 5 geo-rules, core components for prototype only	\$42,952.70
Deliverable 2-3	Configure prototypes	Configure at least 5 and no more than 10 business transactions, no more than 5 geo-rules, core components for prototype only	\$53,506.25
Deliverable 2-4	Internal Review and Test of Prototypes	Test prototype configurations and core components	\$7,670
Deliverable 2-5	Specifications and Development	No more than 5 custom reports/output documents	\$16,103.75
Deliverable 2-6	Acceptance Planning and Acceptance Testing	Prototype configurations and components only	\$30,103.75

Stage 3 - Assess & Define			
Deliverable 3-1	Assess & Define Business Transactions	Specification Design for remaining (up to 90) County-based EnerGov Business Transactions (Case/Record Types)	\$61,361.00 (4 payments, totaling \$245,444)*
Deliverable 3-2	Assess & Define Geo-Rules	Specification Design for up to 25 Geo-Rules	
Deliverable 3-3	Assess & Define Core Components	Specifications for Core System Configuration (Rights, Roles, Security, Contacts etc)	
Deliverable 3-4	Assess & Define Stage Project Management	Project Management for Stage	
Deliverable 3-5	Installation of EnerGov Environment /Hardware	Installation	\$37,400
Stage 4 - System Configuration			
Deliverable 4-1	Configure Business Transactions	Configuration for remaining (non-prototype) EnerGov Business Transactions (Case/Record Types)	\$82,500 (4 payments, totaling \$330,000)*
Deliverable 4-2	Configure Geo-Rules	Configure up to remaining balance of 25 Geo-Rules	
Deliverable 4-3	Configure Core Components	Specifications for Core System Configuration (Rights, Roles, Security, Contacts etc)	
Deliverable 4-4	Configure Stage Project Management	Project Management for Stage	
Stage 5 - Configuration - Internal Test			
Deliverable 5-1	Internal Test of EnerGov Configuration	Internal Review and Test of County based EnerGov Business Transactions (Case/Record Types) and core system configuration.	\$69,031.25

Stage 6- Build Specifications			
Deliverable 6-1	Develop Report / Output Document Specifications	Specification Design for up to remaining balance of 30 Reports/Output Documents	\$76,701.25
Deliverable 6-2	Develop Integration Specifications	See Integrations List for itemized integration scope detail	
Deliverable 6-3	Develop Data Conversion Specifications & Mapping	See Data Conversion List for itemized Conversion sources scope detail	
Deliverable 6-4	Build Specs Stage Project Management	Project Management for Stage	
Stage 7- Build			
Deliverable 7-1	Develop Report / Output Documents	Develop up to remaining balance of 30 custom reports/output documents	\$53,500 (4 payments, totaling \$214,000)*
Deliverable 7-2	Develop Integrations	See Integrations List for itemized integration scope detail	
Deliverable 7-3	Develop Data Conversion Utilities	See Data Conversion List for itemized Conversion sources scope detail	
Deliverable 7-4	Build Stage Project Management	Project Management for Stage	
Stage 8- System Acceptance Planning			
Deliverable 8-1	Provide User Acceptance / Power User Training	County Testers to be Trained - 2 weeks of Onsite EnerGov Training (1 trainer)	\$76,701.25
Deliverable 8-2	UAT Planning Assistance / Tasks	UAT Planning assistance, test script development oversight	
Deliverable 8-3	Integrations Testing	Tyler end-to-end integration tests	
Deliverable 8-4	Data Conversion Testing	Tyler end-to-end data conversion tests / iterations improvements	
Deliverable 8-5	System Acceptance Planning Stage Project Management	Project Management for Stage	
Stage 9- System Acceptance / UAT			
Deliverable 9-1	UAT Configuration Resolution	Resolve configuration issues (within scope) during user acceptance testing process	\$200,000
Deliverable 9-2	System Acceptance Planning Stage Project Management	Project Management for Stage	

Stage 10 - User Training			
Deliverable 10-1	End User Training	County End Users to be Trained - 3 weeks of Onsite EnerGov Training (3 trainers)	\$76,701.25
Deliverable 10-2	End User Training - supplemental	120 hours of Training Documentation / preparation	
Deliverable 10-3	Training Stage Project Management	Project Management for Stage	
Stage 11 - Production / Production Support			
Deliverable 11-1	Onsite Post Production Support	4 weeks of Onsite Production Support Resources (2 Tyler onsite resources)	\$76,701.25
Deliverable 11-2	Production Transition	Technical resources for production transition (not to exceed 2.5 weeks duration)	
Deliverable 11-3	Cutover Integrations & Technical support	See Integrations List for Itemized integration scope detail	
Deliverable 11-4	Final Cutover Data Conversion Utilities & technical support	See Data Conversion List for itemized Conversion sources scope detail	
Deliverable 11-5	Production Stage Project Mgmt	Project Management for Stage	

*These amounts are invoiced by Deliverable as follows:

For Stage 3 (Assess & Define), upon delivery of specification design documents, in 3 increments of approximately 30 non-prototype business transactions each, and a final payment upon delivery of all other Stage 2 Deliverables, exclusive of Deliverable 3-5.

For Stage 4 (System Configuration), upon delivery of configurations, in 3 increments of approximately 30 non-prototype business transactions, and a final payment upon delivery of all other Stage 3 Deliverables/Stage sign-off.

For Stage 7 (Build), upon sign-off of each Deliverable (7-1, 7-2, 7-3, and 7-4) within the Stage.

For the avoidance of doubt, the milestones set forth in Stage 2 (Prototype Configuration and Acceptance Stage) are payable upon sign-off of each Deliverable within the stage. All other milestones amounts, not discussed above, are payable on the milestone of Stage sign-off, as defined in the Statement of Work.

3. **Hardware.** We will invoice you for hardware fees up to \$149,750 upon delivery of hardware itemized in Exhibit J, as requested. At your request, we will provide one (1) business week of onsite services to deliver an initial assessment and evaluation of your technical infrastructure for a fixed cost of \$9,500. If you exercise this request, we will deduct the \$9,500 from the milestone payment amount associated with Deliverable 3-5, above.



4. Third Party Products and Services

4.1 *Third Party Software License Fees:* We will invoice you \$258,875 in license fees for Third Party Software are invoiced when that software is made available to you for downloading. We will invoice you an additional \$121,125 in license fees for Third Party Software on the earlier of (i) sign-off of System Acceptance/UAT (Stage 8), as set forth in the Tyler Statement of Work; or (ii) June 30, 2017.

3.2 *Third Party Software Maintenance:* Year 1 maintenance and support fees on the Third Party Software are waived from July 1, 2015 through June 30, 2016. Subsequent maintenance and support fees will be invoiced annually in advance of July 1, and directly by Esri to you. Fees for years 2 through 5 are set forth below:

Year 2: \$78,600
 Year 3: \$147,400
 Year 4: \$147,400
 Year 5: \$147,400

Thereafter, maintenance and support fees will be invoiced at Esri's then-current rates.

4.2 *Third Party Services:* We will invoice you for Esri's implementation and other professional services according to the milestones set forth below. Notwithstanding those milestones, we agree not to invoice you for more than \$417,545 in Esri professional services in year 1 (July 1, 2015-June 30, 2016). Professional services in year 2 (July 1, 2016-June 30, 2017) will not exceed \$40,000, unless we do not invoice you the full \$417,545 for Esri professional services in year 1, in which case any unbilled fees for services delivered will also be invoiced in year 2. Total Esri professional services will not exceed \$457,545, except as we, you and Esri might otherwise mutually agree to according to the terms of the Agreement.

Deliverable / Payment	Task Description	Milestone Payment
Deliverable 1	Project Initiation & Planning	\$21,240.00
Deliverable 2	Requirements Gathering	\$48,380.00
Deliverable 3	System Architecture Design	\$65,785.00
Deliverable 4	Migrate to LGIM	\$188,800.00
Deliverable 5	Portal Configuration and LGIM Apps	\$58,115.00
Deliverable 6	Mobile Deployments	\$37,760.00
Deliverable 7	Training	\$37,465.00

Expenses. The fees set forth above for Tyler and Esri are inclusive of travel expenses. For Tyler, those fees are premised on no more than 65 trips by Tyler personnel, where a "trip" is understood to be travel of up to five (5) business days by a single Tyler employee.

Payment. We prefer to receive payments electronically. Our electronic payment information is:

Bank:	Wells Fargo Bank, N.A. 420 Montgomery San Francisco, CA 94104
ABA:	121000248
Account:	4124302472
Beneficiary:	Tyler Technologies, Inc. – Operating





Exhibit B
Schedule 1
Estimated 5-Year Payment Analysis Target by Fiscal Year

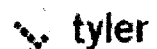
Description	Payments					5 Year Total
	YR1	YR2	YR3	YR4	YR5	
	7/1/15 - 6/30/16	7/1/16 - 6/30/17	7/1/17 - 6/30/18	7/1/18 - 6/30/19	7/1/19 - 6/30/20	
EnerGov:						
Software	683,943	227,981	-	-	-	911,924
Hardware	149,750					149,750
Installation Services	37,400	-	-	-	-	37,400
Implementation Services	460,207	1,073,818	-	-	-	1,534,025
ASM- Tyler Software	108,200	207,156	217,514	228,389	239,809	1,001,068
Systems Management Services	-	48,397	50,817	53,357	56,025	208,596
ESRI:						
Software	258,875	121,125	-	-	-	380,000
Services	417,545	40,000	-	-	-	457,545
ASM	-	78,600	147,400	147,400	147,400	520,800
Totals	2,115,920	1,797,077	415,731	429,146	443,234	5,201,108



Exhibit C Maintenance and Support Agreement

We will provide you with the following maintenance and support services for the Tyler Software licensed to you. Capitalized terms not otherwise defined will have the meaning assigned to such terms in the Agreement.

1. **Term.** We provide maintenance and support services on an annual basis. The initial term commences on July 1, 2015. The term will renew automatically for additional one (1) year terms unless terminated in writing by either party at least thirty (30) days prior to the end of the then-current term.
2. **Maintenance and Support Fees.** Your initial maintenance and support fees for the Tyler Software licensed to you, and for any custom integrations and reports, are listed in the Investment Summary of your Agreement. Those amounts are payable in accordance with our Invoicing and Payment Policy. We reserve the right to suspend maintenance and support services if you fail to pay undisputed maintenance and support fees within sixty (60) days of the due date. We will reinstate maintenance and support services only if you pay all past due maintenance and support fees, including all fees for the periods during which services were suspended.
3. **Maintenance and Support Services.** As long as you are trained on the Tyler Software, and timely pay your maintenance and support fees, we will, consistent with our then-current Support Call Process:
 - 3.1 perform our maintenance and support obligations in a professional, good, and workmanlike manner, consistent with industry standards, to conform the Tyler Software to the warranty set forth in your Agreement; provided, however, that if you modify the Tyler Software without our consent, our obligation to provide maintenance and support services on and warrant the Tyler Software will be void;
 - 3.2 provide telephone support during our established support hours;
 - 3.3 maintain personnel that are sufficiently trained to be familiar with the Tyler Software and Third Party Software in order to provide maintenance and support services;
 - 3.4 provide you with a copy of all releases to the Tyler Software (including updates and enhancements to the core Tyler Software, as well as its core integrations with other Tyler proprietary software, such as iasWorld, and custom integrations for which you are paying maintenance and support) that we make generally available without additional charge to customers who have a maintenance and support agreement in effect; and
 - 3.5 support prior releases of the Tyler Software in accordance with our then-current release life cycle policy.



4. **Client Responsibilities.** We will use all reasonable efforts to perform any maintenance and support services remotely. Currently, we use a third-party secure unattended connectivity tool called Bomgar, as well as GotoAssist by Citrix. Therefore, you agree to maintain a high-speed internet connection capable of connecting us to your PCs and server(s). You agree to provide us with a login account and local administrative privileges as we may reasonably require to perform remote services. We will, at our option, use the secure connection to assist with proper diagnosis and resolution, subject to any reasonably applicable security protocols. If we can't resolve a support issue remotely, we may be required to provide onsite services. In such event, you agree to provide us with full and free access to the Tyler Software, working space, adequate facilities within a reasonable distance from the equipment, and use of machines, attachments, features, or other equipment reasonably necessary for us to provide the maintenance and support services, all at no charge to us. We strongly recommend that you also maintain a VPN for backup connectivity purposes.
5. **Excluded Services.** Maintenance and support fees do not include fees for the following services: (a) initial installation or implementation of the Tyler Software; (b) onsite maintenance and support (unless Tyler cannot remotely correct a defect in the Tyler Software); (c) application design; (d) other consulting services; (e) maintenance and support of an operating system or hardware; (f) support outside our normal business hours as listed in our then-current Support Call Process; or (g) installation, training services, or third party product costs related to a new release. Requested maintenance and support services beyond those outlined in this section will be billed to you at our then current rates. We do not guarantee resolution of a Defect in a version of the Tyler Software Products older than one version behind the then-current release. We reserve the right to decline support calls from users who have not received the required training on the Tyler Software.
6. **Current Support Call Process.** Our current Support Call Process for the Tyler Software is attached to this Exhibit C at Schedule 1.

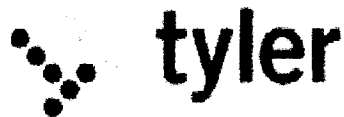


Exhibit C Schedule 1 EnerGov Support Call Process

Support Channels

We provide the following channels of EnerGov software support:

- (1) Telephone – for urgent or complex questions, users receive toll-free, unlimited telephone software support.
- (2) Email – for less urgent situations, users may submit unlimited emails directly to the software support group. Email will be used for responses.
- (3) On-line submission – for less urgent and project-based questions, users may create unlimited support incidents through the customer relationship management portal available at the Tyler Technologies website.
- (4) Tyler Community – an on-line resource, Tyler Community provides a venue for all Tyler clients with current maintenance agreements to support one another, share best practices and resources, and access documentation.

During the Implementation to Support handoff meeting, at the conclusion of the client's project, Tyler representatives will provide the most current toll-free telephone number and email address for submitting support incidents, based on the software licensed.

Support Availability

Our established software support hours are Monday through Friday from 7:00 AM – 7:00 PM Central Time. Tyler's holiday schedule is outlined below. There will be no support coverage on these days.

New Year's Day	Thanksgiving Day
Memorial Day	Day after Thanksgiving
Independence Day	Christmas Eve
Labor Day	Christmas Day

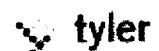
Issue Handling

Incident Tracking

When a support incident cannot be resolved during its initiation, the client receives an incident tracking number for that issue. The incident tracking number is used to track and reference open issues when clients contact support.

Incident Escalation

Tyler's software support consists of four levels of personnel:



- (1) Software Support Analysts – front-line representatives
- (2) Software Support Advisors – more senior in their support role, the Advisors assist Software Support Analysts and take on escalated issues
- (3) Software Support Team Leads – responsible for the day-to-day supervision of Analysts and Advisors and may assist in incident escalations
- (4) Software Support Managers – responsible for the management of support teams for either a single product or a product group

On occasion, the priority or immediacy of a software support incident may change after initiation. Tyler encourages clients to communicate the level of urgency or priority of software support issues so that we can respond appropriately. A software support incident can be escalated by any of the following methods:

- (1) Telephone – for immediate response, call toll free to either escalate an incident's priority or to escalate an issue through management channels as described above.
- (2) Email – clients can send an email to software support in order to escalate the priority of an issue
- (3) On-line Support Incident Portal – by logging into the client incident portal and referencing the appropriate incident tracking number, clients can modify the priority of an issue.

Incident Priority

Each incident is assigned a priority number, which corresponds to the client's needs and deadlines. The client is responsible for reasonably setting the priority of the incident per the below chart. The goal of this structure is to clearly understand and communicate the importance of the issue and to describe expected responses and resolutions.

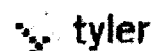
Issue Priorities & Resolutions			
Priority Level	Characteristics of Support Incident	Resolution Targets	Development Actions
1	Support incident that causes (a) complete application failure or application unavailability; (b) application failure or unavailability in one or more of the client's remote location; or (c) systemic loss of multiple essential system functions.	Tyler shall provide an initial response to Priority Level 1 incidents within one (1) business hour of receipt of the support incident. Tyler shall use commercially reasonable efforts to resolve such support incidents or provide a circumvention procedure within one (1) business day. Tyler's responsibility for loss or corrupted data is limited to assisting the client in restoring its last available database	Hot Fix – Emergency patch to software as soon as possible

Issue Priorities & Resolutions			
Priority Level	Characteristics of Support Incident	Resolution Targets	Development Actions
2	Support incident that causes (a) repeated, consistent failure of essential functionality affecting more than one user or (b) loss or corruption of data.	Tyler shall provide an initial response to Priority Level 2 incidents within four (4) business hours of receipt of the support incident. Tyler shall use commercially reasonable efforts to resolve such support incidents or provide a circumvention procedures within five (5) business days. Tyler's responsibility for loss or corrupted data is limited to assisting the client in restoring its last available database.	Bi-weekly patch – regularly-scheduled patch
3	Priority Level 1 incident with an existing circumvention procedure, or a Priority Level 2 incident that affects only one user or for which there is an existing circumvention procedure.	Tyler shall provide an initial response to Priority Level 3 incidents within one (1) business day of receipt of the support incident. Tyler shall use commercially reasonable efforts to resolve such support incidents without the need for a circumvention procedure with the next published maintenance update or service pack, which shall occur at least quarterly. Tyler's responsibility for lost or corrupted data is limited to assisting the client in restoring its last available database.	Next Release – Scheduled for the next major release
4	Support incident that causes failure of non-essential functionality or a cosmetic or other issue that does not qualify as any other Priority Level.	Tyler shall provide an initial response to Priority Level 4 incidents within two (2) business days. Tyler shall use commercially reasonable efforts to resolve such support incidents within two version release cycles and a cosmetic or other support incident that does not qualify as any other Priority Level incident with a future version release.	Future release – not scheduled; reviewed at next planning stage

Hardware and Other Systems

If in the process of diagnosing a software support issue it is discovered that a peripheral system or its software is the cause of the issue, we will notify the client so that the client may contact the support agency for that peripheral system. We cannot support or maintain third-party software or hardware.

In order for us to provide the highest level of software support, the client bears the following responsibility related to hardware and software:



- (1) All infrastructure executing Tyler software shall be managed by the client.
- (2) Support contracts for all third-party software (ex: operating systems, database management systems) associated with Tyler software shall be maintained. Tyler does not support these third-party products.
- (3) Daily database backups must be performed; client shall verify the backups are successful.

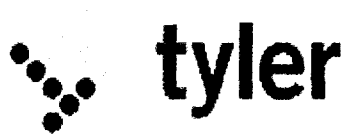


Exhibit D

Statement of Work

For EnerGov Software and Implementation

Prepared for:

Mauli County, HI

Prepared by:

Tyler Technologies, Inc.
2160 Satellite Blvd, Suite 300
Duluth, GA 30087
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SCOPE OF WORK:

Maui County (also referred to herein as the "Customer") is acquiring a spectrum of Tyler's EnerGov software, to be deployed in the following process. What follows is an overview of the process and criteria for acceptance of each stage and deliverable during the implementation of that software. This document (the "SOW") includes:

- The tasks to be accomplished within each stage
- The resources and expectations required of both Tyler and the County
- The stakeholders engaged
- Risk identification
- Success factors
- Invoicing and payment procedures
- Attachments

The Customer has opted to include a "prototype" stage, as discussed in further detail below. For the avoidance of doubt, the total in-scope business processes and other fixed deliverables, regardless of whether they are provided during the prototype stage or subsequent non-prototype stages, are:

- 100 Business Case Transactions
- 30 Geo-Rules
- 30 Custom Reports

Core component services are limited to the in-scope deliverables itemized above.

Glossary of Terms

- **Advise:** A responsibility designation in the stage task and deliverable lists set forth in this Statement of Work, signifying that the associated party is meant to provide guidance to the "Owning" party.
- **Business Case Transaction:** The defined configuration of an automated business process in which documents and/or other information is passed from one participant to another (or others) for action according to a set of shared procedural rules. Where several transactions rely on the same set of procedural rules, a single configuration will apply to the otherwise unique workflows. Where one transaction depends on the automation of one or more distinct procedural rule(s), a new configuration will be required for that transaction. The configuration consists of the following components, where uniqueness of these components constitutes a new and unique business case transaction:
 - The to-be configured business process workflow, including output actions
 - Automation logic
 - Fee assessment and configuration definition
 - Custom fields and forms definition.

The final business case transaction documents finalized during Assess & Define stage will serve as the baseline "scope" for the EnerGov system configuration within the subsequent Configuration stage.

- **Custom Report/Output Document:** A unique form template that pulls data from the EnerGov system to generate an output report that presents the data for user consumption.
- **Deliverable:** A tangible output to be delivered during the associated stage, as identified in this Statement of Work. High-level critical path deliverables will be presented with a Deliverable Expectation Document.
- **Geo-Rule:** An automation event that is triggered by a condition configured around the source Esri geodatabase. Current georule events are:

Alert	Displays a pop-up with a custom message to the user, notifying them of certain spatial data (i.e. noise abatement zones; flood zones; etc.).
Block	Places a block on the case and prevents any progress or updates from occurring on the record (i.e. no status changes can be completed, no fees can be paid, the workflow cannot be managed, etc.)
Block with Override	Places a block on the case and prevents any progress or updates from occurring on the record (i.e. no status changes can be completed, no fees can be paid, the workflow cannot be managed, etc.) However, the block can be overridden by end-users who have been given the proper securities.
Fee Date	Populates the CPI vesting date on the record if vesting maps are used by the jurisdiction.
Filed Mapping	A custom field or any field inherent in the EnerGov application can automatically populate with information based on spatial data.
Required Action	A workflow action can automatically populate in the workflow details for the particular record (i.e. plan, permit, code case, etc.) that requires the action based on certain spatial data related to the case.
Required Step	A workflow step can automatically populate in the workflow details for the particular record (i.e. plan, permit, code case, etc.) that requires the step based on certain spatial data related to the case.
Zone Mapping	The zone(s) automatically populate on the "Zones" tab of the record (i.e. plan, permit, code case, etc.)

- **Intelligent Automation Agent (IAA):** A tool designed to automate tasks in a proactive manner by setting values and generating emails and other tasks. On a nightly basis, a Windows service sweeps the EnerGov system looking for IAA conditions that have been met, and the associated actions are then performed. The IAA does not generate alerts or errors.
- **Intelligent Objects (IOs):** Key components for automatically and reactively triggering geo-rules, computing fees, and generating emails, alerts and other notifications
- **Milestone:** A mutually agreed to project event that triggers a County payment obligation, as set forth in Exhibit B of the Agreement
- **None:** A responsibility designation in the stage task and deliverable lists set forth in this Statement of Work, signifying that the associated party is meant to
- **Own:** A responsibility designation in the stage task and deliverable lists set forth in this Statement of Work, signifying that the associated party is meant to take the lead and has ultimate responsibility for the given task or deliverable.
- **Participate:** A responsibility designation in the stage task and deliverable lists set forth in this Statement of Work, signifying that the associated party is meant to engage actively on the given task or deliverable, with the leadership and/or direction of the "Owning" party.
- **Stage:** Any one of the ten steps outlined in this Statement of Work that comprises a series of related tasks and deliverables to be performed over the course of the implementation of the EnerGov software.
- **Task:** An activity or other performance event to be completed within a defined stage, as outlined in this Statement of Work.

Stage Signoffs, Progression and Tracing

Each stage set forth below includes tasks and deliverables, with participation in those tasks and deliverables divided between the parties. The project is designed to provide opportunities for review and acceptance of deliverables within that stage, and the stage as a whole. This is sometimes referred to as an iterative, or waterfall, approach. While tasks and deliverables within a stage may occur, or be provided, concurrently, each stage is performed consecutively. That is, because each stage is dependent on the results of the previous stage, a new stage cannot begin until the previous stage is completed.

In this project, however, the parties have agreed to a modified waterfall approach. That is, during the Assess & Define stage (Stage 2), the parties will identify a limited set of use cases (at least 5, but no more than 10) that will be built and configured as prototypes to allow the County to test the functionality delivered, as compared to the functionality required and itemized in design specifications. The County will then perform functional unit testing as transactions and functionality are built and configured. This will allow the County to validate prototype use cases, as well as the ongoing creation of functional elements. It will also allow the County to focus on the integration of various functional elements from end-to-end use case perspective prior to go-live.

Use cases will also define whether the functional and technical requirements set forth in the County's RFP, as responded to by Tyler in its Proposal, are being satisfied. Configuration specifications for each use case, and the successful UAT signoff of those use cases, will constitute the successful delivery of the agreed-upon functionality. As an added measure of traceability, Tyler will provide traceability between the written specifications delivered during Assess & Define for each use case, and the requirements that the County identifies as being tied to that use case. The County will then script UAT to trace the requirements specifically tied to the use cases. Any requirements that do not specifically trace to a use case will be tracked by the County's IV&V consultant.

As deliverables and tasks are being worked on by Tyler, it will be customary for Tyler to be presenting draft deliverables or other task outputs to the County for its simultaneous review.

Upon completion of a deliverable or, as applicable, a task, the Customer will have an opportunity to review the deliverable or task. Except as otherwise agreed by the parties, the Customer will have a ten-day business window within which to identify to Tyler a deviation in the deliverable (or task) from the warranties provided in the parties' agreement or the criteria the parties have agreed to for a given deliverable (or task). Business days shall be understood to be Customer business days, unless otherwise agreed to. In the event a deviation is reasonably identified and confirmed, Tyler will address the deviation according to the terms of the Support Call Process or the services warranty provision set forth in the Agreement, as applicable. When a corrected deliverable has been resubmitted for review, that process shall repeat. When all tasks and deliverables within a stage have been performed and accepted, as applicable, that stage is considered complete. Upon stage completion, Tyler will provide the customer with a Work Acceptance Form (SOW Attachment A) to document that fact. Unless otherwise agreed to by the parties, the Customer must return the completed Work Acceptance form within five business days of receipt. In the event the Customer fails to provide the form within that timeframe, and does not otherwise advise Tyler of a reasonable basis for withholding signoff, the stage will be deemed "accepted," and the parties will move on to the next stage.

Project Scope – Maui County

Stage 0 - Software Delivery

Objectives:

- The EnerGov software the County has licensed is made available to the County for downloading. This is referred to as the date when the EnerGov software is "delivered."

Deliverables Scope: Tyler will provide the following deliverables:

(0-1): EnerGov Software Delivered / Made Available for Download

Stage 1 – Project Initiation & Planning

Objectives:

- Train County staff that will be involved in the EnerGov implementation (Project Team Fundamentals Training).
- Introduce the project and provide a detailed review of Stages, Tasks and Milestones/Deliverables
- Distribute forms and gather high-level organizational and process information
- Establish communication channels (Project Manager, SMEs, Permitting Systems Coordinator, etc.)
- Finalize project plan, including Esri implementation, with plans for permitting and GIS integrated with appropriate dependencies into one global plan.
- Finalize plan for staff mobilization & allocation, with the project plan identifying expected participation level and roles of County, and defined process for warning County in advance of when commitments will be required from County, or when the timing of those commitments may change
- Tyler to provide direction and advice on how best to address unstructured data (e.g., archive, convert, subset, etc.)
- Tyler to provide direction and advice on County's infrastructure and to make hardware upgrade recommendations as necessary.

Deliverables Scope: Tyler will provide the following deliverables:

(1-1): Project Team Fundamentals Training – 3 weeks onsite (1 Tyler Trainer)

(1-2): Project Initiation & Planning Tasks

Stage Tasks Responsibilities:

Stage 1 – Project Initiation & Planning		
Tasks	Tyler	Customer
Conduct Planning/Initiation Introductory Conference Call	Own	Participate
Tyler trainer to provide instructor led training "Project Team Fundamentals Training" geared to bring system knowledge to the County's key team members	Own	Participate
Key Customer staff and systems administrators attend training	None	Own
Assign Project Team Members	Advise	Own
Provide/Assign facilities for Tyler on-site activities	Advise	Own
Identify non-working days (i.e. vacations, holidays, etc.)	Own	Participate
Define procurement and configuration plan for necessary hardware, non EnerGov systems software and networking infrastructure by the Customer as specified by Tyler's Hardware / Infrastructure requirements documentation	Advise	Own
Provide Tyler remote access (when needed) to required server for Tyler software installation and system configuration	Advise	Own
Deliver and review Process and Configuration Collection	Own	Participate

Templates		
Create SharePoint site to manage project deliverables, documents, JAT and other aspects of the overall implementation	Own	None
Deliver and review Project Status Report Template	Own	Participate
Deliver and review Sample Signoff Form	Own	Participate
Deliver and review GIS requirements and best practices documentation	Own	Participate
Deliver and review Data Conversion Template Database (DCT-DB), ERDs and usage documentation	Own	Participate
Finalize any software installation needs	Own	Participate
Identify and document project risks and resolutions	Own	Participate
Amend project scope/SOW as needed	Own	Participate
Deliver and review preliminary updated Project Plan	Own	Participate
Deliver Project Planning & Initiation Stage Sign Off to County	Own	None
Return Project Planning & Initiation Stage Sign Off to Tyler	None	Own

Stage 2 – Prototype Configuration and Acceptance Stage

Deliverables Scope:

(2-1) Classify, Review and Prioritize Prototypes

Tyler to gain a high-level understanding about how the County conducts business, documenting a collective listing of business transaction cases, to identify which business transactions and geo rules are best candidates for prototype stage.

(2-2) Assess and Define Prototypes

Tyler will assess and define at least 5, and no more than 10, business transactions, no more than 5 geo-rules, and core components for those prototypes only

Business case transaction design document acceptance criteria: County will review and sign off on each configuration transaction document. The design document will be considered delivered upon signoff. The County will be allowed to review the document for one change and update iteration before signoff. The County will not withhold signoff of design documents for an unreasonable amount of time.

(2-3) Configure Prototypes

Tyler will provide configuration services for the prototypes that have been assessed in defined as part of deliverable 2-2.

(2-4) Internal Review and Test

Tyler will conduct an internal review and test of the configured prototype transactions

(2-5) Specification and Development

Tyler will develop and deliver specifications for no more than 5 custom reports.

(2-6) Prototype Acceptance Planning and Prototype Acceptance

The prototype configurations will be promoted to a production and/or training environment, and User Acceptance Testing of the prototypes will take place.

(2-7) Prototype Project Management

Tyler will provide project management duties for the stage.

Stage Tasks Responsibilities:

Prototype Configuration and Acceptance Stage		
Tasks	Tyler	Customer
Configure the prototypes based upon the design definitions established in the previous Assess & Define stage	Own	Participate
Perform ongoing configuration reviews and obtain configuration signoff	Own	Participate
Conduct basic system configuration testing/retesting walkthrough	Own	Participate
Record testing results in SharePoint	Own	Participate
Resolve any system issues identified	Own	None
Develop specifications document per prototype custom report	Own	Participate
Develop prototype custom report	Own	Participate
Develop and review acceptance schedule and criteria	Own	Participate
Provide UAT training (train user acceptance testers)	Own	Participate
Provide facilities suitable to training and testing needs	Advise	Own
Recommend test strategies, scenarios and test acceptance practices	Own	Participate
Develop test scripts and testing criteria	Participate	Own
Deploy prototype configurations into the Production testing environment	None	Own
Record testing results in SharePoint	None	Own
User Acceptance Testing for prototype acceptance	None	Own
Develop additional test scripts and testing criteria for UAT	None	Own
Resolve high priority issues that would prevent promotion to production uncovered (and are within scope) during UAT	Own	Advise
Deliver Prototype Configuration and Acceptance Stage Sign Off to County	Own	None
Return Prototype Configuration and Acceptance Stage Sign Off to Tyler	None	Own

Stage 3 – Assess & Define**Objectives:**

- Translate and “Define” business understanding into the “to-be” non-prototype and documented EnerGov business case transaction definition design documents (EnerGov configuration design documentation)
- Tyler to assess the County’s current data state, both structured and unstructured, to help define the County’s strategy and approach for data conversion. Tyler will provide guidance on Tyler’s expectations of County’s efforts to “cleanse” its data, and what Tyler can provide to assist the County programmatically as part of the conversion process.

Deliverables Scope:

(3-1) Assess & Define Business Transactions

Tyler will provide a business case transaction design document for non-prototype EnerGov business case transactions. The same acceptance criteria for these business case transactions design documents as the criteria set forth in Stage 2 will apply.

(3-2) Assess & Define Geo-Rules

Tyler will provide a specifications design document for non-prototype geo-rules.

(3-3) Assess & Define Core System Components

Tyler will provide specifications design documentation for non-prototype Core System Configuration (Rights, Roles, Security, Contacts, and other central core configuration components) for the departments users and processes within scope.

(3-4) Assess & Define Stage Project Management

Tyler will provide project management duties for the stage. This project management will include administration and coordination of the Esri project.

(3-5) Installation of EnerGov Environment

Tyler will provide the following technical installation services:

- Rack and install servers for the EnerGov project in the Maui data center
- Work with Customer IT staff to implement these servers within the existing Network
- Setup and configure VMware on the newly procured servers
- Setup stage, test and production virtual servers for the EnerGov project
- Setup and install SQL servers
- Setup and install EnerGov software

The environment will consist of the following virtual servers:

Production Servers

- 3x Application Servers
- 2x Web Servers
- 2x SQL Servers
- File Server
- Reporting Server

Staging Servers

- Application Server
- Web Server
- SQL Server

Test Server

- Application Server
- Web Server
- SQL Server

Detailed specifications and best practices are set forth in the Specifications Reference document, provided at Exhibit I to the Agreement.

The Customer must provide the Data Center infrastructure to house equipment and all networking, electrical, heating and cooling. Tyler will work with the Customer to implement equipment within the Active Directory network provided by the Customer.

For the avoidance of doubt, Tyler is not responsible for, and is not providing, any Esri related hardware.

Stage Tasks Responsibilities:

Assess & Define		
Tasks	Tyler	Customer
Scope and document configuration specifications documents	Own	Participate
Deliver and review configuration documents/packets	Own	Participate
Coordinate with the Esri GIS implementation to collaborate on GIS related design assessment elements	Own	Participate
Install of EnerGov software and verify successful installation	Own	Participate
Provide at least three, and no more than five, software environments	Own	Participate
Deliver Assess & Define Stage Sign Off form to Customer	Own	None
Return Assess & Define Stage Sign Off to Tyler	None	Own

Stage 4 - System Configuration

Objectives:

- Configure the EnerGov software in accordance with design definitions established within the Assess & Define stage
- To the extent the County wants any customized test scripts for UAT, these must be identified during this stage, and any additional scope for customized test scripts must be added through a change order.

Deliverables Scope:

(4-1) Configure Business Transactions

Tyler will provide configuration services for up to non-prototype EnerGov business case transactions, as previously defined

(4-2) Configure Geo-Rules

Tyler will configure non-prototype geo-rules, as previously designed

(4-3) Configure Core System Components

Tyler will provide configuration services for the non-prototype core EnerGov system (Rights, Roles, Security, Contacts etc) for the department users and processes within scope. Tyler will configure the user security rights according to the County instructions, and the County must then monitor system access and usage according to those configurations.

(4-4) Configure Stage Project Management

Tyler will provide project management duties for the stage. This project management will include administration and coordination of the Esri project

Stage Tasks Responsibilities:

System Configuration		
Tasks	Tyler	Customer
Configure the software based upon the design definitions established in the previous Assess & Define stage	Own	Participate
Perform ongoing configuration reviews and obtain configuration signoff	Own	Participate
Deliver System Configuration Stage Sign Off to Customer	Own	None
Return System Configuration Stage Sign Off to Tyler	None	Own

Stage 5 – Configuration - Internal Test

Objectives:

- o Conduct Initial operational test - Tyler to begin vetting local performance and load testing against non-prototype published specifications in what will become end-to-end testing through UAT
- o Confirm proper configuration
- o PMO review and audit

Tasks:

Internal Test		
Tasks	Tyler	Customer
Conduct basic system configuration testing/retesting walkthrough	Own	Participate
Record testing results in SharePoint	Own	Participate
Resolve any system issues identified	Own	None
Other tasks as identified	Own for respective team	Own for respective team
Deliver Internal Testing Stage Sign Off to Customer	Own	None
Return Internal Testing Stage Sign Off to Tyler	None	Own

Stage 6 - Build Specifications

Objectives:

- o Translate and "Define" non-prototype reporting, data conversion and integration requirements into the "to-be" developed EnerGov design definition documents

Deliverables Scope:

(6-1) Develop Report / Output Document Specifications

Tyler will provide specification design documents for non-prototype in-scope custom reports/ output documents

(6-2) Develop Integration Specifications

Tyler will develop integration design specifications for all integrations within scope (see below for listing of all integrations within scope)

(6-3) Develop Data Conversion Specifications & Mapping

Tyler will develop data conversion mapping specifications and criteria for a successful conversion for all data sources to be converted within scope (see below for listing of all data conversion sources within scope)

(6-4) Build Specs Stage Project Management

Tyler will provide project management duties for the stage

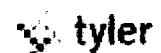
Integrations within Scope:

Description	Type / Description	Direction
qPublic	Tyler will post an XML data feed of EnerGov case data through its open data service	One way – to be made available and consumed one-way by the County's qPublic portal
State of HI Licensing Integration	Validation of State Contractor Licensure	One Way – web service to be provided in standard EnerGov schema
Application Extender / Doc Mgmt	Document Mgmt integration	One way push to document mgmt. system – requires third party web service
iNovah Cashiering	Integration to county cashiering system	Bi-directional requires third party web service
Point & Pay Online Credit Card Processing	Online Credit card processing / CAP	Online processing / bi-directional
Maintenance Connection	Tyler to make available proper work order trigger & data elements for County Maintenance Mgmt system call	Requires third party web service & third party provider to develop call
PVL	Tyler to make available proper trigger & data elements for County PVL system	Requires third party web service & third party provider to develop call

In addition, for fees associated with this milestone, Tyler is developing logic that allows its proprietary iasWorld software and its proprietary EnerGov software to post and consume relevant business processes in an exchange through those systems.

Data Conversions within Scope:

Source System	Source Platform	Functional Description	Detail
KIVA	RDMS/Oracle	Permits, Applications and Case records	Primary Permitting System
Paradox	Paradox	Secondary Data Source	
County Tracking DB	Access DB	Secondary Data Source	

Stage Tasks Responsibilities:

Build Specifications - Output Documents		
Tasks	Tyler	Customer
Develop specifications document per report/integration/data source	Own	Participate
Deliver and review specification documents	Own	Participate
Obtain customer signoffs per output document specification	Own	Participate
Deliver Stage Sign Off form to County	Own	None
Return Stage Sign Off to Tyler	None	Own

Stage 7 - Build

Objectives:

- Develop the non-prototype reporting, data conversion and integrations specified within the "Build Specs" design definition documents

Deliverables Scope:

(7-1) Develop Report / Output Document Specifications

Tyler will develop non-prototype custom reports/ output documents.

(7-2) Develop Integrations

Tyler will develop integrations for all integrations within scope

(7-3) Develop Data Conversion Utilities

Tyler will develop data conversion utilities for all data sources to be converted within scope

(7-4) Build Stage Project Management

Tyler will provide project management duties for the stage.

Tasks:

Build Specifications - Output Documents		
Tasks	Tyler	Customer
Develop Report/output documents, Integrations and Data Conversion Utilities	Own	Participate
Review and deliver developed items	Own	Participate
Deliver Stage Sign Off form to County	Own	None
Return Stage Sign Off to Tyler	None	Own

Stage 8 - System Acceptance Planning

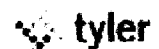
Objectives:

- System promoted to a production and/or training environment
- Train and prepare County power users for UAT effort (following stage)
- End to End Internal (Tyler) Testing of Conversions and Integrations

Deliverables Scope:

(8-1) Provide User Acceptance / Power User Training

County Testers to be Trained - 2 weeks of Onsite EnerGov UAT Training (1 trainer)



(8-2) UAT Planning Assistance / Tasks

Tyler will assist in UAT Planning tasks & test script assistance

(8-3) Integrations Testing

Tyler will test internally integrations developed

(8-4) Conversion Testing

Tyler will test internally conversion utilities developed

(8-5) System Acceptance Planning Stage Project Management

Tyler will provide project management duties for the stage

Tasks Responsibilities:

System Acceptance Testing		
Tasks	Tyler	Customer
Develop and review acceptance schedule and criteria	Own	Participate
Provide UAT training (train user acceptance testers)	Own	Participate
Provide facilities suitable to training and testing needs	Advise	Own
Recommend test strategies, scenarios and best acceptance practices	Own	Participate
Develop test scripts and testing criteria	Participate	Own
Deploy fully configured and imported master Energy database into the Production testing environment	None	Own
Conduct internal testing of developed integrations	Own	Advise
Conduct internal testing of imported data	Own	Advise
Record testing results in SharePoint	None	Own
Deliver System Acceptance Testing Stage Sign Off to County	Own	None
Return System Acceptance Testing Stage Sign Off to Tyler	None	Own

Stage 9 - System Acceptance / UAT**Objectives:**

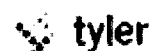
- User Acceptance Testing to take place, with Tyler providing functional test scripts out-of-the-box to the County and the County verifying test results.
- County to approve system for production use
- Tyler to validate and resolve issues County identifies during UAT, to the extent those identified issues are within scope

Deliverables Scope:**(9-1) UAT Configuration Resolution**

Tyler to resolve high priority configuration issues that would prevent production (and that are within scope) during user acceptance testing process

(9-2) System Acceptance Planning Stage Project Management

Tyler will provide project management duties for the stage.

Tasks Responsibilities:

System Acceptance Testing		
Tasks	Tyler	Customer
User Acceptance Testing for systems acceptance	None	Own
Develop additional test scripts and testing criteria for UAT	None	Own
Deploy fully configured and imported master EnerGov database into the Production testing environment	None	Own
Record testing results in SharePoint	None	Own
Resolve high priority issues that would prevent promotion to production uncovered (and are within scope) during UAT	Own	Advise
Deliver System Acceptance Testing Stage Sign Off to County	Own	None
Return System Acceptance Testing Stage Sign Off to Tyler	None	Own

Stage 10 - User Training

Objectives:

- Provide contracted-for hours of classroom end user training and knowledge transfer

Deliverables Scope:

(10-1) End User Training

Tyler to train County end users – 3 weeks of Onsite EnerGov Training (3 trainers)

(10-2) End User Training Supplemental

Tyler will provide 120 hours of Training Documentation / preparation

(10-3) Training Stage Project Management

Tyler will provide project management duties for the stage.

Tasks Responsibilities:

User Training		
Tasks	Tyler	Customer
Coordinate training logistics and schedule	Own	Participate
Provide facilities suitable to training needs	Advise	Own
Provide documentation development preparation	Participate	Participate
Conduct end user training of specified scope	Own	Participate
Deliver User Training Stage Sign Off to County	Own	None
Return User Training Stage Sign Off to Tyler	None	Own

Stage 11 – Production & Production Support

Objectives:

- Conduct final data import cutover & support
- Tyler to provide on-site end user production support

Deliverables Scope:

(11-1) Onsite Post Production Support

4 weeks of Onsite Production Support Resources (2 Tyler onsite resources)

(11-2) Production Transition

Tyler to provide technical resources for production transition (not to exceed 2.5 weeks)

(11-3) Cutover Integrations Support

Tyler will support integrations cutover process

(11-4) Final Cutover Data Conversion Utilities Support

Tyler will initiate and support data conversion cutover process

(11-5) Production Stage Project Management

Tyler will provide project management duties for the stage (not to exceed 2 month timeframe)

Tasks Responsibilities:

Production & Production Support		
Tasks	Tyler	Customer
Deliver fully configured database for Production data import to EnerGov	None	Own
Data Conversion cutover	Own	Participate
Integration cutover	Own	Participate
Deploy fully configured and imported master EnerGov database into the Production environment	None	Own
Provide onsite pre and post production support of specified scope	Own	None
Provide technical and functional user support and resolution	Participate	Own
Develop and maintain post-production issues list in SharePoint	Participate	Own
Ensure key/critical personnel are present and available to participate in production efforts	Advise	Own
Deliver Production & Production Support Stage Sign Off to County	Own	None
Return Production & Production Support Stage Sign Off to Tyler	None	Own

INVOICING AND CUSTOMER SIGNOFFS

Tyler will invoice the County consistent with Exhibit B of the parties' contract

KEY PROJECT ASSUMPTIONS

In addition to the terms and conditions set forth in the Contract, this Statement of Work is premised on the following Key Project Assumptions:

- Customer and Tyler shall review their responsibilities before work begins to ensure that services can be satisfactorily completed.
- Tyler expects to staff the project with the individuals and titles set forth in the Project Org Chart set forth at Exhibit H to the Contract. Tyler expects the County to identify the individuals fulfilling the titles set forth in the Project Org Chart no later than project kick-off.
- Esri will be responsible for leading the establishment of GIS governance. The project plan will identify the Esri lead on the governance effort, while Tyler will contribute GIS expertise through its GIS expert.

- The project plan will make clear when the last Esri deliverable is scheduled and how that coincides with the EnerGov implementation so that the County can track when it's 90-day Esri services warranty initiates.
- Live training will generally occur onsite, using EnerGov training data and scripted curriculum. Remote training sessions may be provided, as appropriate and agreed to by the parties. Specific timing and locations for training will be allocated during project planning.
- Customer will provide Tyler with access to its equipment, systems, and personnel to the extent needed to complete the defined services.
- Customer will provide work space for Tyler services for work completed on Customer premises. Tyler will seek to optimize its on-site time by scheduling its personnel for multiple weeks of on-site work. In connection with those extended durations, Tyler will provide commercially reasonable advance notice of those timeframes so that the County can make its required personnel available to support the intended Tyler work.
- Tyler shall initially implement the most current version of the Tyler software at the time of the contract signing. During the implementation Tyler will provide newer releases of the software that meet or exceed the version available at contract signing. After Go Live, the Customer is responsible for installing newer releases. Release notes are provided for all new versions.
- Customer will maintain primary responsibility for the scheduling of Customer employees and facilities in support of project activities.
- Customer shall provide Tyler with network access for remote installation and testing through industry standards such as Virtual Private Network (VPN) or other secure access methods.
- Customer is responsible for proper site preparation, hardware, software and network configuration in accordance with Tyler specifications. Initial specifications for onsite requirements are set forth below.
- Customer has, or will provide, access licenses and documentation of existing systems to which Tyler will read, write or exchange data.
- Customer has, or will provide, a development/testing environment for import and interface testing as they are developed by Tyler.
- Tyler shall be responsible for implementing a functioning version of the application software (assuming Customer has installed the proper hardware, software, and networking devices).
- Tyler will provide Customer with weekly status reports that outline the tasks completed. Tyler will also provide details regarding the upcoming tasks that need to be completed during the coming weeks, the resources needed (from Customer) to complete the tasks, a current or updated version of the project plan, and a listing of any issues that may be placing the project at risk (e.g., issues that may delay the project or jeopardize one or more of the production dates) as needed.
- To the extent the County relies on a third-party vendor to manage risks on behalf of the County, the County agrees that the third-party vendor will communicate on those risks through the County Project Manager. The County agrees that risks and all other project activity will be communicated to Tyler through one, consistent voice on behalf of the County.
- Tyler personnel shall attend executive project review committee meetings (internal) as needed.

ONSITE REQUIREMENTS

Requirements for onsite training:

- A computer for each person attending (max 12-15 ppl per session)
- High Speed Internet Connection
- Projector

- Whiteboard or Flip Chart/Dry Erase Markers
- Microsoft Silverlight installed on each computer

Requirements for onsite Tyler project team members:

- Internet access
- Workspace to perform client activities while not in meetings
- Conference Room availability to have meetings with SMEs, conference room should contain
 - Phone – in case we need to involve others remotely
 - Projector – in the event we want to demonstrate something from the software
 - Internet access – so we can access other pieces of information
 - Access to the servers – this will be handy in later stages when we begin to use their configuration to demonstrate completion of tasks
 - White board or dry erase board – for notes, visual concepts, discussion points

OUT OF SCOPE

If the County requires additional project hours, beyond those contracted for, and/or if the scope of the project changes in any degree, a Change Order or contract amendment will be required, according to the terms set forth in the parties' contract.

The following items are examples of those services that are considered out-of-scope:

- Resource hours or training days that extend scope.
- Custom access and portal to Tyler UI.
- Training on RedGate or Silverlight, or training certifications
- Additional configuration specifications (documents) over the specified quantity or configurations that change requirements from the signed and approved workflow configuration specifications.
- Additional reporting, integration or data conversion specifications or development outside the stated scope or changes to the development specifications post specification sign-off.
- Any undocumented requirements. Undocumented requirements include requirements beyond the normal capability of the software for its intended purpose. In addition, requirements from the County's RFP that Tyler identified as not currently within the functionality of the EnerGov software, and not currently included as an in-scope modification, must be added, as desired, through a Change Order or contract amendment. These include (a) requirement GIS #6; and (b) Enabling Tech #103.
- Configuration outside of configuration specifications developed. Any changes requested of the Tyler implementation team to alter the configuration, post specifications defined (assess & define stage) must be documented through a Change Order and will incur additional costs. Customer has access to all built-in configuration tools, and is free to reconfigure or create new configuration as required or desired

DATA CONVERSION (see tasks associated with data transfer, above)

One of the more difficult aspects of software transition revolves around data conversion. Data can be entered into a new system manually, but the time, expense and accuracy of this method falls short of most project requirements. Automating the process through the use of custom written code is faster, less expensive and more accurate but creates friction points between vendor and customer.

The following criteria are applied to Data Conversion

Data Format

The Customer must provide data to Tyler in the Data Conversion Template Database (DCT-DB) structure. Providing data in this format will ensure that data is properly imported into the system. Data not provided in this structure will not be considered for import.

Data Scrubbing/Cleansing

Any data scrubbing should be done by the Customer prior to populating the DCT-DB. Data scrubbing and cleansing is not included in project scope.

Required Fields

There are certain fields in the Tyler software which are required fields, and Tyler cannot write records to the master DB without populating these columns. Sometimes, these required fields will not be available in the legacy source data, so a simple default value can be written to the DCT-DB to fulfill the NOT NULL constraint.

Custom Fields

Most legacy systems will have some attribute fields that are not specified in the corresponding master table within DCT-DB. In the Tyler software, we will refer to these as custom fields. Within each module, there will be a child table for such custom fields. Since these are specific to the legacy system(s), the Customer may add columns to these tables in DCT-DB to accommodate any needed custom fields in the migration.

Parsing data

Address Data: Tyler does not parse out address information for optimization purposes. Rather, the Customer is responsible to deliver the address information in the requested (preferred format). Tyler will import the address data delivered (format) and map the fields to the best possible location in the Tyler system. Tyler is not responsible for cleanup of inconsistent addressing.

Phone Numbers: Phone numbers are imported in the format in which the data is delivered to Tyler. Tyler is not responsible for cleanup of inconsistent numbering or sequencing.

Individuals / Names: Individual names are imported in the format in which the data is delivered to Tyler. Tyler is not responsible for parsing out single name fields into First, Last, Middle, Company, etc.

Contacts Data: If contact data is not keyed in such a way that each instance of a person has one, and only one, contact record (the record with all of their attributes such as name, address, company, phone, etc.) in the data source, then the contacts associated with a record will typically be imported into a general information tab rather than into the EnerGov Enterprise Contacts Manager.

Business-Specific Rules

Business specific rules are handled in the software configuration process and cannot typically be mapped within the Data conversion process. This includes but is not limited to EnerGov Intelligent Objects and EnerGov Business Case Workflows.

Calendars & Scheduling

Tyler software can import scheduled hearings and meeting details; however any data residing on an actual calendar control is excluded from the scope of the data conversion.

RISK / MITIGATION STRATEGY

Tyler understands that Customer's IV&V team shall define and lead the risk and issue management process on behalf of Customer, and will work with Tyler, Customer staff and other project stakeholders throughout that process. The IV&V team

shall communicate with Tyler through the County, to ensure consistency of message. Tyler shall participate in risk management through the process mutually agreed to by the combined project team.

Unavailability/Incompatibility of Staff

Risk: Tyler recognizes that individuals assigned to projects may become unavailable due to various causes. Further, Tyler recognizes that individuals sometimes clash for reasons of incompatibility. Tyler schedules team members based on all the projects to which those individuals are assigned. Unavailability may occur due to unforeseen circumstances such family matters or their departure from Tyler employment. Incompatibility creates intolerance in project objectives and tasks and creates unnecessary delays and can lead to project failure if not corrected.

Mitigation: In the event a Tyler project member is determined to be unavailable, a Tyler manager will consult with Customer on alternatives such as a temporary replacement or substitute of the person. A similar response is expected from the Customer if their team member is unavailable.

Incompatibility is addressed first through attempts to resolve the compatibility issues between individuals. Failing resolution, team members must be replaced. In the event a Tyler team member is determined to be incompatible, Tyler will replace with a new team member and provide time to orient to the project before assuming their respective responsibilities.

County Staff Availability

Risk: Delays in the project timeline will occur if appropriate Customer staff is unavailable to meet with or respond to Tyler for timely decisions and/or directions. Tyler recognizes that individuals assigned to projects may become unavailable due to various causes. Unavailability may occur due to unforeseen circumstances such family matters or their departure from County employment.

Mitigation: In the event a County project member is determined to be unavailable, County's manager will consult with Tyler on alternatives such as a temporary replacement or substitute of the person. Customer should insure that staff assigned to this project is given sufficient priority and authority to work with Tyler while completing other Customer responsibilities in a timely fashion. Decisions must be made in hours and days, not weeks.

Activity Focus

Risk: Sometimes associated with efforts that lead to Scope Changes. Activity Focus is a risk that minor activities consume time that should be dedicated to major activities of the project with the end result that time and/or costs overruns budget. Examples include meetings of little substance or that go longer than they need or time consume investigating undocumented functionality or other activities not in scope.

Mitigation: Project Managers for both parties must guard themselves to avoid focus drift by insuring the focus is squarely on meeting deadlines, services, and configuration requirements of the implementation as planned and documented in the planning, assessment and definition stages.

Incomplete Legacy, Interface Documentation

Risk: During the project certain third party documentation will be required for such tasks as interface development and import of legacy data and others.

Mitigation: Customer should insure that APIs for interfacing to other systems is available to Tyler.

Achievable Goals

Risk: The expectations of this project are set too high or are not explicit or clear to Customer staff and thus not communicated to Tyler through functional requirements and clearly stated scope.

Mitigation: The parties must ensure, through the Contract and task orders, that the goals of the project are explicit, well defined and attainable and that both parties have "signed off" on the requirements.

Technology Age

Risk: This risk is highly dependent on the choice of Tyler products and whether the Customer is hosting any of those products. If the Customer will be hosting its own then the technology utilized should be robust enough for several years into the future. Technology that barely meets minimum requirements today will be insufficient as the system and needs of the system grow.

Mitigation: Tyler will assist Customer in determining optimal technology and plans to guard against pre-mature obsolescence.

CRITICAL SUCCESS FACTORS

In order to successfully execute the services described herein, there are several critical success factors for the project that must be closely monitored. These factors are critical in setting expectations between the Customer and Tyler, identifying and monitoring project risks, and promoting strong project communication.

- **Knowledge Transfer** - While Tyler cannot guarantee specific expertise for Customer staff as a result of participating in the project, Tyler shall make reasonable efforts to transfer knowledge to the Customer. It is critical that Customer personnel participate in the analysis, configuration and deployment of the Tyler software in order to ensure success and to transfer knowledge across the organization. After completion of the production phase, the Customer will be responsible for administering the configuration and introduction of new processes in the Tyler system.
- **Dedicated Customer Participation** - Tyler fully understands that Customer staff members have daily responsibilities that shall compete with the amount of time that can be dedicated to the Tyler implementation project. However, it is critical that the Customer acknowledges that its staff must be actively involved throughout the entire duration of the project as defined in the Project Plan. Tyler shall communicate insufficient participation of Customer and Tyler resources as well as the corresponding impact(s), through Project Status Reports.
- **Acceptance Process** - The objectives and tasks of each stage of a project provide the basic criteria by which to judge acceptance of a stage is to be granted. Please see the signoff process described at the top of this document.
- **Managing Project Scope** - In an effort to implement the project on time and within budget, both Tyler and Customer agree to limit the software and professional services to only those items identified in this Statement of Work. Expanded scope results in additional costs. The scope of EnerGov workflows to be configured is defined during the Assess and Define stages of the project and development specification of reports and integrations during the build specification stages.

PROJECT MANAGEMENT

Tyler performs ongoing project management services throughout the implementation in order to plan and monitor execution of the project, including the GIS implementation services being provided by Esri. Project Management includes the following tasks:

- Project plan management using ChangePoint PSA and Microsoft Project.
- Project document management using Microsoft SharePoint, to which the County and third party vendors acting on the County's behalf in the implementation will have access.
- Issue log management and escalation.
- Status reporting.

- Change order management
- Project workspace management
- Resource management
- Executive project oversight via Executive Director and Project Review Committee

By mutual agreement some project management tasks are shared between the Tyler Project team and the Customer Project Manager/Stakeholders.

PROJECT SCHEDULE

An estimated project schedule is set forth in the sample project plan provided at Exhibit G to the Contract. Upon execution of the Contract, the parties will collaborate to refine the project dates. Given the fact that project schedules are working documents that change over the course of the project, Tyler shall work closely with Customer to update, monitor, agree to, and communicate any required changes to the project schedule.

DEVELOPMENT TOOLS

With the exception of the development of new reports, the configuration tools are built-into the software and the Customer has full access. The Tyler implementation staff will use these same configuration tools to setup the Tyler system. Administrator training includes the use of the configuration tools.

Reports are developed in Crystal Reports. Any changes in the reports included with the software or the development of new reports does require a licensed copy of Crystal Reports. Tyler recommends this function be reserved for System Administrators or designated staff who have the skills and the necessary access to the EnerGov software.

The Tyler system includes a built-in Crystal Report reader so they, if authorized to view reports, do not require Crystal.

Documentation

Tyler-provided documentation

Over the course of the staged implementation lifecycle, the Tyler project team will provide stage-specific documentation in a range of formats (both editable and non-editable). Examples include:

- Data Collection docs (MS Excel) for configuration
- Data Mapping docs (MS Excel) for data conversion
- ERDs & Data Dictionaries for IT (PDF and CHM)
- Training Documentation Templates (MS Word and MS PowerPoint)
- Release Notes for Service Packs (PDF)
- Other documentation as required for the specifics of the project

Customer-provided documentation







A definitive list of Customer-provided documentation is not possible until all aspects of the implementation are determined, usually in the beginning stages of the project. Certainly, the Customer's assistance in completing the Tyler-provided forms and requests for configuration information is essential to a successful project.

Documentation originated by the Customer includes:

- Application Programming Interface documents (API's) for any third party software system to which the EnerGov software will interface and exchange data

- Import data documentation and in a format suitable for import into the EnerGov System (please see section titled Data Conversion)
- Workflow documentation on the Customer's current state / future state business processes
- Copies of pertinent ordinances or other controlling authorities
- Fee Schedules
- Copies of existing permits, licenses, other documents presented to the public and expected to be derived from the EnerGov Software

SOW ATTACHMENTS

<p>SOW Attachment A – (Sample) Work Acceptance Form This form provides the means for the Customer to accept work provided or provide reason for denial of a work.</p>	 SOW Attachment A - Work Acceptance For
<p>SOW Attachment B – (Sample) Change Order Form Any change in the project must have a completed and approved Change Order.</p>	 SOW Attachment B - Change Order Reque
<p>SOW Attachment E – Custom Programming Requests This document provides the means for defining a custom programming request for any modification to the Tyler source code.</p>	 SOW Attachment E - Custom Programming
<p>SOW Attachment F – Custom Report Programming Requests A specified number of hours may be allocated for Custom Report requirements if necessary. During the project these are defined and developed. Resources are allocated for this purpose. Additional custom reports and/or additional allocation of resources may be requested through the use of this form.</p>	 SOW Attachment F - Custom Report Requi
<p>SOW Attachment G – Data Conversion Template Database (DCT-DB) Data Model This document represents the data model or ERD for the respective sections of the Data Conversion Template Database.</p>	 SOW Attachment G - Data Conversion Terr
<p>SOW Attachment H – Data Conversion Template Database (DCT-DB) Guidelines This document serves as a guideline/overview of the Data Conversion Template Database and the processes it takes from initial delivery to the customer through final data import into the production system.</p>	 SOW Attachment H - Data Conversion Terr

Schedule 1
Esri Scope of Services

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Maui's Automated Planning and Permitting System (MAPPS)

Prepared for:

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Esri Proposal Number: P14-13418



Contents

1.0 Introduction	2
2.0 Solution Overview	2
3.0 Scope of Work	4
4.0 Schedule	18
5.0 Pricing	19
6.0 Company Overview	20
7.0 Project References	23
8.0 General Project Responsibilities and Assumptions	24
Appendix A Deliverable Review and Acceptance	27
Appendix B – Esri Resumes	28
Attachment A – Esri Master Services Agreement	43
Attachment B – Esri Software Pricing	44
Attachment C – Esri Hardware Recommendations	45



1.0 Introduction

Environmental Systems Research Institute, Inc. (Esri) is pleased to present **Tyler Technologies, Inc. (Tyler)** with this proposal for the centralization of its geospatial data by developing a County-wide enterprise GIS data repository to support County land management and other processes. This work is in support of the Maui's Automated Planning and Permitting System (MAPPS) project. Esri is serving its role as a subcontractor and will provide Tyler support in the following areas:

- **GIS Centralization Project Management**—includes overseeing all GIS centralization activities for the MAPPS project. This includes development of a project management plan and a detailed project schedule.
- **GIS Vision and Requirements Validation**—includes a GIS Vision and Requirements Validation Workshop led by Esri, resulting in a GIS vision and GIS Vision and Requirements Document and updated GIS Project Plan for the centralized County wide GIS.
- **System Architecture Design**—includes a System Architecture Design Workshop led by Esri, resulting in a System Architecture Design Document, which will enable Tyler and Maui County to plan and provision the GIS infrastructure.
- **GIS Data Migration**—includes a workshop to plan and identify the data that will need to be migrated to the centralized GIS database, development of a data migration matrix, mapping of existing data to the Local Government Information Model (LGIM), data migration scripts, and migrated data into the LGIM.
- **GIS Portal Development**—includes the deployment of ArcGIS Server and Portal for ArcGIS to host web services and web maps to share data internally with stakeholders, other departments, and with the public.
- **GIS Mobile Applications**—includes the deployment of Collector for ArcGIS for the deployment of field based GIS data capture.

A detailed description of the role and tasks Esri will perform, including the associated deliverables, are described in Section 3.0.

2.0 Solution Overview

For the MAPPS project, Esri will utilize the ArcGIS Local Government Solution which was designed to support cities and counties in managing their GIS data, and facilitate information sharing with the public. At the heart of the Local Government Solution is the Local Government Information Model (LGIM) which provides a framework for managing local government geospatial data. The model contains over 300 feature classes that support a variety government GIS functions including:

- Land Records
- Water Utilities
- Public Works
- Fire Service
- Emergency Management
- Law Enforcement
- Planning and Development
- Elections



Maui's Automated Planning and Permitting System (MAPPS) project

The LGIM model will be mapped to the County's existing datasets and extended where needed to meet the requirements for the existing applications as well as those to be deployed with MAPPS.

Once the GIS data is migrated into the LGIM, web services will be created in ArcGIS for Server and web maps and apps will be created in Portal for ArcGIS for information sharing to other departments, agencies and with the public.

Portal for ArcGIS allows clients to share maps, applications, and other geographic information with other people in the County. The content that is shared is delivered through a website, which will be customized to fit the County's look and feel.

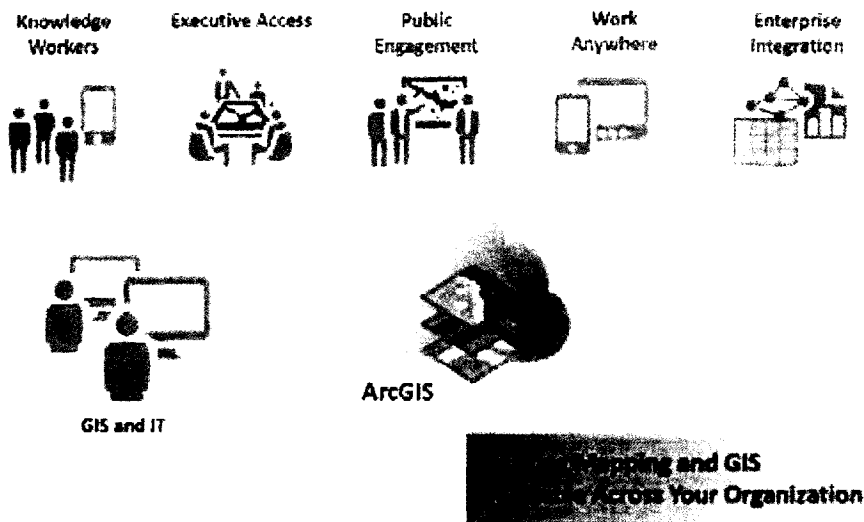


Figure 1 The ArcGIS Platform

Portal for ArcGIS will bring together all the geographic information in within the County of Maui to share it throughout the organization. Portal for ArcGIS will allow the county to:

- Create, save, and share web maps
- Create and host web mapping apps
- Search for GIS content within your organization
- Create groups for sharing GIS information with coworkers
- Share links to GIS applications
- Share map and layer packages for use in ArcGIS for Desktop

Portal for ArcGIS puts GIS in the hands of people who might not otherwise have any experience with it. For example, Portal for ArcGIS includes geographic viewers designed for those who are just beginning with GIS. Experienced GIS users can connect to Portal for ArcGIS from ArcGIS for Desktop, developer APIs, and other applications.

3.0 Scope of Work

Esri has worked with many local government customers to centralize their geodatabases to streamline their operations and day to day workflows. Additionally Esri has supported many organizations in their migration to the Local Government Information Model (LGIM) while also providing expert knowledge on best practices for modifying the model to meet clients' unique needs. As the creator of the LGIM, the County of Maui will benefit from Esri's expertise in this area as well as our knowledge associated with implementing the associated maps and apps.

This scope of work details the tasks Esri will perform including associated deliverables, responsibilities and key assumptions.

3.1 Key Assumptions

This proposal is based on the following key assumptions:

- A copy of the current geodatabase will be sent to Esri at least 10 days before the Data Mapping Workshop.
- Detailed process and workflow mapping for the workgroups who will be the users of the systems that currently consume GIS information, as well as the assessment information, will be made available to Esri 10 days prior to the workshop

3.2 Work Plan

Task 1 Project Initiation and Planning

During initial planning, the Esri Project Manager will develop a preliminary Project Management Plan based on the scope of the contracted services. The preliminary Project Management Plan will address the following:

- Project management approach
- Team members with roles and responsibilities
- Contracted scope of work
- Project schedule and milestones
- Deliverables
- Acceptance management
- Quality management
- Communication process
- Risk and issue management
- Progress reporting
- Change management

"Living components" of the Project Management Plan, including the project schedule, risk and issues logs, and change management logs, will be updated periodically and will form the basis for managing the project throughout its lifecycle.

Esri Deliverable

- Project Management Plan

Task 1.1 Kickoff Meeting

Esri project staff will travel to Maui County offices to lead a 1-day Project Kickoff Meeting for the GIS Centralization activities. The Esri Project Manager will coordinate with Tyler Project Manager to schedule the meeting and other logistics, including attendance of participants. Esri will prepare and submit a Kickoff Meeting Agenda to Tyler 5 business days prior to the start of the Project Kickoff Meeting. The meeting will cover the following topics:

- Project and solution overview
- Introduction of team members and identification of project roles
- Review of project activities to date
- Review and discussion of the preliminary Project Management Plan
- Finalization of project planning items

Esri will capture meeting results and will provide a meeting summary to Tyler. The meeting summary will include meeting attendance, discussion topics, items identified as revisions to project planning elements (e.g., schedule), action items, issues, and decisions. Mutually agreed to revisions to project planning elements will be incorporated into the Project Management Plan (Task 1.1).

Esri Deliverable

- Project Kickoff Meeting

Task 2 GIS Vision and Requirements Validation

Esri project staff will travel to Maui County offices in Wailuku, HI, for a period of 3 business days to conduct a GIS Vision and Requirements Validation Meeting. Esri will work with the Tyler and Maui County Project Manager to coordinate logistics and plan the agenda for the meetings.

The Requirements Validation Meetings will cover the following areas:

- Targeted technology demonstrations of software components as a means of introducing Maui County to the proposed solution for the project.
- Assessment of existing systems, application, data, and architecture
- Business requirements (functional and nonfunctional)
- Workflows/Processes (use cases)
- Interface requirements
- Data requirements (e.g., data access, maintenance, storage, distribution)
- Application deployment requirements
- Operational requirements (including system administration and maintenance)

- Security requirements

Upon completion of the Requirements Validation Meetings, Esri will develop a GIS Vision and Requirements Specification Document with the following information:

- High-level solution architecture and concept of operations—An overview diagram that illustrates the major functional components of centralized GIS, and how it relates to the rest of the permitting application, combined with a description of the function and behavior of each major component from a user perspective
- Domain model—A conceptual model of centralized GIS which describes the various entities involved in county wide GIS and their relationships.
- Business Scenarios—At a high-level, contains a set of activities that users of this solution would perform. The scenarios are developed to help analyze key use cases within the boundary of the requirement sets.
- High-level use cases—Contains a description of the interaction between the user and the GIS applications to outline the expected behavior and outcome of the custom functions to be developed
- Detailed list of requirements, including functional and nonfunctional requirements—This list of requirements defines what will be built/configured as part of centralized GIS and is the baseline for subsequent implementation activities. The list will include a brief description of the requirements and traceability to use cases, business scenarios, and requirements originator.

Upon completion of the Requirements Specification Document, Esri will work with Tyler, and the County to refine the scope for the remaining Tasks in the project.

Esri Deliverable

- Requirements Specification Document

Task 3 System Architecture Design

The System Architecture Design task includes Esri leading a System Architecture Design Workshop and providing a System Architecture Design Document and related support as described below

Task 3.1 System Architecture Design Workshop

An Esri senior technical consultant will travel to County's offices in Wailuku, HI for a period of three business days to conduct a System Architecture Design Workshop. The purpose of the workshop is to collect information about the County's GIS system vision and goals, user and system requirements, current and future business architecture, application architecture, data architecture, and technology architecture to support development of a centralized GIS architecture design recommendations.

To facilitate the workshop process, Esri will provide a System Architecture Design Workshop Agenda and Request for Information document ten business days prior to the start of the workshop. Esri will then follow-up with Tyler and the County via a two-hour web conference to review the agenda and discuss the Request for Information document completion process. The County is expected to complete and return feedback from the Request for Information document five business days prior to the workshop. Esri will use the information to prepare for the System Architecture Design Workshop.

During the workshop, Esri will review the county's responses to the System Architecture Design Request for Information document in the context of GIS technology and the proposed solution, and will establish the baseline architecture that will be needed to support the GIS implementation for this project. This workshop will include a discussion of system architecture design alternatives in the context of anticipated system needs and known infrastructure operational constraints. The objective is to review pros and cons of different alternatives and agree to the baseline architecture that will be implemented for this project. Esri envisions that the following topics will be covered during the workshop:

- Architecture Vision
- Business Drivers
- Sites
- User Workflows
- Data Architecture
- Application Architecture
- Technology Architecture
- Capacity Planning

In addition, specific objectives will be identified for the System Architecture Design Document including actions to address any questions or issues that are not resolved during the workshops.

Esri Deliverable:

- Three-day System Architecture Design Workshop

Task 3.2 System Architecture Design Document

Upon completion of the System Architecture Design Workshop, Esri will document the system architecture based on the results of the workshop. This will include the following:

- Esri Software list and supporting software
- Esri Software licensing recommendations
- Hardware supporting Esri-based applications and supporting software
- Logical and Physical architecture diagram showing the location and interaction of GIS system hardware and software components supporting Esri-based applications
- System sizing recommendations, including capacity estimates for:
 - CPU
 - Memory
 - Network
 - Storage
- Integration points with non-Esri-based systems

The system architecture design will take into account the current hardware and architecture standards and practices at the County of Maui and will consider the use of existing hardware components if it is feasible

to accommodate the performance and environment requirements with those components. The draft System Architecture Design Document will be limited to 60 pages in length.

Esri will prepare a draft System Architecture Design Document and submit it to Tyler for review and comment. Esri will conduct a 2-hour web cast to review the document with Tyler and the County of Maui. Tyler will provide the document to the county, which will then have ten business days to review the draft and provide Esri with consolidated, written comments that have been reviewed and approved by the County Project Manager. Upon receipt of the County's comments, Esri will incorporate changes, as mutually agreed, and deliver a final version.

Esri Deliverables:

- System Architecture Design Document.

Task 4 GIS Data Migration

The goal of this task is to migrate the County's current GIS data to a LGIM geodatabase. This migration will be accomplished by conducting a data mapping workshop to map feature classes and attributes in the current geodatabase to the LGIM, tailoring the model for attributes and feature classes not in the main LGIM but needed by the County; creating migration scripts, running the scripts to migrate the data, assessing the quality of conversion; and finally delivering the migration scripts and source code.

Task 4.1 Data Mapping Workshop

Esri will travel to the County's offices in Wailuku, HI to conduct a five day workshop with the County's GIS stakeholders to map feature classes and attribute data to the LGIM and document the mapping with a mapping matrix in an Excel spreadsheet format. The County will provide Esri with a copy of their current GIS data stores prior to the start of the project. Esri will review it prior to conducting the workshop.



The Mapping Matrix will map no more than 200 layers to the LGIM database.

During the workshop, Esri will review the feature classes and attributes that are related to the LGIM and assess and document the data needed to drive the functions of the following ArcGIS applications and maps for:

- Local government basemaps
- Infrastructure maps and applications
- Public safety maps and applications
- Planning and development maps and applications
- Facilities maps and applications
- Address maintenance maps and applications
- Public works maps and applications

Esri will also review and document the data requirements of key applications and internal databases that will consume GIS data or interact with GIS data from the LGIM schema. As part of this review, detailed process and workflow mapping of the following systems will be analyzed. The following are the anticipated applications at the County that will consume GIS data from the LGIM schema:

- Permitting, Land Development, Inspection, and Enforcement System
- Public Portal
- Electronic Plan Review
- ArcGIS Server and Portal for ArcGIS
- GIS Viewers

Esri Deliverable:

- Five-day on-site Data Mapping Workshop

Task 4.1.1 Data Mapping Design

Based upon the results of the Data Mapping Workshop, Esri will prepare a Data Mapping Matrix which will include the following:

- Feature classes and attributes in the current geodatabase mapped to the LGIM
- Document any attribute data mapped for another database to the LGIM
- Additional feature classes and attributes added to the LGIM based upon the workshop findings
- Documented changes to LGIM domains
- Documented changes to:
 - Subtypes
 - Data types
 - Relationship classes

Esri will prepare a Draft Data Mapping Matrix and submit it to the County for review and comment. Following receipt, the County will have five business days to review the draft and provide Esri with consolidated, written comments that have been reviewed and approved by the County project manager.

Upon receipt of the County comments, Esri will conduct a two-hour webcast to review the draft Data Mapping Matrix, including the County's comments. Esri will incorporate changes, as mutually agreed, and deliver a final version of the Data Mapping Matrix. The County is responsible for providing Esri with written acceptance of the final Data Mapping Matrix within two business days of receipt.

Esri Deliverable:

- Data Mapping Matrix document.

Task 4.2 Migrate Data to the LGIM Schema**Task 4.2.1 Test Environment Installation/Configuration**

Esri will establish a test environment at Esri offices in Redlands, California and remotely assist the County in setting up a development/test environment at the County's offices in Wailuku, HI. These test environments will support the creation and testing of extraction, transformation, and loading (ETL) scripts, data migration scripts if applicable, data reviewer scripts, and any additional quality assurance/quality check (QA/QC) scripts (if applicable). The purpose of the test environment at Esri is to provide a controlled environment that mimics the County's test and production environment as closely as possible to test the functionality of the scripts before testing them in the County's test environment.

Task 4.2.2 ETL Development

Based on the accepted Data Mapping Matrix, Esri will create the data migration ETL scripts. Esri will then run the scripts at first in Esri's test environment and then in the County's development/test environment to create the County's LGIM schema and to load data to it from the current GIS and any other County databases that were identified as a source of attribute data in the accepted Data Mapping Matrix.

Esri will conduct webcast Development Review Meetings during this task to elicit comments and inform the County on the status of the task. The frequency of the webcast Review Meetings will be mutually agreed upon by Esri and the County.

Esri Deliverable:

- ETL Script

Task 4.3 Assess Conversion Quality and Generate Reports

Esri will assess the quality and accuracy of the conversion, and generate reports on resulting inventory data gaps, e.g. empty LGIM feature classes/fields, native County data migrated "as-is", and other discrepancies in the LGIM version of the database resulting from the migration.

Esri has implemented numerous LGIM conversions and has found that the best results occur when the following tasks are done as part of the LGIM migration project:

- Test Plan
- Deployment Plan
- Internal Acceptance Testing (IAT)

- User Acceptance Testing (UAT)
- Implementation

Task 4.3.1 Test Plan

Esri will initiate development of the Test Plan including Test Scripts upon completion of the deliverables specified in Task 4.2.1.

Esri will prepare a Test Plan that will identify procedures, types of testing, and test strategy to be used for acceptance of the migration of the County's geodatabase to its configured LGIM schema during the IAT and UAT tasks described below. The Test Plan will include Test Scripts and identify the criteria that the County will use to determine acceptance of the configured LGIM schema. The Test Plan will include the following content:

- Schedule of testing activities
- The types of test or testing cycles that will be completed prior to and during UAT, and their location
- Testing logistics for Esri internal testing activities and those conducted during UAT
- Specifications for the testing environment(s) that will be used
- Roles and responsibilities during testing
- Test reporting
- User acceptance criteria
- Corrective action procedures

The Test Scripts within the Test Plan will include:

- **List of Test Scripts**—This is a listing of the tests that will be executed to verify that the migrated LGIM meets the County's acceptance criteria
- **Content of each test script**—Instructions of how to conduct the test, including information such as specific sequence of steps, environment, variables, and pre/post conditions

Esri will deliver a draft Test Plan to the County. Following receipt, the County will have three business days to review the draft and provide Esri with consolidated, written comments that have been reviewed and approved by the County's project manager. Upon receipt of the County's comments, Esri will conduct a two-hour webcast to review the draft Test Plan, including the County's comments. Esri will incorporate changes, as mutually agreed, and deliver a final version. The County is responsible for providing Esri with written acceptance of the final Test Plan within two business days of receipt.

Note: Written acceptance of the Test Plan by the County is a pre-condition for Esri to proceed with IAT and UAT.

Esri Deliverables:

- Test Plan document

Task 4.3.2 Internal Acceptance Testing (IAT)

IAT can be initiated once the ETL scripts are functionally complete and meets IAT test entry criteria as specified in the accepted Test Plan. The objective of IAT is to confirm that the LGIM migration complies with the accepted Test Plan prior to delivering the application to the County for UAT. IAT will implement the same procedures that the County will use during UAT in an environment that replicates the County's environment as closely as possible.

Esri will conduct IAT at Esri offices in Redlands, California. The test scripts contained in the accepted Test Plan will form the basis of whether the migrated LGIM passes the IAT process.

During IAT, Esri's test team will log defects in Esri's defect tracking system. Esri will review defect reports and identify those that require defect fixes for resolution. Where appropriate, defect fixes will be made and regression tested during IAT.

At the conclusion of IAT, Esri will compile an IAT test report documenting the results of the IAT. The IAT test results report includes:

- Summary of the testing approach
- Recommendation on readiness to proceed with UAT
- Test results, including pass/fail decision for Test Scripts, and list of defects

Esri will conduct a two hour IAT review meeting, via webcast, with the County to review the IAT test results report, including the readiness of the ETL migration scripts for UAT in the County's test/quality assurance environment.

Once the ETL migration scripts are ready for UAT, Esri will create and deliver a release package to the County for deployment in the County's Test/Quality Assurance environment for UAT.

The release package will include:

- ETL Software (Data Interoperability extension for ArcGIS for Desktop)
- ETL Scripts
- QA/QC software (Data Reviewer extension for ArcGIS for Desktop)
- QA/QC scripts
- Release notes
- Installation instructions

IAT will be deemed complete when all IAT test scripts have been executed and defect thresholds in the acceptance criteria as defined in the accepted Test Plan have not been exceeded.

Esri Deliverables:

- IAT test results report.
- Data Reviewer extension for ArcGIS for Desktop
- Data Interoperability extension for ArcGIS for Desktop
- Release package that will be used for UAT

Task 4.4 Deliver Data, Extracting, Loading, and Transforming (ETL) Scripts and Source Code

Esri will deliver and install on the County's system the ETL tools and source code used in the migration, and run the tools for a data migration. This will be done in the Test/Quality Assurance (QA) environment for the UAT and in production for implementation once UAT has been accepted. Upon UAT Acceptance Esri will deliver the data.

Task 4.4.1 User Acceptance Testing (UAT)

The objective of UAT is for the County to test the LGIM migration and ETL scripts to confirm that it meets the acceptance criteria as defined in the accepted Test Plan.

To initiate UAT, Esri will travel to the County's office in Wailuku, HI for a period of seven consecutive business days. Esri will install the test geodatabase, ETL software (Data Interoperability extension for ArcGIS for Desktop), QA/QC software (Data Reviewer extension for ArcGIS for Desktop), ETL Scripts, QA/QC scripts, and loading the appropriate data in the County's Test/QA environment to prepare the environment for UAT.

Immediately following the UAT environment deployment, Esri will provide the County's test team with a one-day training class on how to test the migration based on the accepted Test Plan.

Following the UAT test team training class, the County will test the LGIM migration to verify that it functions in accordance with the accepted Test Plan. The County will record discrepancies, if any, using the defect reporting mechanism as specified in the accepted Test Plan. UAT will be conducted over a period of seven business days. Esri will provide two days of on-site support and five days remote support during UAT.

During UAT, the following procedures will be used to review and validate any reported discrepancies:

1. When the test team members for the County finds a discrepancy that they believe is a migration defect, they will verify with another team member before reporting the issue to Esri. The County will document the steps needed to reproduce the problem using an agreed to defect reporting template. Esri will then work to validate the discrepancy. If

Esri can validate the discrepancy, it will be recorded as a defect and classified as one of four defect severity levels (reference the descriptions in Table 1 below).

2. If Esri cannot validate the discrepancy, the County testing team will either provide more information or demonstrate how and where the discrepancy occurs. Based on this information, Esri will work to further identify the source of the discrepancy. Esri may determine that the discrepancy is not an ETL script problem but instead a problem with data, the network, or a misunderstanding about how the data will be converted.
3. If Esri cannot replicate a reported discrepancy, if the County test team cannot demonstrate it, or if it is determined by Esri that the discrepancy has another cause not related to Esri-supplied software, then Esri will notify the County's test team that the problem is not an ETL script defect and identify the cause of the defect. If appropriate, Esri will recommend an action to take, for example, to reload certain data into the geodatabase.

The County will send daily defect reports to Esri based on a mutually agreed-on format. Esri will use its internal defect-tracking application to capture and prioritize defects and modifications.

During UAT, the County's testing team and Esri will hold daily defect review meetings or conference calls to review the open defects and associated severity. At the conclusion of UAT, Esri will create a software test report documenting the result of UAT. The Esri project manager will lead a conference call with the County to discuss the report, including any outstanding issues/defect fixes and a plan to resolve them.

Table 1: Defect Descriptions

Severity	Description
1 Critical	A Severity 1 defect means that the process does not work as defined in the accepted design specification and the process is stopped with no workaround. The defect(s) may affect multiple users or frequently used functions.
2 High	A Severity 2 defect is less severe than a Severity 1 defect but is the result of a significant problem(s). The defect severely impairs the process and reduces user productivity. No workaround has been identified by Esri. It could be a major problem that affects a limited number of users or affects functionality not needed on a daily basis.
3 Medium	A Severity 3 defect means that the process has been impaired but has an Esri-recommended workaround. The user is able to function near the expected productivity level. Internal geodatabase structures are accurate and maintain their integrity.
4 Low	A Severity 4 defect does not have a significant impact on the process and reflects a minor problem(s).

UAT will be considered complete, and the County will be responsible for providing Esri with written acceptance of the LGIM migration within three business days provided the following condition is met:

- UAT test scripts, as defined in the accepted Test Plan, for the release have been executed with no remaining Severity 1 or Severity 2 defects.

Esri Deliverables:

- Provide one day of on-site UAT installation and preparation support.
- Provide one day of on-site test team training.
- Provide five days of on-site support during UAT.
- Provide up to two revised releases to the ETL migration scripts.
- Provide test results report at the conclusion of UAT.

Task 4.4.2 Production Environment Installation

The deployment of the final data delivery into the County's production environment for operational use can be initiated after UAT is complete and the County has provided Esri with written acceptance.

Esri will travel to the County's offices in Wailuku, HI for a period of three consecutive business days to install and configure the following:

- ETL Software
- ETL Scripts
- QA/QC software
- QA/QC scripts

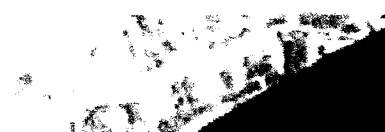
The County is responsible for providing Esri with written acceptance of the delivered LGIM in the production environment within two business days of completing the deployment.

Esri Deliverables:

- Install the ETL software.
- Configure the ETL migration scripts.
- Run ETL scripts.
- QA/QC software, Data Reviewer extension for ArcGIS for Desktop.
- Configure QA/QC scripts.
- Run QA/QC scripts.
- Final converted data

Task 5 GIS Portal Configuration and Deployment

Based on the accepted requirements specification document from Task 2, Esri will assist Tyler in supporting their client, Maui County with an onsite install and configuration of Portal for ArcGIS. The onsite configuration and deployment will include:



- A standard organizational assessment
- Installation and configuration of the Portal for ArcGIS Software
- Configuring supported user authentication systems to work with Portal for ArcGIS (standard LDAP, AD, IWA, or PKI)
- Configuring organizational settings including color scheme, logos, and graphics
- Configuring one or more existing ArcGIS Server sites with Portal for ArcGIS
- Configuring one existing ArcGIS Server site as the hosting server for Portal for ArcGIS
- Identifying and loading a sample of representative content
- Creating a up to 5 representative web maps
- Deploying up to 5 local government apps such as
 - Notifying Property Owners
 - Parcel Finder
 - Public Comment
 - Public Information Map
 - Executive Dashboard
- Best practices knowledge transfer for authoring and sharing content
- Additional feature overviews such as publishing content, accessing content with mobile devices, and using Esri Maps for Office
- Additional knowledge transfer topics on:
 - Using the management console and administrative tools
 - Operations and maintenance
 - Data management
 - Securing content
 - Creating and configuring existing web app templates
 - Cartographic considerations

A pre-visit questionnaire will be provided prior to the on-site engagement to collect information on the current implementation. The Esri technical consultant will review the questionnaire results as the basis of developing an understanding of key requirements.

Esri anticipates that 1 consultant will support this activity for up to 10 consecutive business days on-site at Maui County offices in Wailuku, HI. The Esri consultant will work with direction from Tyler and the County's technical staff and management.

Esri Deliverables:

- Install and Configure Portal for ArcGIS
- Install and Configure up to 5 Local Government Template Apps

Task 6 Mobile Inspections

Based on the accepted requirements specification document from Task 2, Esri will assist Tyler in supporting their client, Maui County with an onsite Mobile Inspections workshop where Collector for ArcGIS will be configured to support a GIS field survey. Collector for ArcGIS enabled field users to edit and collect information in a disconnected mode and synchronize them back to Portal for ArcGIS and ArcGIS Server. The onsite configuration and deployment will include:

- Configuration of up to 5 feature classes to be utilizing for field data collection
- Publishing a feature service and registering it with Portal for ArcGIS
- Sync enabling the service within Portal for ArcGIS
- Creation of a web map to use offline in Collector for ArcGIS
- Configuration of a basemap to use for field data collection
- Exercise in utilizing Collector for ArcGIS on either iOS or Android devices

Esri anticipates that 1 consultant will support this activity for up to 5 consecutive business days on-site at Maui County offices in Wailuku, HI. The Esri consultant will work with direction from Tyler and the County's technical staff and management.

Esri Deliverables:

- Configure Collector for ArcGIS

Task 7 Training on ArcGIS for Local Government

Upon the acceptance of the migrated County Data into the LGIM in Task 4.4.2, and Task 5, an Esri Consultant will spend up to 4 days Training up to 15 students on how to work with and manage the data stored in the LGIM. Topics for this workshop will include:

- Overview of LGIM data model and underlying components
 - Land Records
 - Water Utilities
 - Public Works
 - Fire Service
 - Emergency Management
 - Law Enforcement
 - Planning and Development
 - Elections
- Editing LGIM data



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System (MAPPS) project

- Working with Local Government COTS Applications

The county will need to provide a training room with up to 13 workstations configured with ArcGIS Desktop 10.2.2.

Esri anticipates that a consultant will support this activity for up to 4 consecutive business days on-site at Maui County offices in Wailuku, HI. The Esri consultant will work with direction from Tyler and the County's technical staff and management.

Esri Deliverable:

- Training on working with ArcGIS for Local Government

4.0 Schedule

The project schedule will be mutually agreed upon between Tyler and Esri within 10 days after contract award.

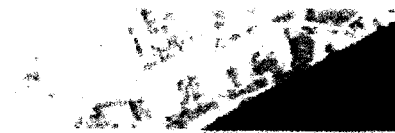
5.0 Pricing

5.1 Esri Pricing

Esri is pleased to submit the following price proposal to Tyler to provide the consulting services as outlined in our Scope of Work above. The price for this proposed work has been estimated based upon an anticipated award of a firm-fixed-price (FFP) task order subject to the terms and conditions of the Esri Master Services Agreement (Attachment A). The required staff, computer and travel expenses for this statement of work have been estimated based on prior experience with work of a similar nature. Esri proposes a firm-fixed-price of **\$457,545** (U.S. Dollars) to complete the project as defined in this proposal.

Description of Service	Fixed Price
Task 1 GIS Centralization Project Management	\$21,240
Task 2 GIS Vision and Requirements Validation	\$48,380
Task 3 System Architecture Design	\$65,785
Task 4 GIS Data Migration	\$188,800
Task 5 GIS Portal Configuration and Deployment	\$58,115
Task 6 Mobile Inspections	\$37,760
Task 7 Training on ArcGIS for Local Government	\$37,465
TOTAL	\$457,545

The proposed price is exclusive of applicable state and local taxes for which Tyler shall remain responsible. Tyler will be invoiced on a monthly basis, according to the percentage of work completed during the previous thirty (30) day period. Invoices are to be paid within thirty (30) days of receipt of invoice. This proposal is valid for ninety (90) days from the submittal date above.



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6.0 Company Overview

Esri develops and supports GIS technology at all levels, from the desktop to the enterprise. We provide software, educational services, user support, and professional consulting services ranging from needs assessments to system design and implementation services. Today, more than a million people around the world use Esri technology to improve the way their organizations conduct business.

What We Provide

Esri is the only GIS vendor that offers a complete geospatial solution—ArcGIS. The ArcGIS platform provides users with a complete system for authoring, serving, and consuming geographic information. ArcGIS is an integrated collection of GIS software products for building and deploying a complete GIS wherever it is needed: on desktops, on servers, on mobile devices and smartphones, and over the web.

We build open and interoperable software products. We advocate open access to geographic data and software functionality through widely adopted, practical standards. As a result, ArcGIS supports and integrates with virtually all commonly accepted IT standards. For you this means compatibility and interoperability support for major enterprise systems such as enterprise resource planning, customer resource management, enterprise application integration, work management systems, and others.

We also offer sophisticated training, user support, and professional services to help you maximize your investment in ArcGIS. We provide training solutions for all budgets and schedules, and Esri Support Services is available to answer any questions you have while using Esri software. Our professional services team can guide you through the entire GIS implementation process, from the initial needs assessment to post-deployment knowledge transfer.

History

Esri was founded in 1969 as a privately held consulting firm specializing in land-use analysis projects. Our early mission was to organize and analyze geographic information, helping land planners and land resource managers make well-informed environmental decisions. These first land studies resulted in maps with marked geographies and clearly delineated opportunities for development. From these projects emerged the concepts for processes and tools we would later apply to an automated environment.

During the 1980s, Esri focused on developing and applying a core set of application tools within a computer environment. This eventually became known as GIS technology, and in 1982 we launched the first commercially available GIS software—ARC/INFO. In the years that followed, Esri evolved from a small consulting firm to the largest GIS research and development organization in the world.

In July 2012, we released ArcGIS 10.1, the newest generation of our integrated software products designed to build and support a complete GIS. You can deploy ArcGIS throughout the

enterprise to deliver valuable and easy-to-use maps, data, and analytical tools to both GIS professionals and non-GIS users.

Capability

Esri is a financially stable, privately owned corporation with a policy of zero debt. Private ownership means no stockholders forcing short-term decisions at the expense of long-term objectives. All our revenue is directly related to GIS, and we anticipate consistent annual revenue growth over the next three years.

Esri has an exceptionally high commitment to research and development for a GIS company. Generally, our R&D budget equates to 20 percent of our annual revenue leading to new and powerful advances in the functionality and performance of our software. This commitment continues to reshape the GIS industry as our products become the *de facto* standard in the GIS community. As a result of our vigorous software development, you can deploy our products on standalone desktops and mobile devices, across enterprise-wide networks, and over the Internet.

Headquartered in Redlands, California, Esri maintains offices throughout the United States. The Esri Partner Network includes more than 1,600 partners who provide software and services based on Esri technology. We have more than 80 international distributors supporting Esri users in more than 150 countries.

Esri also fosters corporate alliances with more than 65 technology leaders who specialize in areas complementary to our ArcGIS platform. Alliances with these companies ensure product compatibility and allow us to jointly explore new technologies. These corporate alliances include data, software, and other technology companies such as Amazon Web Services, AT&T, Citrix, IBM, Microsoft, NAVTEQ, SAP, SAS, Tele Atlas, and Trimble.

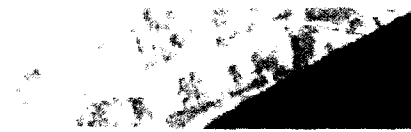
Why Choose GIS from Esri?

Esri software is used by more than 350,000 organizations worldwide including:

- Most U.S. federal and national mapping agencies
- All 50 U.S. state health departments
- Each of the 200 largest U.S. cities
- More than 24,000 state and local governments worldwide
- More than two-thirds of Fortune 500 companies
- 45 of the top 50 petroleum companies
- More than 7,000 colleges and universities
- Many others in dozens of industries

The diversity of our customer base reflects three important facts:

- **Only Esri offers a complete geospatial solution**—The success of our company is a direct result of the options we provide our customers in deploying GIS, from single desktop licenses to enterprise-wide solutions complete with web services. Our software allows you to access information through a full spectrum of client



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applications, manage and consume information from nearly any standards-based source, and distribute information to virtually any other system or device through nearly any type of connection.

- **Esri supports open IT standards**—The ArcGIS platform conforms to open standards and enterprise IT frameworks that allow users to incorporate GIS into any application on a variety of computing and mobile devices. We support standard commercial database systems, spatial data formats, deployment strategies, developer environments, and web service standards published by organizations like OGC.
- **Esri is dedicated to the user community**—By listening closely to the people who use our software every day, we routinely incorporate user feedback and recommendations in our product releases. We solicit feedback through ArcGIS Ideas (ideas.arcgis.com), user groups and conferences, traditional technical support channels, beta testing and holistic testing programs, online forums, and friendly relationships between our sales staff and our users.

As part of this dedication to our users, Esri provides a comprehensive suite of user support options including telephone support, online resource centers, moderated discussion forums, and a variety of regional and industry user groups. Esri hosts the largest GIS event in the world, publishes the two largest circulation periodicals in the industry, and operates the leading GIS book publisher. These options help our users develop GIS best practices, resolve problematic workflows, and perform GIS tasks with greater efficiency.

Furthermore, Esri delivers the most sought-after training solutions in the industry. Each year, more than 25,000 GIS professionals and students in the U.S. are trained by Esri or Esri-authorized instructors. In addition, more than 11,000 individuals from more than 150 countries enroll in Esri web-based training courses every year. By promoting user education, Esri better prepares our users to solve real-world problems with GIS.

7.0 Project References

Reference Requirements	Customer Reference No. 1
Organization Name and Address	City of Lubbock Information Technology Division Department of GIS and Data Services 1625 14th Street, Room 107 Lubbock, TX 79401
Organization Representative Contact Information <ul style="list-style-type: none"> Contact Name Contact Title Contact Phone Contact Email 	Mr. Sally Abbe Director of GIS and Data Services 806-775-2106 sabbe@mail.ci.lubbock.tx.us OR sabbe.g@citylubbock.org
Summary of Organization's Primary Business Function	The City of Lubbock is a local municipal government that provides services to the citizens of Lubbock, Texas. The Enterprise GIS vision is to expand the use of GIS through the implementation of ArcGIS and other systems integrations such as a permit and license system and other third party solutions that benefit user departments. The City intends to have an enterprise GIS System that provides the most up-to-date and accurate information to the City Departments and the Citizens of Lubbock.
Jurisdiction Size of Organization	240,000 population
Summary Description of Organization's Implementation	Esri staff supported the City to create a web mapping application based on the Esri JavaScript API. This application utilizes Esri ArcGIS Server rest services and provides the public and internal users access to a wealth of GIS data including parcels, zoning, utility networks, floodzones and more. The data is searchable and users can also create detailed prints of the information. This application is also supported on all devices.
Summary Description of Proposed Staff Role For Implementation	Esri staff supported the City with knowledge transfer in the design, coding, and implementation of the application. Along with setting up the ArcGIS Server environment and web services that power the application. Already in Esri format, but migrated them to LGIM schema. To clarify: They have not fully implemented as of yet - they may be helpful, but still working on the implementation. Can mention that they are soon to launch.
Reference Requirements	Customer Reference No. 2
Organization Name and Address	City of San Clemente Engineering Division 910 Calle Negocio, Suite 100 San Clemente, CA 92376
Organization Representative Contact Information <ul style="list-style-type: none"> Contact Name Contact Title Contact Phone Contact Email 	Mr. Elmer Catapang Senior Engineering Technician 949-361-6112 catapange@san-clemente.org
Summary of Organization's Primary Business Function	Public Works - Utilities - Managing city's water, sewer stormwater infrastructure
Jurisdiction Size of Organization	65,040 population - 130 employees
Summary Description of Organization's Implementation	Rent-A-Tech services including support of ArcGIS Desktop for data maintenance, and ArcGIS Server. Currently working on an integration with Lucity CMMS.

8.0 General Project Responsibilities and Assumptions

Tyler Responsibilities

- Designate a project team with defined team leads, including a project manager (PM), and key project stakeholders and share that project organization with Esri. The team leads will possess the appropriate knowledge of Client operations and technical requirements
- Coordinate and ensure the participation of appropriate client staff in all project-related activities. Activities include, but are not limited to:
 - Meetings
 - Webcasts
 - Training
 - Testing
 - Installation
- Tyler's Project Manager will be the main technical point of contact for the Esri's Project Manager.
- Provide access to the following items during the project, as needed:
 - Background materials
 - Source documents
 - Data
 - Meeting facilities
 - Hardware and software environments (directly, or via VPN)
- Review and provide acceptance to all project deliverables according to the review and acceptance process outlined in Appendix A of this proposal
- Procure and provide all necessary HW, Esri COTS SW, and 3rd Party SW prior to commencement of the project, if not provided under this contract
- Install and configure Client-provided hardware and software environments according to specifications provided by Esri
- Provide access to/facilitate interactions between Esri and any Client customers and/or stakeholders
- Ensure that all Client Responsibilities outlined in the proposal are met
- Coordinate and lead all meetings with client
- Be responsible for the operations and maintenance of the entire system, unless otherwise stated in the scope of work
- Provide overall project and contract management

Project Assumptions

General

- This proposal is based on the requirements outlined in the Client RFP, and detailed scope of work
- Unless otherwise stated in the scope of work, work will be performed remotely from an Esri office
- Remote work will be provided via telephone, email, and/or webcast

- Remote work will be provided during normal Esri business hours, Monday-Friday, 8:00 a.m. to 5:00p.m. PST, unless otherwise stated in the scope of work.
- Onsite work will take place at Wailuku, HI, unless otherwise stated in the scope of work
- Days at client site are not to exceed 8 hours of work per day
- Meetings, workshops and work performed at client's site will be provided over consecutive business days unless otherwise stated in the scope of work
- References to days in the scope of work refer to consecutive business days
- Client will provide Esri with a minimum of two-weeks advanced notice before on-site travel is scheduled
- Esri will be provided with internet and VPN access to all project-related client environments
- Esri will be provided with system administration rights to client environments, as required
- Client end users are already knowledgeable in the use of ArcGIS software, or will take the training classes recommended by Esri, if included in this proposal
- The project schedule will identify task and deliverable dependencies. Written acceptance of dependent deliverables is required before Esri can proceed with initiating a new project task or deliverable.

HW/SW

- All work will be performed on the latest version of Esri products, unless otherwise specified in the scope of work
- Bugs found in Esri COTS software will be handled by Client under the terms of your software licenses
- Documentation for ArcGIS COTS is available in ArcGIS help online, and is not included in any project-specific documentation; nor is documentation for 3rd party SW or HW
- Unless otherwise specified in the price section, this proposal does not include the costs of any Esri COTS SW, 3rd Party SW, or Hardware

Data

- Data to be migrated will be provided by the client in an Esri-compatible or Esri-convertible format
- Unless otherwise specified in this proposal, Esri will not be responsible for cleansing data
- Existing errors in the source data will not be corrected by Esri as part of any data upload

Testing

- Bugs found in Esri COTS software will be handled by Client under the terms of your software licenses
- All testing related details including Test Scope, Types of Testing, Test Entry/Exit Criteria, Defect levels, Defect resolution process, and Acceptance process will be defined in a Test Plan.
- Unless otherwise requested, Esri will use Microsoft Team Foundation Server (TFS) to track and manage defects. Esri will provide Client with a customer-facing portal to access TFS to submit defects during UAT (User Acceptance Testing)
- Unless otherwise specified, the client is responsible for acquiring and setting up all hardware and 3rd party software related to setting up the client test, staging and production environment prior to the commencement of testing and deployment activities.
- Unless otherwise determined, Production deployment will commence only after UAT has been concluded and system acceptance has been provided by the client on the Testing/Staging environment.



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System (MAPPS) project

Warranty

- Warranty applies to deliverables created specifically for the project. It does not apply to the COTS software used in the GIS.
- Warranty support as detailed in Esri's attached Master Services Agreement (E115) will be used to correct defects with the GIS components that may arise following deployment. This support is not intended to be used to develop new functionality or for resolving operator errors attributable to lack of training or understanding of the system.

Appendix A Deliverable Review and Acceptance

Customer to provide written acceptance for each deliverable item.

Esri will provide a sample acceptance letter for review during the Kick-off meeting.

Deliverable Type	Acceptance Process
Document	<ul style="list-style-type: none"> • Esri and customer agree on template and table of contents. • Esri submits draft document to customer and reviews in conference call or meeting. • Customer compiles comments from reviewers, de-conflicts comments, removes comments that are out of scope, and submits a single set of comments to Esri. • Esri and customer discuss comments and agree on changes that will be made. • Esri submits final document. • Customer review period is 5 days • Esri rework period is 5 days
Configured or Custom Applications	<ul style="list-style-type: none"> • Completion of UAT as described in Scope of Work and/or Test Plan and Test Scripts
Data	<ul style="list-style-type: none"> • Completion of UAT as described in Scope of Work and/or Test Plan and Test Scripts
Custom training	<ul style="list-style-type: none"> • Delivery of training based on Training Plan and Training Materials
Support	<ul style="list-style-type: none"> • Esri provides the agreed upon number of hours of support

Appendix B – Esri Resumes

Mark Williams



Senior Consultant/Project Manager

Mr. Williams joined Esri in 1999 as a Consultant/Project Manager and received his master's degree in geography from the State University of New York, Buffalo, with a concentration in GIS. His expertise area includes implementation of enterprise GIS software solutions in the land and natural resources management.

Accomplishments

As a project manager and consultant at Esri, Mr. Williams is responsible for the overall management of GIS design and application development projects. Mr. Williams develops and implements project work plans and lead Esri technical staff during requirements, analysis, design, build, and rollout. He also maintains client relations, manages project budgets, and meets schedules for project deliverables. He also conducts data modeling and best practices workshops and develops best practice guidance documents.

Since September of 2013, Mr. Williams has been the Project Manager for the Cook County, IL Cadastral GIS Upgrade Project. Mr. Williams is overseeing three subcontractors in the upgrade and replacement of the County's existing cadastral and tax mapping application. This work includes the migration of over 1.8 million parcels into the parcel fabric and the development of data entry forms for managing Division information.

Since February 2013, Mr. Williams has been the Technical Advisor under the Esri Enterprise Advantage Program for The State of Alaska, Department of Nature Resources (AK DNR), which manages all state-owned land, water and natural resources, except for fish and game, on behalf of the people of Alaska. As technical advisor, Mr. Williams is supporting the AK DNR with developing a strategic plan for the ArcGIS 10.1 implementation across the agency.

Since October 2012, Mr. Williams has been the Technical Advisor under the Esri Enterprise Advantage Program for The Bureau of Land Management, Geospatial Services Strategic Plan. As technical advisor, Mr. Williams is supporting the BLM with geoenabling enterprise applications, performing a system assessment of the National Operations Center, and supporting training of BLM GIS staff.

In 2012 and 2013, Mr. Williams was the lead consultant working with the NetHope eGIS Working Group supporting NetHope members: Conservation International, Plan International, Save the Children and The Nature

Highlights

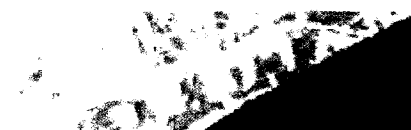
- Developed a Central Title System for a large forestry company to track and manage surface and subsurface ownership rights and interests on over 5 million acres of land.
- Lead a requirements analysis and supported a vendor selection for Potlatch's Forest and Land Management System Project.
- Developed a Situational Awareness Viewer for the FDA which enabled the monitoring of adverse events.
- Technical Advisor for The Nature Conservancy supporting their GIS Strategic Planning and implementation efforts around the globe.

GIS Experience

Thirteen years with Esri. 15 years total with expertise in GIS strategic planning, requirements analysis and design, land records, forestry and land management.

Education

- MA (Geographic Information Systems) State University of New York, Buffalo, 2004
- BA (Physical Geography) State University of New York, Buffalo, 1998
- BS (Environmental Studies) State University of New York, Buffalo, 1997



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Planning and Permitting
System (MAPPS) project

Conservancy supporting them as they plan out their enterprise GIS implementations and incorporate ArcGIS Online for Organizations into their data dissemination workflows.

In 2011 and 2012, Mr. Williams was the Technical Advisor under the Esri Enterprise Advantage Program for The Bureau of Land Management, Oregon State office, which oversees all BLM activities in the States of Oregon and Washington. As technical advisor, Mr. Williams supported the BLM with their ArcGIS 10 migration as well as system assessment and performance tuning to support workers in the state and field office locations.

In 2011 and 2012, Mr. Williams was the lead consultant on an evaluation of the Cook County, IL, Parcel maintenance systems developing a set of recommendations and implementation plan to modernize parcel maintenance at the county.

Since 2010, Mr. Williams has been the Technical Advisor under the Esri Enterprise Advantage Program for The Nature Conservancy (TNC), the world's largest conservation organization. As technical advisor, Mr. Williams is supporting TNC with their GIS strategic planning efforts and best practices as well as ad hoc application and development in support of their corporate and field staff.

From 2010 through 2012, Mr. Williams was the Technical Advisor under the Esri Enterprise Advantage Program for Freeport McMoRan the world's largest commercially traded copper, gold and molybdenum producer. As technical advisor, Mr. Williams supported Freeport McMoRan with their enterprise GIS consolidation and rollout from their corporate offices in Phoenix AZ, to their mine sites in the US and internationally.

From 2009 until 2014, Mr. Williams has been the Project Manager for two projects for the FDA Center for Food Safety and Applied Nutrition (CFSAN). The first project, is a Situational Awareness Viewer allows for the viewing of Firm inspection data, querying the Reportable Food Registry and Consumer Adverse Event Reporting System databases. The second project, Real-time Application for Tracking and Mapping (RAFT-MAP), allows for the collection of water quality information from water quality monitoring devices which are pulled behind a vessel. This information is used to monitor shellfish growing areas.

In 2012, Mr. Williams was the Project Manager for State Committee of Ukraine Land Registration Orthophoto Data Management Support Project. Esri reviewed existing orthophoto image processing and developed a set of data management workflows and data storage strategy utilizing ArcGIS Server Image Extension and mosaic datasets.

In 2011, Mr. Williams was the Project Manager for the Thurston County GeoData Center - System Architecture Design and Implementation Plan Project. Mr. Williams supported the System Architecture Design and developed an implementation plan for modernizing the county's GIS infrastructure and application migration to ArcGIS 10.0.

From 2009 until 2010, Mr. Williams was the Project Manager for a Solutions Recommendations project for the Chilean Institute of National Statistics (INE). This project involved conducting a user needs analysis and developing a set of recommendations for how INE can move from their ArcINFO coverage based workflow to an ArcGIS 10 based workflow supporting internet and mobile users for the 2010 Chilean Census.

From 2008-2009, Mr. Williams was the Project Manager for Rayonier Inc.'s Project Symphony. Rayonier is an international forest products company, structured as a Real Estate Investment Trust (REIT). This work included, assessment their current land systems, organizational structure and business processes and resulted in a set of recommendations on how to reorganize business functions and systems to support the goals of the REIT.

From 2007-2008, Mr. Williams was the project manager for Potlatch Corporation's Forest and Land Management System (FLMS). Potlatch implemented FLMS to consolidate business functions across their three main operating areas and standardized on single system to manage their forest inventory and land management and real estate functions. Mr. Williams lead the requirements gathering for the FLMS system, which lead to the evaluation of COTS Forestry and Land Records solutions that would meet Potlatch's needs. Potlatch deployed the system into production in 2008.

In 2007, Mr. Williams performed a one-week site assessment for the Government of Cyprus, Department of Lands and Surveys (DLS). This site assessment consisted of reviewing the existing land title, land registry, survey procedures and map production capabilities at DLS as well as the Computerized Integrated Land Information System (CILS), which supported those activities. Mr. Williams then drafted a report with an assessment of the

current CILIS application as well as an implementation plan for moving forward with a new National Land Information System (NLIS). The goals of NLIS are to modernize the land administration in Cyprus, facilitate interdepartmental data sharing and to adhere to the European Union (EU) INSPIRE initiative.

Also in 2007, Mr. Williams was the lead consultant for Minnesota Department of Natural Resources (MN DNR) - Land Records Management Process and System Needs Assessment. Mr. Williams conducted over thirty on-site interviews with stakeholders from three districts across eight different divisions. This information was synthesized into a Process and System Needs Assessment Summary Report which defined MN DNR's land records needs and a set of recommendations for moving forward with a new Land Records Management System. Mr. Williams also contributed to the Land records Background Paper which presents an overview of current trends in land records management and two in-depth case studies that describe how two public agencies have approached their land management business processes and information systems.

In 2007, Mr. Williams was the project manager for the St. Joe Company Land Management System. The Land Management System maintains over 1 million acres of land and facilitates the tracking of timber stands, land ownership, land development, and land sales. This project consisted of requirements gathering, design, development, and implementation of the land management system. This project leverages ArcGIS Server, ArcMap, and ArcSDE running on SQL Server.

Also in 2007, Mr. Williams was the project manager responsible for development of the spatial components to Plum Creek's Central Title System. This project consisted of overseeing the design and development of the GIS to edit and maintain land records (ownership, rights, and interests) on over 8 million acres of land. This project included ArcSDE geodatabase design and development, developing ArcMap tools for parcel editing with historical tracking, and maintaining connections to the tabular land records and scanned digital documents.

From 2004 until 2005, Mr. Williams was the project manager for a project defining the vision of Plum Creek's Integrated Land Systems. This project consisted of requirements gathering for a land records management system called Central Title System, creation of a Concept of Operations Document and overseeing a data conversion pilot.

In 2003, Mr. Williams supported Procalcuto Proxis S.A. in Bogota, Colombia in reviewing the database design and cadastral system for the Agustin Codazzi Geographic Institute (IGAC). IGAC is Colombia's national mapping agency responsible updating of the official map of the Republic and develop the policies and execute the plans of the National Government with respect to cartography, agronomy, land registry, and geography through the production, analysis, and dissemination of survey and environmental georeferenced information with the goal of supporting land planning and zoning processes.

From 2000 until 2004, Mr. Williams worked on a project to build a federal cadastre for the U.S. Bureau of Land Management (BLM). This project encompasses a field-to-fabric solution in that it provides a procedure for collecting survey data in the field and processing the data until it can be incorporated in a nationwide cadastral database. This project leverages ArcGIS, ArcGIS Survey Analyst, and ArcSDE.

In 2002, Mr. Williams was project manager for an Internet application for the Pacific Disaster Center. This application allows different agencies and the public to manage and follow different natural events (hurricanes, droughts, and fires) between the east coast of Africa and the west coast of the United States in real time. The application allows users to publish to the Web the real-time position of events as well as maps and reports of predicted damage and actual effects.

From 2001 until 2002, Mr. Williams was project manager for an Internet application for the Bureau of Land Management. The application was designed to distribute land survey information to the public and to allow the download of survey information in both ASCII and shapefile formats.

From 2000 until 2001, Mr. Williams worked on a project to develop an ArcIMS system that helped slow the spread of the West Nile virus in New York City. The New York City Department of Health and Esri collaborated on a surveillance system that tracked the location of infected samples and provided a response mechanism for handling all reported calls about mosquitoes and dead birds. Location information from samples was stored in a shared ArcSDE/SQL Server database.



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Planning and Permitting
System (MAPPS) project

In 2000, Mr. Williams worked on a project to develop an ArcPad-ArcIMS system that helped slow the spread of West Nile virus in Pennsylvania. The Pennsylvania Department of Environmental Protection (DEP), Department of Health (DOH), and Department of Agriculture (DOA) collaborated with one another, the county governments, and Esri on a surveillance system that tracked the location of infected samples. Location information from samples was stored in a shared ArcSDE Oracle database.

Technical Capabilities

Mr. Williams is an expert in user needs assessments, database design, systems analysis, application development and project management. He is well versed in ArcGIS Desktop, Server, and Mobile technologies. Additional technical expertise includes GIS system design and system integration.

Work History

Before joining Esri, Mr. Williams worked as a Graduate Assistant for the Office of Vice Provost for Undergraduate Education at the State University of New York, Buffalo. Working in the Transfer and Articulation Services Group, he was responsible for coding transfer courses for more than 1,800 transfer schools into the Degree Audit Reporting System (DARS) database. He was also responsible for managing the Articulation Reporting Information Evaluation System (ARIES) Web site. The site permitted the dynamic querying of articulated course work from the DARS database.

From 1998 to 1999, Mr. Williams was a GIS intern with the Town of Amherst Computer Services Division. He was responsible for the maintenance and creation of data layers for town wide GIS including parcels and building footprints as well as image processing of U.S. Geological Survey digital orthophoto quarter quadrangles (DOQQs), and digital elevation models for the creation of town wide contours.

From 1996 to 1998, as a sample manager with Recra Environmental, Inc., Mr. Williams was responsible for entering incoming laboratory samples into the laboratory database and assigning corresponding analysis tests (organic and inorganic (metals and general chemistry)) to the samples.

Employer	Position title	Position Dates
Esri	Senior Consultant/Project Manager	2009 - Present
	Consultant/Project Manager	1999-2008
State University of New York, Buffalo	Graduate Assistant	1998-1999
Town of Amherst	GIS Intern	1998-1999
Recra Environmental	Sample Manager	1996-1998

Continued Professional Development

Professional Certification

- Project Management Professional (PMP), Project Management Institute, 2008
- Certified ScrumMaster (CSM), Scrum Alliance, 2013
- Certified Scrum Product Owner (CSPO), Scrum Alliance, 2013

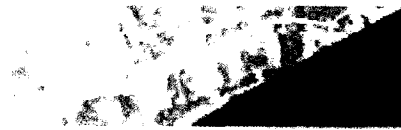
Training

- Certified Scrum Master, Innovel LLC, Redlands CA, 2013.
- Certified Scrum Product Owner, Innovel LLC, Redlands CA, 2013.
- *Earned Value Management and Project Scheduling*, Humphrey's and Associates, Redlands CA, 2011
- *Introduction to Editing Parcels Using ArcGIS Desktop 10*, Esri Learning Center, Redlands CA, 2011
- *Writing Advanced Geoprocessing Scripts Using Python*, Esri, Olympia WA, 2010

- *ArcGIS Survey Analyst - Maintaining Land Records Using the Cadastral Editor*, Esri Learning Center, Redlands, California, 2008.
- *Developing Applications with ArcGIS Server (.Net)*, Esri Learning Center, Redlands, California, 2005.
- *Software Project Management Boot Camp*, Construx, Bellevue, Washington, 2005.
- *Creating and Editing Parcels with ArcGIS*, Esri Learning Center, Redlands, California, 2004.
- *SQLMS Data Delivery Extension*, Esri Learning Center, Redlands, California, 2004.
- *Land Status- Legal Land Descriptions (Landscape)*, Bureau of Land Management National Training Center, Reno, Nevada, 2003.
- *Introduction to Programming ArcObjects with VB*, Esri Learning Center, Redlands, California, 2002.
- *UML Jumpstart: Use Case Driven Object Modeling with UML*, ICONIX Software Engineering, Inc., Esri, Redlands, California, 2002.
- *ArcSDE Administration for Oracle*, Esri Learning Center, Redlands, California, 2002.
- *Survey Analyst*, Esri Learning Center, Redlands, California, 2002.
- *Designing Geodatabases*, Esri Learning Center, Redlands, California, 2001.
- *National Lands Training for Line Officers and Program Managers*, National Conservation Training Center, Shepherdstown, West Virginia, 2000.
- *Introduction to ColdFusion*, Esri Learning Center, Redlands, California, 2000.
- *Introduction to Visual Basic*, Esri Learning Center, Redlands, California, 2000.
- *Introduction to ArcGIS*, Esri Learning Center, Redlands, California, 1999.

Presentations

- Williams, M., and C. Bjornsson, 2003 (July), "Federal Lands Data Model," 23rd Annual Esri User Conference, San Diego, California.



Maul's Automated
Planning and Permitting
System (MAPPS) project

Brenda Ibold



Application Programmer

Ms. Ibold joined Esri as an application programmer in 2008. Ms. Ibold has worked both as a team member on large projects and as the sole technical lead and developer on projects. She has thirteen years of software development experience.

Accomplishments

Ms. Ibold worked throughout 2013 on the ASP .Net web application, Virtual Port, for the Port of Long Beach, California. As a developer, she wrote Oracle stored procedures, C# code behind for ASMX and REST services, but focused primarily on JavaScript development for the application. She implemented bundling and minifying for the JavaScript files to increase the application performance. She also installed and upgraded Esri software, created web services and created a mosaic dataset and image service from multiple tif files to allow users to zoom in more closely than standard basemaps allow. Ms. Ibold completed integration with ArcGIS Online to allow users to create and load webmaps. Timeframe: January - November 2013

Ms. Ibold spent a month in Hoboken, New Jersey working with the Guy Carpenter mapping software scrum team. While there she implemented and prototyped the use of Esri Maps for MicroStrategy with their current reports. She also upgraded the Real Cat and Risk Profiler websites to use the same ArcGIS JavaScript implementation fixed printing issues and other problems with the application. Timeframe: September 2013

Ms. Ibold worked as a tool developer for the Soil Boring Log Silverlight web application belonging to the Metropolitan Water Reclamation District of Greater Chicago. She created tools to buffer, create selection sets and save and open selection sets. This tool allows users to store and retrieve critical information they need to work with and saved them time and resources. Timeframe: March - May 2013

Ms. Ibold developed a stand alone ASP.Net website for Cook County that is utilized by administrators to manage users, permissions and passwords. This simplified site administration for these users. Timeframe: March 2013

Ms. Ibold worked as a developer on the Electric Compliance project with Pacific Gas & Electric (PG&E). The tablet WPF application is used by inspectors in the field to ensure the above and below ground assets are in good working order, to add remove assets and work orders on these assets. Ms. Ibold was responsible for integrating the WPF application with the data application and added required functionality including various levels of identify, created custom renderers, various data grids with required functionality. Timeframe: March 2012 - September 2012

Highlights

- Technical developer on Virtual Port ASP .Net web application for Long Beach focusing on ArcGIS for JavaScript development and integration with ArcGIS Online
- SharePoint lead technician / programmer on the San Bernardino Fusion Center Critical Infrastructure project installing the geodatabase, configuring and enhancing the ASP .NET web services, the custom SharePoint web parts, the InfoPath form, and the Silverlight mapping component
- Technical for Wisconsin DNR ArcGIS Mapping page creating five custom tools integrating with both SQL Server through BCS service and internal SharePoint lists to provide mapping analysis capabilities.

GIS Experience

Five years with Esri, 10 years total with expertise in web map development using ArcGIS Server and related technologies

Education

- BS (Elementary Education) University of Cincinnati, Ohio, 1990
- Certificate in Geographic Information Science, University of Cincinnati, Ohio, 2008

Ms. Ibold worked on the Department of the Interior Landscaping Tool. She tested the installation documentation and updates to correct the document and the installation files. The project involved SharePoint site collections used to manage information between users types. Timeframe: September 2012

Ms. Ibold served as lead technician / programmer for the San Bernardino Critical Infrastructure Protection System for San Bernardino's Sheriff's Fusion Center. The project consisted of a SharePoint web application that includes custom SharePoint Web parts, an external InfoPath form, a Silverlight web application that creates ArcGIS Server web services, and a web ASP.NET web services for communication between SharePoint and an SDE geodatabase. Ms. Ibold created and configured the geodatabase, the custom web services and configured the SharePoint web application, the webparts, the InfoPath form, etc. Also wrote and provided customer with a detailed Administration Documentation and User Guide. Timeframe: Jan-Sept 2012

Ms. Ibold served as sole technician / programmer for Silverlight Map Viewer enhancement for United Water. The previous application was upgraded to Silverlight 5 to add additional functionality. The project involved an existing Silverlight 4 map viewer application for United Water that Ms. Ibold had already created and deployed. She upgraded it to Silverlight 5 and added functionality for annotation, redlining, printing, export to image or PDF. Timeframe: August 2012

Ms. Ibold worked as developer for creating ArcGIS Mapping Tools for the Wisconsin Department of Health Services. The project involved five highly customized tools added to an ArcGIS Mapping for SharePoint map to be used for statistical analysis that query SharePoint lists as well as data from a SQL Server database (through BCS service) for information. Ms. Ibold created a query tool, a two map comparison tool, a tool used to analyze geography for statistical information, a tool to export maps to PDF formation and a help tool

Ms. Ibold served as a developer, creating and adding two tools for a Silverlight mapping application (VB Net) for the Metropolitan Water Reclamation District (MRWD). These were a buffering tool and a selection tool that produced a custom Excel spreadsheet. Timeline: 2012

Ms. Ibold provided on-site technical support and training for the Metropolitan Water District of Southern California on two occasions. This support includes providing them with a Silverlight mapping application used to locate and interrogate fleet vehicles. Timeline: 2011

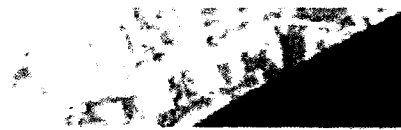
Ms. Ibold designed and created four health service tools to be used by the ArcGIS Map Web Part within a health services SharePoint site. Each provides a detailed view of health information using geographical analysis, including charts, graphs, and map comparisons. These tools were demonstrated to Esri Health Services customers at the 2011 Esri User Conference. These tools are to be used by the State of Wisconsin Health Services. Timeline: 2011

Ms. Ibold converted an existing ArcGIS web application (ADF) to a Silverlight application for United Water. This application was then enhanced to implement detailed user configuration for United Water's various agencies and was customized to include new and advanced features not part of the original application. Timeline: 2010-2011

Ms. Ibold worked with as a team member in the CAGS project, providing the National Geospatial Intelligence Agency with consequence analysis tools using the latest Esri technologies. She designed and implemented both the ASP.NET website and the Silverlight test harness. She served as the coordinator for testing and quality assessment. Timeline: 2010-2011

Ms. Ibold worked with a developer lead on the Department of Transportation Silverlight application shown at the 2010 Esri User Conference. For this application, she created a web map that reported distracted driver information for specified geographies, another which provided drive time tools and another providing accident data base on geographical input. Timeline: 2010

Ms. Ibold worked with the development on the Australian Government Department of Climate Change, NCAT application. She assisted with development of Silverlight application in implementing various components including creating map editing tools and chart displays. In addition, Ms. Ibold converted this application into a demonstration application for the government of Guyana. Timeline: 2010



Muni's Automated
Planning and Permitting
System (MAPPS) project

Ms. Ibold worked on the SharePoint portion of the Silver Shield application for the Las Vegas Municipal Police Department. This application is for critical infrastructure assessment and is implemented with ArcGIS Mobile Solution Toolkit, SharePoint, and ArcGIS 9.3.1. Timeline: 2009

Ms. Ibold worked on Version 5.0 of the National Integrated Land System (NILS). This system, developed for the U.S. Bureau of Land Management, provides tools for managing land information and has an Internet component that permits the public to discover and download land data. Ms. Ibold used JTM to work on an ArcGIS 9.2 Desktop application that permits data import and export. Timeline: 2008

Technical Capabilities

Ms. Ibold is a proficient JavaScript developer, with substantial experience with the ArcGIS API for JavaScript. She has worked with both JQuery and increasing with Dojo. She is a skilled Microsoft programmer, experienced with WPF, Silverlight, SharePoint and ASP.NET development. Her experience includes the use of various Esri web technologies, ArcGIS Server, the ArcGIS Silverlight Web API, the REST API, ArcGIS Mapping for SharePoint, and ArcGIS Runtime. She has also worked as the lead on several projects and is experienced working with project managers to develop technical requirements.

Work History

From 2003 to 2008, Ms. Ibold worked for the city of Cincinnati, specifically the Greater Cincinnati Water Works (GCWW), as a senior programmer/analyst in the development of an Esri Web ADF ASP.NET application and a Visual Basic MapObjects application. She was the lead and sole developer of a Windows document management application.

From 1999 to 2003, Ms. Ibold worked, first as a programmer/analyst and later as a senior programmer/analyst, for the Regional Crime Information Center (RCIC) of Hamilton County, Ohio. She was the sole support person for ClearL.E., the Offense Reporting system used by Hamilton County, Ohio, a C++ application with an Oracle database. She rewrote the Oracle stored procedure such that the system met FBI reporting standard. She was the sole support person for the Mayor's Court Microsoft Access VBA application is used by 10 police agencies in Hamilton County. For both she developed enhancements and fixed issues. She also created user documentation for both user support groups.

From 1997 to 1999, Ms. Ibold was a trainer/clerk for the Regional Crime Information Center (RCIC) of Hamilton County, Ohio. She taught two classes required by the state of Ohio for the certification necessary to gain access to criminal justice information systems. She developed the class materials and tests used by these classes; enhanced the Microsoft Access application used to automate the production of the tests. During this period, she was attending night classes to become a programmer.

From 1996 to 1997, Ms. Ibold was a trainer/clerk for the Cincinnati Police Department. As a data entry clerk, she entered traffic tickets into the Hamilton County traffic violations database.

From 1990 to 1995, Ms. Ibold was a teacher for the Oak Hills School District in Cincinnati, Ohio, and the Batesville Community Schools in Batesville, Indiana. She taught the second, fourth, and sixth grades. She also coached the Batesville Middle School girls' track team.

Esri	Application Developer	2008-Present
GCWW	Senior Programmer/Analyst	2003-2008
RCIC	Programmer/Analyst	1999-2003
	Clerk	1997-1999



Maul's Automated
Planning and Permitting
System (MAPPS) project

Cincinnati Police Department	Clerk	1996-1997
Batesville Community Schools	Teacher/Coach	1980-1995

Continued Professional Development

Certification

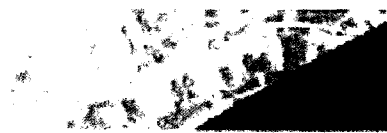
- Certificate of GIS, University of Cincinnati, Ohio, 2008.

Training

- Dojo Workshop, L.I. FourPlex Employee Training and Development, Redlands, California, Sept 25-27, 2012
- ArcGIS Server Enterprise Configuration and Tuning for SQL Server, Esri Learning Center, Redlands, California, 2008
- Extending ArcGIS Desktop Applications, Esri Learning Center, Redlands, California, 2008
- ArcGIS Server: Web Administration Using Microsoft .NET Framework, Esri Learning Center, Redlands, California, 2008.
- Introduction to ArcGIS Server, Esri Learning Center, Redlands, California, 2008
- Introduction to Programming ArcObjects Using the Microsoft (.NET) Framework, Esri Learning Center, Redlands, California, 2008.
- Developing Applications with ArcGIS Server Using the Microsoft .NET Framework, Esri Learning Center, Redlands, California, 2007
- GIS for Environmental Applications, University of Cincinnati, Ohio, 2007
- Introduction to Geographical Information Systems, University of Cincinnati, Ohio, 2006.
- SharePoint Development for .NET Developers, MAX Technical Training, Cincinnati, Ohio, 2006
- Introduction to Programming ArcObjects with VBA, Esri Learning Center, Redlands, California, 2006
- Developing ASP.NET Web Applications Using Visual Studio, MAX Technical Training, Cincinnati, Ohio, 2005
- Curator API Training, Identitech, Melbourne, Florida, 2004
- Programming MapObjects with Visual Basic, Esri Learning Center, Redlands, California, 2003.
- Enterprise DBA Part 1A: Architecture and Administration, Oracle University Training Center, Cincinnati, Ohio, 2002.
- Develop PL/SQL Program Units, Oracle University Training Center, Cincinnati, Ohio, 2001
- Introduction to Oracle –SQL/PLSQL, Oracle University Training Center, Cincinnati, Ohio, 2000.
- Ms. Ibold also completed various courses in computer science and computer programming, including Visual Basic 1, 2, and 3, Systems Analysis, DOS, and COBOL, at Cincinnati State, Ohio, from 1997 to 2001.

Academic and Professional Achievements

- Graduation Summa Cum Laude, University of Cincinnati, Ohio, 1990
- Recipient, Full Academic Scholarships, University of Cincinnati, Ohio, 1988, 1989, and 1990.
- Appointment as Marshal for Graduation Ceremony, University of Cincinnati, Ohio, 1990.



Maui's Automated
Planning and Permitting
System (MAPPS) project

Srinivas Suryanarayanaiah



Senior Technical Manager

Mr. Suryanarayanaiah joined Esri as a senior technical manager for Database Services in 2007. His responsibilities include the development of data production methodologies, including providing support for project management and quality control. He has more than 18 years of experience working with GIS projects, primarily in the utilities industry. Mr. Suryanarayanaiah has successfully managed many GIS data conversion and data migration projects.

Accomplishments

As a senior technical manager at Esri, Mr. Suryanarayanaiah is responsible for the management of GIS database design and GIS data development methodologies. His responsibilities include coordinating the activities of technical staff members to ensure that all team members are adhering to established procedures and their tasks are properly integrated into the production flow. He also develops production procedures, tools, and processes; identifies and resolves technical issues; implements and maintains quality assurance and quality control procedures; and tracks and reports project status to project managers. Additional technical responsibilities include user needs assessment, geodatabase design and implementation, and application development and testing.

Mr. Suryanarayanaiah is also responsible for serving as a trusted Technical Advisor to customers that have enrolled in Esri's Enterprise Advantage Program. In this capacity he provides guidance and assistance to help these organizations evolve their GIS implementations into systems that serve the entire organization providing the many benefits that GIS Technology can offer. In addition Mr. Suryanarayanaiah provides technical services for all types of consulting efforts related to development and implementation of GIS solutions.

Mr. Suryanarayanaiah supported the data migration project for the City of Fort Worth, TX. Mr. Suryanarayanaiah developed the data model, migration and quality control procedures and tools for the migration of City's water and wastewater infrastructure data to Local Government Information Model. Mr. Suryanarayanaiah also configured ArcGIS Workflow Manager to automate the data maintenance workflows. Timeframe: 2012-2013

Mr. Suryanarayanaiah supported the data migration project for the Metropolitan Water Reclamation District of Greater Chicago. Mr. Suryanarayanaiah developed the data model, migration and quality control procedures and tools for the migration of AutoCAD drawings to geodatabase. Mr. Suryanarayanaiah also configured ArcGIS Workflow Manager to automate the data maintenance workflows. Timeframe: 2011-2012

Mr. Suryanarayanaiah supported the data migration project for the Lands Department of the Government of Hong Kong, Special Administrative Area. Mr. Suryanarayanaiah developed the data migration and quality control procedures and tools and managed sub-contractor staff to deliver high-quality data on time to the Lands Department. Timeframe: 2008-2011

Highlights

- Supported data migration for Metropolitan Water Reclamation District
- Supported data migration for "2nd Generation Computerized Land Information System" (2GCLIS) for the Lands Department of the Government of Hong Kong SAR
- Supported data migration for OneOK's Texas Gas Service
- Managed data conversion for 20+ water systems for California Water Service Company

GIS Experience

7 years with Esri, 18 years total with technical and management expertise in database design, data conversion, data migration and development of quality control methodologies

Education

- Diploma in Mechanical Engineering from Department of Technical Education, Karnataka, India, 1992

Esri Certifications

- ArcGIS Desktop Professional

Mr. Suryanarayanaiah supported the data migration project for OneOK's Texas Gas Services. File-based data from AutoCAD were migrated to an enterprise geodatabase for better data management and analysis. Timeframe: 2007-2008

in the recent engagements. Mr. Suryanarayanaiah has managed or supported a wide variety of GIS projects for Sewerage and Water Board of New Orleans, City of Minneapolis, Indiana American Water, Metropolitan Water Reclamation District of Greater Chicago, City of San Clemente, Central Coast Water Authority, Yuba Valley Water District, Coachella Valley Water District, Maricopa County, City of Fort Worth, California Water Service Company and Jurupa Community Services District.

Technical Capabilities

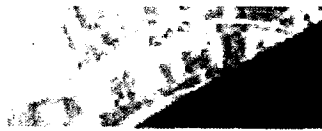
Mr. Suryanarayanaiah has extensive knowledge of data conversion and data migration for basemaps, water, wastewater, and gas industries and is well versed in designing data models using Visio and UML. He is skilled in the migration of data from ArcInfo coverages, Shapefiles, AutoCAD and MicroStation format to ArcGIS geodatabase format using geoprocessing models, created in ModelBuilder, Python scripting and Data Interoperability Extension. He is skilled with geodatabase replication technology and Esri's ArcGIS Workflow Manager and ArcGIS Data Reviewer software.

Work History

From 1993 to 2007, Mr. Suryanarayanaiah worked for Nobel Systems, Inc., in San Bernardino, California, first as a technician and then as a programmer, technical manager, project manager, and finally as an operations manager. As an operations manager, he was responsible for managing the overall operations of the company, including overseeing project managers and providing oversight for project execution.

As a project manager, Mr. Suryanarayanaiah managed many small to large GIS data conversion projects, including those below:

- In 2003, Mr. Suryanarayanaiah managed a basemap data conversion project for San Bernardino County, a project subcontracted to Nobel Systems by Esri. The project involved creating street centerlines and approximately 380,000 parcels using COGO methodologies. Data created using COGO was rectified to ground control points that were collected through GPS. Data was delivered as ArcInfo coverages. The project lasted two years and was completed well within schedule.
- In 2002, Mr. Suryanarayanaiah successfully completed a water data conversion project for the California Water Service Company, which operates 27 systems throughout California. The project included the conversion of data from hand-drawn plat sheets to ArcGIS geodatabase format, quality control/quality assurance, atlas book production for office and field staff, the dissemination of GIS data through a Web-based application built on ArcIMS, the development of data maintenance tools and procedures, and training. Mr. Suryanarayanaiah also managed a basemap maintenance project in which Nobel Systems procured parcel and assessor roll data from various counties in California on a regular basis to assist the California Water Service Company in maintaining current information.
- In 2001, for Imperial County, California, Mr. Suryanarayanaiah successfully managed the conversion of a basemap to GIS data. The basemap included parcels, lot lines, centerlines, tract boundaries, tax rate area boundaries, and so on. Mr. Suryanarayanaiah also managed an ongoing data maintenance project to help the county keep up with new development.



Mari's Automated Planning and Permitting System (MAPPS) project

- During 1994 and 1995, Mr. Suryanarayanaiah managed a GIS data conversion project for the Irvine Ranch Water District in California. For this project, he worked as a consultant subcontracted by Esri. He worked closely with Esri staff to understand and communicate the needs of the project to the production facility in India. He also worked for nine months as a consultant at Irvine Ranch Water District to support the district in keeping the GIS data current and training district staff in performing GIS data conversion. He was also involved in performing updates to the GIS data.

Employer	Position title	Position Dates
Esri	Senior Technical Manager	2007-Present
Nobel Systems Inc	Operations Manager	2002-2007
	Project Manager	1998-2002

Continued Professional Development

Training

- Introduction to ArcGIS Server*, Esri Learning Center, Redlands, California, 2012
- Introduction to Geoprocessing Scripts Using Python*, Esri Learning Center, Redlands, California, 2010
- Understanding ArcGIS Workflow Manager*, Esri Learning Center, Redlands, California, 2010
- FME Interoperability by Safe Software*, Esri Learning Center, Redlands, California, 2010
- Introduction to Geoprocessing Scripts Using Python*, Esri Learning Center, Redlands, California, 2010
- ArcGIS Server Enterprise Configuration and Tuning for SQL Server*, Esri Learning Center, Redlands, CA, 2008
- Managing Editing Workflows in a Multiuser Geodatabase*, Esri Learning Center, Redlands, California, 2008
- Building Geodatabases*, Esri Learning Center, Redlands, California, 2007
- Introduction to the Multiuser Geodatabase*, Esri Learning Center, Redlands, California, 2007
- Programming in Visual Basic*, University of California, Riverside Extension, 2000
- Introduction to ArcInfo*, Esri Instructor-Led Training, Bangalore, India, 1996

Presentations

- Rodriguez, J. M., and S. Suryanarayanaiah, 2005 (July), "Web Deployment of GIS Basemap," 25th Annual ESRI International User Conference, San Diego, California.
- Apodaca, M., and S. Suryanarayanaiah, 2004 (December), "GIS at the City of Pico Rivera," Southern California Water/Wastewater User Group Meeting, Pico Rivera, California.
- Suryanarayanaiah, S., 2004 (November), "Web Deployment of GIS Data," Esri User Group Meeting, San Luis Obispo, California.
- Suryanarayanaiah, S., 2004 (October), "GIS at Imperial County," Esri User Group Meeting, Imperial County, California.
- Harr, E., and S. Suryanarayanaiah, 2004 (October), "GIS at California Water Service Company," Esri User Group Meeting, Monterey, California.
- Suryanarayanaiah, S., and G. Fong, 2004 (September), "Web Deployment of GIS Data," Esri User Group Meeting, Ventura/Santa Barbara, California.

Royce A. Jones, GISP

Hawaii-Pacific Region Manager

Mr. Jones joined Esri in 1999 as an account manager in the Honolulu, Hawaii, office. His responsibilities include project management and consulting support for GIS projects in Hawaii, Guam, and the Pacific. He has more than 40 years of experience related to geography and computer mapping, including nine years as a senior GIS analyst and the principal of GDSI Hawaii.

Accomplishments

Mr. Jones' areas of expertise are data processing, GIS, cadastral (parcel), and redistricting/elections support. The specific consultative and implementation functions he performs for an agency may include user needs assessment, system acquisition, database development, product customization, and technical support. He has extensive experience in developing custom applications and in providing training. He also coordinates the design work for projects, manages schedule and budget, and coordinates with technical personnel.

Mr. Jones has worked with the City and County of Honolulu Wastewater Information Management System since 1992, providing programming, training, and troubleshooting assistance to the Department of Environmental Services. He designed and wrote extensive programs to convert AutoCAD/dBASE data into ARC/INFO coverage for incorporation into the City and County of Honolulu GIS. In addition, Mr. Jones used Oracle in conjunction with his work designing and programming the Sewer Information Maintenance System—Enhanced (SIMSE) and wrote programs to display and edit Oracle data from ArcInfo and ArcView GIS.

Mr. Jones worked as GIS consultant for the Maui County Office of Council Services. He used ArcView and ArcIMS to support public dissemination of information relating to proposed community plan updates. He also made presentations and operated the GIS at public meetings of the Maui County Planning Commission.

Mr. Jones also worked as the primary GIS consultant for the State of Hawaii 2001 and 2011 Reapportionment Project. He managed Esri staff and consultants to acquire data in support of redistricting, worked with the State Reapportionment Commission to come up with a redistricting plan, and made public presentations on the plan and the methodology used for redistricting.

Technical Capabilities

Mr. Jones' technical skills include the following:

- ArcGIS for Desktop software and extensions
- ArcGIS for Server software
- ArcGIS Online
- Esri Reapportionment Online software
- ArcGIS API for Flex, ArcGIS Javascript API, Python

Highlights

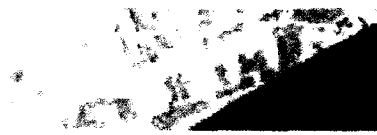
- Areas of expertise include data processing, cadastral (parcel), and redistricting/elections support
- Worked as the primary GIS consultant for the State of Hawaii

GIS Experience

Fifteen years with Esri, 41 years total, with expertise in computer mapping and GIS

Education

- PhD (Geography) (all but dissertation) University of Hawaii, 1990
- MEd (Education Technology) University of Hawaii, Honolulu, 1987
- BS (Geology), Stanford University, California, 1980
- AA (Geology), San Bernardino Valley College, California, 1976



**Mau's Automated
Planning and Permitting
System (MAPPS) project**

Work History

From 1990 to 1999, Mr. Jones was the principal and senior GIS analyst for GDSI Hawaii, a firm he founded to provide GIS consulting services to Hawaii, the Pacific, and Asia. GDSI handled international, federal, state, and county projects, some of which are listed below.

- For the US Agency for International Development, GDSI analyzed the GIS needs of the Nepalese Ministry of Forests and Environment in Kathmandu.
- For the Ford Foundation and the East-West Center, Honolulu, Hawaii, GDSI provided GIS training for the faculty of Chiang Mai University in Chiang Mai, Thailand.
- For the US Fish and Wildlife Service, GDSI prepared digital and paper maps to support the establishment of a wildlife refuge in Guam.
- For the US Natural Resources Conservation Service, GDSI delineated and digitized watershed areas.
- For the Department of Hawaiian Home Lands, State of Hawaii, GDSI prepared digital and paper maps to support a 16,000-acre land transfer.
- For the Office of Hawaiian Affairs, State of Hawaii, GDSI established in-house GIS capabilities.
- For the Department of Environmental Services, City and County of Honolulu, GDSI created ARC Macro language (AML) and Avenue applications for wastewater data maintenance.
- For the Department of Planning, Maui County, GDSI established in-house GIS capabilities and created AML applications for map design and spatial analysis.
- For the Department of Planning, Kauai County, GDSI prepared digital and paper maps to support general plan updates.

From 1988 to 1989, Mr. Jones taught an undergraduate class on spatial statistics for geographers at the University of Hawaii, Honolulu.

From 1987 to 1990, Mr. Jones was a GIS analyst (part-time) for the US Geological Survey Water Resources Division in Honolulu. He managed a GIS laboratory and performed hydrologic analyses using GIS. He was also a GIS analyst (part-time) for the East-West Center in Honolulu; he managed a GIS laboratory as well and trained students and researchers in the use of ARC/INFO.

From 1984 to 1987, Mr. Jones had an East-West Center scholarship grant to earn the degree of MEd from the University of Hawaii.

From 1980 to 1984, Mr. Jones worked as a computer analyst for the US Agency for International Development in Kathmandu, Nepal. He created software for the Nepalese Ministry of Health using Apple II computers. He also trained the Nepalese staff. In 1981, he created a program to make choropleth maps from data in VisiCalc spreadsheets.

From 1976 to 1980, Mr. Jones was a student and special studies professor at Stanford University in California. While working on a degree in geology, he designed and taught an undergraduate special studies class on the geology of the Grand Canyon. In 1977, he created digital 3D maps modeling subsurface abrasion under a glacier. He also worked part-time as a minerals research intern at the US Geological Survey in Menlo Park.

From 1972 to 1976, Mr. Jones was a tutor at San Bernardino Valley College in California. He conducted laboratories and tutored students in geology, physics, chemistry, and mathematics. In 1972, he created digital maps of Death Valley and South America.

Esri	Hawaii-Pacific Region Manager	1999 – Present
GDSI Hawaii	Owner	1990 – 1999
US Geological Survey	GIS Analyst (part-time)	1987-1990

East-West Center	GIS Analyst (part-time)	1987-1990
US Agency for International Development	Computer Analyst	1980-1984
US Geological Survey	Research Intern	1977-1979
San Bernardino Valley College	Computer Assistant	1972-1976

Continued Professional Development

Certification

- Certified geographic information systems professional (GISP).
- Founding Member, Hawaii Geographic Information Coordinating Council (HIGICC). Board Member 1999-2003, 2006-2012; President 1999-2003, 2011-2012

Training

- ArcGIS Desktop, ArcGIS Server and ArcGIS Online

Presentations

- Hack to the Future, National Day of Civic Hacking, May 2014
- Hawaii Build and Buy Green Conference, May 2014.
- Hawaii Unconferenz, March 2014.
- Hack to the Future, National Day of Civic Hacking, June 2013
- Pacific Center for Advanced Technology Training II Summit, May 2013
- Hawaii Unconferenz, March 2013
- Hawaii Land Surveyors Association Conference, February 2013.
- Hawaii Congress of Planning Officials (HCPO) Conference, September 2012.
- Hawaii Statewide GIS Conference, March 2012.
- Hawaii Land Surveyors Association Conference, February 2012.
- Hawaii Reapportionment Commission 2011, May 2011 through March 2012.
- HCPO Conference, September 2011.
- DILNR/Federal Emergency Management Agency (FEMA) Floodplain Managers Conference, August 2011
- He Huliau Hawaii Healthcare Resources Conference, March 2011
- American Statistical Association Hawaii Chapter Meeting, February 2011.
- Department of Business, Economic Development & Tourism (DBEDT) Hawaii State Data Center Affiliates Meeting, February 2011.
- Hawaii Land Surveyors Association Conference, February 2011.
- American Council of Engineering Companies Meeting, February 2011.



Maui's Automated
Planning and Permitting
System (MAPPS) project

Attachment A – Esri Master Services Agreement

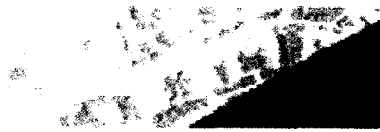
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Mauri's Automated
Planning and Permitting
System (MAPPS) project

Attachment B – Esri Software Pricing

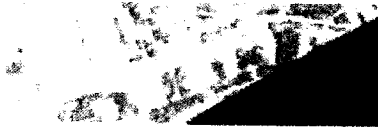
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Mauli's Automated
Planning and Permitting
System (MAPPS) project

Attachment C – Esri Hardware Recommendations

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Maui's Automated
Planning and Permitting
System (MAPPS) project

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ESRI BAFO Clarification

23. Provide a revised project plan. The revised plan must include both permitting and GIS activities. The project plan must address all plan requirements described in RFP Section 4.4.8.1 Project Management Approach. Additionally, the project plan must identify key milestones, such as, completion of deliverables, completion of testing, and stakeholder reviews/rollouts.

<See revised project plan>

24. Clearly describe the implementation approach, and any limitations of scope, for the conversion of the County's GIS data into the LGIM, creating the centralized enterprise geodatabase for use in MAPPS, for setting up the geodatabase server, for creating the portal and for providing GIS training. Be sure to address specific tasks involved, deliverable, time lines, and County staff/resources that would be expected during the creation and implementation.

The migration of the County's GIS data into the LGIM and creation of portal will be accomplished via a set of interrelated tasks that will occur over 10 months. The centralization of the GIS data within the County of Maui will be done through the configuration of the ArcGIS Local Government Information model and of Portal for ArcGIS, which is an extension to ArcGIS for Server. No custom development is envisioned for this work, and the consolidation the county's GIS will be done through configuration of ArcGIS components, leveraging the LGIM and the application templates provided with the ArcGIS for Local Government Resource Center and those included with Portal for ArcGIS. In more detail these tasks include:

Task 1: Project Initiation and Planning

- Esri Project Manager will develop a preliminary Project Management Plan based on the scope of the contracted services. The preliminary Project Management Plan will address the following:
 - Project management approach
 - Team members with roles and responsibilities
 - Contracted scope of work
 - Project schedule and milestones
 - Deliverables
 - Acceptance management
 - Quality management
 - Communication process
 - Risk and Issue management
 - Progress reporting
 - Change management
- Esri project staff will travel to Maui County offices to lead a 1 day Project Kickoff Meeting for the GIS Centralization activities.
 - Project and solution overview
 - Introduction of team members and identification of project roles

ESRI BAFO Clarification

- Review of project activities to date
 - Review and discussion of the preliminary Project Management Plan
 - Finalization of project planning items
- Deliverables:
 - Project Management Plan
 - Kickoff Meeting
- Timeline: 13 days
- County Staff Required: County Project Manager and Key project stakeholders for 1 day kickoff meeting, County PM to review Project Management Plan

Task 2: GIS Vision and Requirements Validation

- Esri project staff will travel to Maui County offices in Wailuku, HI, for a period of 3 business days to conduct a GIS Vision and Requirements Validation Meeting. The Requirements Validation Meetings will cover the following areas:
 - Targeted technology demonstrations of software components as a means of introducing Maui County to the proposed solution for the project.
 - Assessment of existing systems, application, data, and architecture
 - Business requirements (functional and nonfunctional)
 - Workflows/Processes (use cases)
 - Interface requirements
 - Data requirements (e.g., data access, maintenance, storage, distribution)
 - Application deployment requirements
 - Operational requirements (including system administration and maintenance)
 - Security requirements
- Upon completion of the Requirements Validation Meetings, Esri will develop a GIS Vision and Requirements Specification Document
- Deliverable:
 - Requirements Specification Document
- Timeline: 23 days
- County Staff Required: County Project Manager and Key project stakeholders for 3 day Requirements Review Meeting and ½ day of time per person to review of Requirements Specification Document

Task 3: System Architecture Design

- An Esri senior technical consultant will travel to County's offices in Wailuku, HI for a period of three business days to conduct a System Architecture Design Workshop. The purpose of the workshop is to collect information about the County's GIS system vision and goals, user and

ESRI BAFO Clarification

system requirements, current and future business architecture, application architecture, data architecture, and technology architecture to support development of a centralized GIS architecture design recommendations.

- Upon completion of the System Architecture Design Workshop, Esri will document the system architecture based on the results of the workshop. This will include the following:
 - Esri Software list and supporting software
 - Esri Software Licensing recommendations
 - Hardware supporting Esri-based applications and supporting software
 - Logical and Physical architecture diagram showing the location and interaction of GIS System hardware and software components supporting Esri-based applications
 - System sizing recommendations
 - Integration points with non-Esri-based systems
- Deliverables:
 - System Architecture Design Workshop
 - System Architecture Design Document
- Timeline: 32 days
- County Staff Required: County Project Manager and Key project stakeholders for 3 day System Architecture Design Workshop, including system administrators and networking staff. Plus ¼ day of time per person to review the System Architecture Design Document

Task 4: GIS Data Migration

Task 4.1: Data Mapping Workshop:

- Esri will conduct a 5 Day Data Mapping Workshop whereby Esri will work with the current GIS data stewards from all the departments participating in the project to review which data are being maintained and to map feature classes and attribute data to the LGIM. In cases where the same layer is being maintained by multiple departments, discussions will be had to determine who should ultimately be the layer data steward and own that layer. This will form the basis of the GIS data governance in determining who is responsible for maintain the data, and who needs to access it, and how current does that data layer need to be.
- Following the 5 Day Data Mapping workshop, Esri will document the findings in a data matrix which will document:
 - who owns a layer
 - who consumes a layer
 - how current the layer is updated
 - which feature class it maps to in the LGIM
 - what changes are needed to the LGIM
 - new feature classes
 - new attributes
 - domain changes
 - subtypes

ESRI BAFO Clarification

- relationship classes
 - what applications will consume the data
- The data matrix will indicate all the layers that are to be migrated into the LGIM. This list of data will be capped at 200 layers. Esri will review the data migration matrix with the county data stewards during a 2 hour webcast and will update the data mapping matrix as mutually agreed
- Deliverables:
 - 5 day Data Migration Workshop
 - Data Mapping Matrix Document
- Timeline: 15 days
- County Staff Required: County Project Manager and GIS data stewards for 5 day Data Migration Workshop. Plus ½ day of time per person to review the Data Mapping Matrix Document

Task 4.2: Migrate Data to the LGIM Schema:

- Esri will establish a test environment at Esri offices in Redlands, California and remotely assist the County in setting up a development/test environment at the County's offices in Wailuku, HI. These test environments will support the creation and testing of extraction, transformation, and loading (ETL) scripts, data migration scripts if applicable, data reviewer scripts, and any additional quality assurance/quality check (QA/QC) scripts (if applicable). The purpose of the test environment at Esri is to provide a controlled environment that mimics the County's test and production environment as closely as possible to test the functionality of the scripts before testing them in the County's test environment.
- Based on the accepted Data Mapping Matrix, Esri will create the data migration ETL scripts to migrate the county data into the test environment. Esri will then run the scripts at first in Esri's test environment and then in the County's development/test environment to create the County's LGIM schema and to load data to it from the current GIS and any other County databases that were identified as a source of attribute data in the accepted Data Mapping Matrix.
- Esri will conduct webcast Development Review Meetings during this task to elicit comments and inform the County on the status of the task. The frequency of the webcast Review Meetings will be mutually agreed upon by Esri and the County.
- Deliverable:
 - ETL Scripts
- Timeline: 25 days
- County Staff Required: County Project Manager and Data Stewards for 3 - 1 hour webcast ETL script development review

Task 4.3: Assess Conversion Quality and Generate Reports

ESRI BAFO Clarification

- Esri will assess the quality and accuracy of the conversion, and generate reports on resulting inventory data gaps, e.g. empty LGIM feature classes/fields, native County data migrated "as-is", and other discrepancies in the LGIM version of the database resulting from the migration
- Esri will prepare a Test Plan that will identify procedures, types of testing, and test strategy to be used for acceptance of the migration of the County's geodatabase to its configured LGIM schema during the IAT and UAT tasks. The Test Plan will include Test Scripts and identify the criteria that the County will use to determine acceptance of the configured LGIM schema.
- Esri will conduct Internal Acceptance Testing at Esri offices in Redlands, California. The test scripts contained in the accepted Test Plan will form the basis of whether the migrated LGIM passes the IAT process. The objective of IAT is to confirm that the LGIM migration complies with the accepted Test Plan prior to delivering the application to the County for UAT. IAT will implement the same procedures that the County will use during UAT in an environment that replicates the County's environment as closely as possible.
- During IAT, Esri's test team will log defects in Esri's defect tracking system. Esri will review defect reports and identify those that require defect fixes for resolution. Where appropriate, defect fixes will be made and regression tested during IAT.
- At the conclusion of IAT, Esri will compile an IAT test report documenting the results of the IAT. The IAT test results report includes:
 - Summary of the testing approach
 - Recommendation on readiness to proceed with UAT
 - Test results, including pass/fail decision for Test Scripts, and list of defects
- Esri will conduct a two hour IAT review meeting, via webcast, with the County to review the IAT test results report, including the readiness of the ETL migration scripts for UAT in the County's test/quality assurance environment.
- Once the ETL migration scripts are ready for UAT, Esri will create and deliver a release package to the County for deployment in the County's Test/Quality Assurance environment for UAT. The release package will include:
 - ETL Software (Data Interoperability extension for ArcGIS for Desktop)
 - ETL Scripts
 - QA/QC software (Data Reviewer extension for ArcGIS for Desktop)
 - QA/QC scripts
 - Release notes
 - Installation instructions
- IAT will be deemed complete when all IAT test scripts have been executed and defect thresholds in the acceptance criteria as defined in the accepted Test Plan have not been exceeded.
- Esri Deliverables:
 - Test Plan Document
 - IAT test results report.
 - Data Reviewer extension for ArcGIS for Desktop
 - Data Interoperability extension for ArcGIS for Desktop

ESRI BAFO Clarification

- Release package that will be used for UAT
- Timeline: 23 days
- County Staff Required: County Project Manager and Data Stewards for 1 - 2 hour webcast on UAT results

Task 4.4 Deliver Data, ETL Scripts, and Source Code

- Esri will deliver and install on the County's system the ETL tools and source code used in the migration, and run the tools for a data migration. This will be done in the Test/Quality Assurance (QA) environment for the UAT and in production for implementation once UAT has been accepted. Upon UAT Acceptance Esri will deliver the data.
- To initiate UAT, Esri will travel to the County's office in Wailuku, HI for a period of seven consecutive business days. Esri will install the test geodatabase, ETL software (Data Interoperability extension for ArcGIS for Desktop), QA/QC software (Data Reviewer extension for ArcGIS for Desktop), ETL Scripts, QA/QC scripts, and loading the appropriate data in the County's Test/QA environment to prepare the environment for UAT.
- Immediately following the UAT environment deployment, Esri will provide the County's test team with a one-day training class on how to test the migration based on the accepted Test Plan.
- During UAT, the County's testing team and Esri will hold daily defect review meetings or conference calls to review the open defects and associated severity. At the conclusion of UAT, Esri will create a software test report documenting the result of UAT. The Esri project manager will lead a conference call with the County to discuss the report, including any outstanding issues/defect fixes and a plan to resolve them.
- The deployment of the final data delivery into the County's production environment for operational use can be initiated after UAT is complete and the County has provided Esri with written acceptance.
- Esri will travel to the County's offices in Wailuku, HI for a period of three consecutive business days to install and configure the following:
 - ETL Software
 - ETL Scripts
 - QA/QC software
 - QA/QC scripts
- Esri Deliverables:
 - Provide one day of on-site UAT installation and preparation support.
 - Provide one day of on-site test team training.
 - Provide five days of on-site support during UAT.
 - Provide up to two revised releases to the ETL migration scripts.
 - Provide test results report at the conclusion of UAT.

ESRI BAFO Clarification

- Install the ETL software.
- Configure the ETL migration scripts.
- Run ETL scripts.
- QA/QC software, Data Reviewer extension for ArcGIS for Desktop.
- Configure QA/QC scripts.
- Run QA/QC scripts.
- Final converted data
- Timeline: 13 days
- County Staff Required: County Project Manager and Data Stewards, System Administrators to be available for installation, ETL training at UAT over the course of 7 consecutive days, and 3 days of production installation

Task 5 GIS Portal Configuration and Deployment

- Based on the accepted requirements specification document from Task 2, Esri will perform an onsite install and configuration of Portal for ArcGIS at Maui County. This activity will occur over the course of 10 consecutive business days. The onsite configuration and deployment will include:
 - A standard organizational assessment
 - Installation and configuration of the Portal for ArcGIS Software
 - Configuring supported user authentication systems to work with Portal for ArcGIS (standard LDAP, AD, IWA, or PKI)
 - Configuring organizational settings including color scheme, logos, and graphics
 - Configuring one or more existing ArcGIS Server sites with Portal for ArcGIS
 - Configuring one existing ArcGIS Server site as the hosting server for Portal for ArcGIS
 - Identifying and loading a sample of representative content
 - Creating a up to 5 representative web maps
 - Deploying up to 5 local government apps such as
 - Notifying Property Owners
 - Parcel Finder
 - Public Comment
 - Public Information Map
 - Executive Dashboard
 - Best practices knowledge transfer for authoring and sharing content
 - Additional feature overviews such as publishing content, accessing content with mobile devices, and using Esri Maps for Office

ESRI BAFO Clarification

- Additional knowledge transfer topics on:
 - Using the management console and administrative tools
 - Operations and maintenance
 - Data management
 - Securing content
 - Creating and configuring existing web app templates
 - Cartographic considerations
- Esri Deliverables:
 - Install and Configure Portal for ArcGIS
 - Install and Configure up to 5 Local Government Template Apps
- Timeline: 25 days
- County Staff Required: County Project Manager and System Administrators to be available for installation and configuration 3 days, GIS Publishers and Portal Administrators available for 5 days of configuration and training.

Task 6 Mobile Inspections

- Based on the accepted requirements specification document from Task 2, Esri will conduct an onsite Mobile Inspections workshop where Collector for ArcGIS will be configured to support a GIS field survey. Collector for ArcGIS enabled field users to edit and collect information in a disconnected mode and synchronize them back to Portal for ArcGIS and ArcGIS Server. The onsite configuration and deployment will include:
 - Configuration of up to 5 feature classes to be utilizing for field data collection
 - Publishing a feature service and registering it with Portal for ArcGIS
 - Sync enabling the service within Portal for ArcGIS
 - Creation of a web map to use offline in Collector for ArcGIS
 - Configuration of a basemap to use for field data collection
 - Exercise in utilizing Collector for ArcGIS on either iOS or Android devices
- Esri anticipates that 1 consultant will support this activity for up to 5 consecutive business days on-site at Maui County offices in Wailuku, HI.
- Esri Deliverable:
 - Configure collector for ArcGIS
- Timeline: 10 days
- County Staff Required: County Project Manager and GIS Publishers and Portal Administrators available for 5 days of configuration and training.

Task 7: Training on ArcGIS for Local Government

Upon the acceptance of the migrated County Data into the LGIM in Task 4, and Task 5, an Esri Consultant will spend up to 4 days Training up to 15 students on how to work with and manage the data stored in the LGIM. Topics for this workshop will include:

ESRI BAFO Clarification

- Overview of LGIM data model and underlying components
 - Land Records
 - Water Utilities
 - Public Works
 - Fire Service
 - Emergency Management
 - Law Enforcement
 - Planning and Development
 - Elections
- Editing LGIM data
- Working with Local Government COTS Applications
- Esri Deliverable
 - Training on working with ArcGIS for Local Government
- Timeline: 15 days
- County Staff Required: County Project Manager and GIS Data Stewards available for 4 days of training.

25. Describe the proposed GIS data governance approach and the process to implement this governance plan

- **GIS Data Governance will be a priority throughout the GIS Centralization effort. During Task 2, GIS Requirements and Visioning Phase, time will be allocated to understand and discuss current data governance policies and issues that are occurring. A goal of the project is to make sure that all GIS data layers have an owner who is responsible for its maintenance as well as understand what other departments and applications depend on that data. In cases where the same layer is being maintained by multiple departments, discussions will be had to determine who should ultimately be the layer data steward and own that layer. This will form the basis of the GIS data governance in determining who is responsible for maintain the data, and who needs to access it, and how current does that data layer need to be. In Task 4, this information will be cataloged in a data migration matrix, which will be used as a reference moving forward on the project. Once the data has been migrated into the LGIM, Data Services will be published into Portal for ArcGIS and organized by groups. The groups may very well end up being the departments who maintain the data, but information about the frequency of updates and how to access the data. In Task 7, we will train the end users on how to use the data in the LGIM and discuss topics such as the best way to maintain a parcel layer and make it accessible to other departments so that layers such as zoning can be kept current.**

ESRI BAFO Clarification

27. Most proposal responses acknowledged the minimum deliverable requirements or provided a list of deliverables, but did not provide any detail on what the deliverables would contain. Confirm the list of proposed deliverables and also describe their content (both permitting and GIS related). For example, permitting configuration design documentation would include workflow, scripting, pseudo-code, etc.

GIS Centralization Deliverables

Task	Deliverable	Description
Task 1	Project Management Plan	<p>The preliminary Project Management Plan will address the following:</p> <ul style="list-style-type: none"> • Project management approach • Team members with roles and responsibilities • Contracted scope of work • Project schedule and milestones • Deliverables • Acceptance management • Quality management • Communication process • Risk and issue management • Progress reporting • Change management
Task 1.1	Project Kickoff Meeting	<p>The meeting will cover the following topics:</p> <ul style="list-style-type: none"> • Project and solution overview • Introduction of team members and identification of project roles • Review of project activities to date • Review and discussion of the preliminary Project Management Plan • Finalization of project planning items
Task 2	Requirements Specification Document	<ul style="list-style-type: none"> • High-level solution architecture and concept of operations—An overview diagram that illustrates the major functional components of centralized GIS, and how it relates to the rest of the permitting application, combined with a description of the function and behavior of each major component from a user perspective. • Domain model—A conceptual model of centralized GIS which describes the various entities involved in county wide GIS and their relationships. • Business Scenarios—At a high-level, contains a set of activities that users of this solution would perform. The scenarios are developed to help analyze key use cases within the boundary of the requirement sets. • High-level use cases—Contains a description of the interaction between the user and the GIS applications to outline the expected behavior and outcome of the

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		<p>custom functions to be developed.</p> <ul style="list-style-type: none"> • Detailed list of requirements, including functional and nonfunctional requirements—This list of requirements defines what will be built/configured as part of centralized GIS and is the baseline for subsequent implementation activities. The list will include a brief description of the requirements and traceability to use cases, business scenarios, and requirements originator.
Task 3.1	Three-day System Architecture Design Workshop	<ul style="list-style-type: none"> • Three day System Architecture Design Workshop in which the following topics will be covered: <ul style="list-style-type: none"> ◦ Architecture Vision ◦ Business Drivers ◦ Sites ◦ User Workflows ◦ Data Architecture ◦ Application Architecture ◦ Technology Architecture ◦ Capacity Planning
Task 3.2	System Architecture Design Document	<p>This will include the following:</p> <ul style="list-style-type: none"> • Esri Software list and supporting software • Esri Software licensing recommendations • Hardware supporting Esri-based applications and supporting software • Logical and Physical architecture diagram showing the location and interaction of GIS system • hardware and software components supporting Esri-based applications • System sizing recommendations, including capacity estimates for: <ul style="list-style-type: none"> • CPU • Memory • Network • Storage • Integration points with non-Esri-based systems
Task 4.1	Data Mapping Workshop	<ul style="list-style-type: none"> • A Five Day Data Mapping Workshop, during which Esri will also review and document the data requirements of key applications and internal databases that will consume GIS data or interact with GIS data from the LGIM schema. As part of this review, detailed process and workflow mapping of the following systems will be analyzed.
Task 4.1.1	Data Mapping Matrix	<p>Data Mapping Matrix which will include the following:</p> <ul style="list-style-type: none"> • Feature classes and attributes in the current geodatabase mapped to the LGIM

ESRI BAFO Clarification

		<ul style="list-style-type: none"> • Document any attribute data mapped for another database to the LGIM • Additional feature classes and attributes added to the LGIM based upon the workshop • findings • Documented changes to LGIM domains • Documented changes to: <ul style="list-style-type: none"> o Subtypes o Data types o Relationship classes
Task 4.2.2	ETL Scripts	<ul style="list-style-type: none"> • ETL data migration scripts
Task 4.3.1	Test Plan	<p>The Test Plan will include the following content:</p> <ul style="list-style-type: none"> • Schedule of testing activities • The types of test or testing cycles that will be completed prior to and during UAT, and • their location • Testing logistics for Esri internal testing activities and those conducted during UAT • Specifications for the testing environment(s) that will be used • Roles and responsibilities during testing • Test reporting • User acceptance criteria • Corrective action procedures
Task 4.3.2	Internal Acceptance Test	<ul style="list-style-type: none"> • IAT test results report. • Data Reviewer extension for ArcGIS for Desktop • Data Interoperability extension for ArcGIS for Desktop • Release package that will be used for UAT.
Task 4.4.1	User Acceptance Test	<ul style="list-style-type: none"> • Provide one day of on-site UAT installation and preparation support. • Provide one day of on-site test team training. • Provide five days of on-site support during UAT. • Provide up to two revised releases to the ETL migration scripts. • Provide test results report at the conclusion of UAT.
Task 4.4.2	User Acceptance Testing	<ul style="list-style-type: none"> • Install the ETL software. • Configure the ETL migration scripts. • Run ETL scripts. • QA/QC software, Data Reviewer extension for ArcGIS for Desktop. • Configure QA/QC scripts. • Run QA/QC scripts. • Final converted data

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Task 5	GIS Portal Configuration	<ul style="list-style-type: none"> • Install and Configure Portal for ArcGIS • Install and Configure up to 5 Local Government Template Apps
Task 6	Configure Collector for ArcGIS	<ul style="list-style-type: none"> • Configuration of up to 5 feature classes to be utilizing for field data collection • Publishing a feature service and registering it with Portal for ArcGIS • Sync enabling the service within Portal for ArcGIS • Creation of a web map to use offline in Collector for ArcGIS • Configuration of a basemap to use for field data collection • Exercise in utilizing Collector for ArcGIS on either iOS or Android devices
Task 7	Training on working with ArcGIS for Local Government	<p>4 Day LGIM workshop will include:</p> <ul style="list-style-type: none"> • Overview of LGIM data model and underlying components <ul style="list-style-type: none"> ○ Land Records ○ Water Utilities ○ Public Works ○ Fire Service ○ Emergency Management ○ Law Enforcement ○ Planning and Development ○ Elections • Editing LGIM data <ul style="list-style-type: none"> ○ Working with Local Government COTS Applications

30. Clarify County roles/responsibilities for testing, data conversion, and setting-up of vendor-provided environments

In general, the county will be responsible for reviewing, providing comments, and approving all GIS deliverables. For data conversion, the County will be responsible for any data cleanup that is needed. The County will also be responsible for procuring any hardware and getting it stood up in the server room. Esri will install and configure the ArcGIS software proposed in this bid.

See answer to question 24 for more detail.

ESRI BAFO Clarification

32. After go-live, assuming the County remains up-to-date on maintenance, for how long will the Contractor provide no cost upgrades? Will the Contractor provide services to perform the upgrade under the maintenance agreement? What are limitations to future upgrades that the County needs to be aware of? Address these questions for all the solution components proposed.

Esri priced the work for the original installation. If the county stays current on maintenance, they are free to install upgrades for the software they have licensed. This is a pure COTS ArcGIS solution, and the standard upgrade procedures for our software can be followed.

43. The County anticipates all costs required to meet the objectives and to provide the functionality contained within the RFP have been identified and are included in proposed pricing. Vendor cost proposals should include any and all cost items required to deliver the functionality defined in the use cases, functional requirements, and technical requirements as described in the RFP documents. The vendor is responsible for noting specifically any assumptions for ancillary, miscellaneous or extended costs that are required to meet stated functionality. All noted costs to meet functional requirements will be aggregated and factored into a proposer's cost score.

Data cleanup costs were not included in the GIS proposal. It is assumed that the data is in a state that can be imported into the LGIM. If data cleanup is required, it will be the responsibility of the County.



Exhibit E MYGOVPAY/VIRTUAL PAY

1. MyGovPay/VirtualPay Licensing. Access to MyGovPay and/or Virtual Pay is hereby granted if Customer elects to use MyGovPay or VirtualPay, products of Tyler Technologies (*Powered by Persolvent*), designed for Citizen Users to use for processing online payments.

(a) Special MyGovPay/VirtualPay Definitions.

"Merchant Agreement" means the agreement between Customer and BCSW that provides for the Merchant Fees.

"Merchant Fees" means direct costs levied by Visa/Mastercard/Discover or other payment card companies for Interchange Fees, Dues, Assessments and Occurrence Fees, over which Tyler Technologies has no authority.

"MyGovPay" means the Product of Tyler Technologies that allows members of the public to pay for Customer's services with a credit or other payment card on the Customer's citizen-facing web portal.

"Persolvent" means the Payment Card Industry (PCI) compliant processing agent through which the EnerGov software passes credit card transactions.

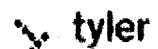
"Use Fees" means the Technology Fees, Authorization Fees and Program/Convenience Fees as listed in Use Fees Table in Section 2, titled *MyGovPay/VirtualPay*.

"VirtualPay" means the Product of Tyler Technologies that allows the Customer to accept and process citizen user's credit or other payment card using the EnerGov Software.

(b) Conditions of Use. If customer elects to use MyGovPay and/or VirtualPay the following terms apply:

- (1) Customer must apply for and agree to a Merchant Agreement with BCSW.
- (2) Customer agrees that Citizen Users will be subject to Use Fees as listed in Use Fees table in Section 2.
- (3) Customer agrees that Use Fees are separate from and independent of Merchant Fees.
- (4) Customer agrees that this Agreement does not represent any modification to Customer's Merchant Agreement with BCSA.
- (5) Customer agrees that Use Fees are for use on the MyGovPay/VirtualPay online system and will not be deposited or owed to Customer in any way.
- (6) Customer agrees that MyGovPay's and VirtualPay's ability to assess Use Fees is dictated by the Card Associations whose rules may change at any time and for any reason. If MyGovPay and/or VirtualPay, for any reason, are unable to process payments using Use Fees, Customer agrees that MyGovPay/VirtualPay reserves the right to negotiate a new pricing model with Customer for the continued use of MyGovPay and/or VirtualPay.

2. MyGovPay/VirtualPay Fees. Customer agrees that the Use Fees set forth on the following page will apply if Customer elects to use MyGovPay/VirtualPay.



Use Fees**EnerGov's MyGovPay (Online / card-not-present payments)****

	MyGovPay (Online Payments)	MyGovPay (Online Payments)
	Percentage Based Fee	+ Transaction Fee
Option 1: Government Entity Paid	2.79%	\$0.20
Option 2: Patron Paid	3.29%	N/A

****ACH processing is available for a fee of \$20 per month and \$0.30 per transaction.**

EnerGov's VirtualPay (retail card present)

	VirtualPay (Retail Payments)	Virtual Pay (Retail Payments)
	Percentage Based Fee	+ Transaction Fee
Option 1: Government Entity Paid	2.59%	\$0.15
Option 2: Patron Paid	2.99%	N/A

Patron Paid fees will be communicated as "Service Fees" to the cardholder, at the time of transaction. In the event that the average transaction amount is below \$30, we reserve the right to apply an additional \$0.20 service fee above the quoted rates above.

3. **Interactive Voice Response ("IVR").** If IVR is selected by Customer and included in the pricing, the following additional terms and conditions shall apply of this Agreement:

- (a) **Network Security.** Customer acknowledges that a third-party is used by Tyler Technologies to process IVR data. Customer's content will pass through and be stored on the third-party servers and will not be segregated or in a separate physical location from servers on which other customers' content is or will be transmitted or stored.
- (b) **Content.** Customer is responsible for the creation, editorial content, control, and all other aspects of content to be used solely in conjunction with the EnerGov Software.
- (c) **Lawful Purposes.** Customer shall not use the IVR system for any unlawful purpose.
- (d) **Critical Application.** Customer will not use the IVR system for any life-support application or other critical application where failure or potential failure of the IVR system can cause injury, harm, death, or other grave problems, including, without limitation, loss of aircraft control, hospital life-support system, and delays in getting medicate care or other emergency services.
- (e) **No Harmful Code.** Customer represents and warrants that no content designed to delete, disable,

deactivate, interfere with or otherwise harm any aspect of the IVR system now or in the future, shall be knowingly transmitted by Customer or Users.

(f) **IVR WARRANTY.** Except as expressly set forth in this Agreement, TYLER TECHNOLOGIES MAKES NO REPRESENTATION AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE FOR IVR.

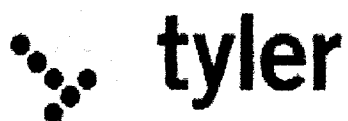


Exhibit F
Esri End User License Agreement

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(E204 06/13/2014)

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EXHIBIT 1
SCOPE OF USE
(E300 06/13/2014)

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(E300-1)

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 - b. Tele Atlas/TomTom data is subject to the terms of use at http://www.esri.com/media/Files/Pdfs/legal/pdfs/j9792-teleatlas_use_data.pdf.
3. *Data Appliance for ArcGIS*. Data provided with Data Appliance is subject to the following additional terms of use:
 - a. HERE data is subject to the terms of use at http://corporate.navteq.com/supplier_terms.html.
 - b. Tele Atlas/TomTom data is subject to the terms of use at http://www.esri.com/media/Files/Pdfs/legal/pdfs/j9792-teleatlas_use_data.pdf.
 - c. Data from i-cubed is subject to the terms of use at <http://www.esri.com/media/Files/Pdfs/legal/pdfs/j9946-icubed.pdf>.
 - d. BODC bathymetry data is subject to the terms of use found at https://www.bodc.ac.uk/data-online/delivery/gebcos/terms_of_use/.
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 - a. The Data is provided for Licensee's internal business use solely in connection with Licensee's authorized use of Software. Subject to Addendum 2, Note 10, Business Analyst Data, including derivative products (e.g., geocodes), are restricted for use only in conjunction with the respective Business Analyst extension. Location Analytics Data is restricted for use only in conjunction with Business Analyst Online API, Community Analyst API, and Location Analytics API. If Licensee orders a license for Esri Business Analyst or Business Analyst

- (Canadian Edition), or for Business Analyst Online API, Community Analyst API, and Location Analytics API, with a subset of the national dataset (i.e., Region, State, Local). Licensee may use only the licensed subset, not any other portion of the national dataset.
- b. Business Analyst Data provided with Business Analyst for Server may not be cached or downloaded by client applications and devices.
 - c. Infogroup data is subject to the following terms of use: "Users" means end users of Esri Software. Any use of the Infogroup database not expressly authorized in this License Agreement is strictly prohibited. Without limiting the generality of the foregoing, Users are expressly prohibited from: (i) sublicensing or reselling the Infogroup database; (ii) using or allowing third parties to use the Infogroup database for the purpose of compiling, enhancing, verifying, supplementing, adding to, or deleting from any mailing list, geographic or trade directories, business directories, classified directories, classified advertising, or other compilation of information that is sold, rented, published, furnished, or in any manner provided to a third party; (iii) using the Infogroup database in any service or product not specifically authorized in this License Agreement or offering it through any third party; (iv) disassembling, decompiling, reverse engineering, modifying, or otherwise altering the Infogroup database or any part thereof without Infogroup's prior written consent, such consent to be granted or withheld at Infogroup's sole discretion; or (v) using the Infogroup database for any direct marketing purposes.
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 - f. MBR Data: Users are prohibited from (i) using MBR Data, including, without limitation, European demographic data, consumer demand data, and postal and geographic boundaries, for the purpose of compiling, enhancing, verifying, supplementing, adding to, or deleting from any database or other compilation of information that is sold, rented, published, furnished, or in any manner provided to a third party or (ii) modifying, or otherwise altering MBR Data without MBR's prior written consent, such consent to be granted or withheld at MBR's sole discretion.
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- **Single Use**: Permits access by a single user to access the data for development or internal use on a desktop computer or server. No Internet access is permitted.
 - **Internal Site/Server—Known User**: Permits access by named (known) users for Licensee's internal use. Web access by those named users is permitted.
 - **Public website (noncommercial)—Constituent-Served Model**: Permits a municipal government Licensee to use the Data in an externally facing Value-Added Application serving a defined population, provided Licensee does not generate revenue from such use.
 - **Public website (commercial) Known User**: Permits Licensee to use the Data in an externally facing Value-Added Application for use by named users and to generate revenue from such Value-Added Application.
 - **Public website (commercial) Anonymous User**: Permits Licensee to use the Data in an externally facing Value-Added Application for general use and to generate revenue from such Value-Added Application.
6. *Data and Maps for ArcGIS*. The Data is available to licensed users of ArcGIS for Desktop, ArcGIS for Server, and ArcGIS Online. Data and Maps for ArcGIS is provided for use solely in conjunction with authorized use of ArcGIS for Desktop, ArcGIS for Server, and ArcGIS Online.
- a. Licensee may redistribute the Data as described in the Redistribution Rights Matrix available at <http://www.esri.com/legal/redistribution-rights>, in the Help system, or in supporting metadata files, subject to the specific attribution descriptions and requirements for the dataset accessed.
 - b. StreetMap Data may be used for mapping, geocoding, and routing purposes but is not licensed for dynamic routing purposes. For instance, StreetMap USA may not be used to alert a user about upcoming maneuvers (such as warning of an upcoming turn) or to calculate an alternate route if a turn is missed.

7. Reserved.
8. Reserved.
9. *MapStudio Data* Use of this Data is subject to the following terms and conditions:
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 - c. Data from i-cubed is subject to the terms of use at <http://www.esri.com/media/Files/Pdfs/legal/pdfs/0792-icubed.pdf>.
 - d. D&B Data: May not be used for direct mailing or direct marketing purposes.
10. Licensee may include Data in hard-copy or read-only format ("Outputs") in presentation packages, marketing studies, or other reports or documents prepared for third parties. Licensee shall not resell or otherwise externally distribute Outputs in stand-alone form.
11. *ArcGIS for Transportation Analytics-- HERE traffic data option.* This online data service is available as an option for use exclusively with ArcGIS for Transportation Analytics. Use of this data is subject to the following terms and conditions:
 - a. HERE traffic data is subject to the terms of use at http://corporate.navteq.com/supplier_terms.html.
 - b. No automatic routing or rerouting based on traffic conditions is permitted without the Navigation add-on.
 - c. HERE traffic data may not be archived and may be delivered only for end users' personal, near-term use, not to exceed one (1) twenty-four (24)-hour period.
 - d. HERE traffic data may not be used to display or broadcast in any FM-AM/HD radio broadcast or television broadcast or through any RDS delivery method.
 - e. HERE traffic data may not be used with or incorporated into any traffic system that provides voice traffic reports to inbound callers.
 - f. HERE traffic data may not be used to develop or commercially make available a text-to-voice e-mail alert or message or voice mail application using any portion of HERE traffic data.

**ADDENDUM 3
ONLINE SERVICES ADDENDUM
(E300-3)**

This Online Services Addendum ("Addendum 3") sets forth the terms of Licensee's use of Online Services and includes the Licensee's existing master license agreement, if any, or the License Agreement found at <http://www.esri.com/legal/software-license> (as applicable, the "License Agreement"), which is incorporated by reference. This Addendum 3 takes precedence over conflicting General License Terms and Conditions of the License Agreement. Esri reserves the right to update the terms from time to time. Section 1 of this Addendum 3 contains terms applicable to all Online Services; Section 2 contains nonunion terms applicable to specific Online Services.

SECTION 1—COMMON TERMS OF USE OF ONLINE SERVICES

ARTICLE 1—DEFINITIONS

In addition to the definitions provided in the License Agreement, the following definitions apply to this Addendum 3:

- a. "Anonymous Users" refers to anyone who has public access to any part of the Licensee's Content or Value-Added Applications, which Licensee has published through the use of the Sharing Tools, included with Licensee's licensed use of the Software or Online Services, as further described in Section 2 of this Addendum.
- b. "API" means application programming interface.
- c. "App Login Credential" means a system-generated application login and associated password, provided by registering a Value-Added Application with ArcGIS Online, which can be embedded in a Value-Added Application to enable the Value-Added Application to access and use Online Services.
- d. "ArcGIS Website" means <http://www.arcgis.com> and any related or successor websites.
- e. "Content" means Data, images, photographs, animations, video, audio, text, maps, databases, data models, spreadsheets, user interfaces, software applications, and Developer Tools.
- f. "Developer Tools" means software development kits (SDKs), APIs, software libraries, code samples, and other resources.
- g. "Licensee's Content" means any Content that Licensee, a Licensee's Named User, or any other user submits to Esri in connection with Licensee's use of the Online Services, any results derived from the use of Licensee's Content with Online Services, and any Value-Added Applications Licensee builds with Developer Tools and deploys with Online Services. Licensee's Content excludes any feedback, suggestions, or requests for Product improvements that Licensee provides to Esri.
- h. "Named User(s)" means individuals to whom Licensee specifically enables private access to Online Services and Value-Added Applications through Licensee's Online Services account. Named Users can be anyone whom Licensee authorizes to access Online Services, but only for the exclusive benefit of Licensee, for example, Licensee's employees, agents, consultants, or contractors. For Education Plan accounts, Named Users may include registered students. No other third parties may be Named Users. Named Users have private access to features of Online Services that are not publicly accessible to Anonymous Users. Named Users have unique, individual login credentials.
- i. "Online Content" means Content hosted or provided by Esri as part of Online Services, including any Map Services, Task Services, Image Services, and Developer Tools and excluding Content provided by third parties that Licensee accesses through Online Services.
- j. "Service Components" means each of the following: Online Services, Online Content, ArcGIS Website, Developer Tools, Documentation, or related materials.
- k. "Sharing Tools" means publishing capabilities included with Online Services and ArcGIS Website that allow Licensee to make Licensee's Content and Value-Added Applications available to third parties and/or Anonymous Users.
- l. "Value-Added Application" means an application developed by Licensee for use in conjunction with the authorized use of any Software, Data, or Online Services.
- m. "Web Services" as used under Licensee's existing signed license agreement, if any, means Online Services and any Content delivered by such Online Services.

ARTICLE 2—USE OF ONLINE SERVICES

2.1 License to Online Services. Esri grants Licensee a personal, nonexclusive, nontransferable, worldwide license to access and use Online Services as set forth in the applicable Ordering Documents (i) for which the applicable license fees have been paid (if required), (ii) for Licensee's own internal use by Licensee and Licensee's Named Users or Anonymous Users (if applicable), and (iii) in accordance with this License Agreement and the licensed configuration on file as authorized by Esri.

2.2 Provision of Subscription Online Services. For subscription Online Services, Esri will

- a. Provide Online Services to Licensee in accordance with the Documentation;
- b. Provide customer support in accordance with Esri's standard customer support policies and any additional support Licensee may purchase; and
- c. Use commercially reasonable efforts to ensure that Online Services will not transmit to Licensee any Malicious Code, provided Esri is not responsible for Malicious Code that was introduced to Online Services through Licensee's account or through third-party Content.

2.3 Licensee's Responsibilities.

- a. Licensee shall be responsible for Named Users' compliance with this Agreement. Licensee and Licensee's Named Users or Anonymous Users (if applicable) are the only persons authorized to access Online Services through Licensee's accounts. Named Users' login credentials are for designated Named Users only and may not be shared among multiple individuals. Named Users' login credentials may be reassigned to new Named Users if the former users no longer require access to Online Services.
- b. Licensee and Licensee's Named Users are responsible for maintaining the confidentiality of Authorization Codes, Access Codes, Named Users' login credentials, or any other method that is provided that enables access to Online Services and for ensuring that unauthorized third parties do not access Licensee's account. Licensee will immediately notify Esri if Licensee becomes aware of any unauthorized use of Licensee's account or any other breach of security.
- c. Licensee is solely responsible for the development and operation of Licensee's Content and Value-Added Applications and the manner in which it chooses to allow or provide use, access, transfer, transmission, maintenance, or processing ability to or by others, including any use and access to Products, and any subsequent end user, end use, and destination restrictions issued by the US government and other governments.

2.4 Prohibited Uses of the Online Services. In addition to the prohibited uses or except as provided under the License Agreement, Licensee shall not (i) attempt to gain unauthorized access to the Online Services or assist others to do so; (ii) use Online Services for spamming, to transmit junk e-mail or offensive or defamatory material, or for stalking or making threats of physical harm; (iii) use Online Services to store or transmit software viruses, worms, time bombs, Trojan horses, or any other computer code, files, or programs designed to interrupt, destroy, or limit the functionality of any computer software, hardware, or telecommunications equipment ("Malicious Code"); (iv) mirror, reformat, or display Online Services in an attempt to mirror and/or make commercial use of Online Services except to the degree that Online Services directly enable such functionality; (v) share the client-side data cache derived from Online Content with other licensed end users or third parties; (vi) distribute the client-side data cache derived from Online Services to third parties; (vii) manually or systematically collect or scrape (screen or web scraping) Content from Online Services; (viii) use ArcGIS Online Map Services, Geocoding Services, or Routing Services in communication with any in-vehicle navigation system installed in a vehicle (this does not include portable navigation devices) or that provides real-time, dynamic routing to any device (for instance, these services may not be used to alert a user about upcoming maneuvers such as warning of an upcoming turn or to calculate an alternate route if a turn is missed); or (ix) incorporate any portion of Online Services into a commercial product or service unless the commercial product adds material functionality to Online Services. Licensee shall not use Online Services to (a) infringe or misappropriate any third-party proprietary rights or privacy rights; (b) process, store, transmit, or enable access to any information, data, or technology controlled for export under the International Traffic in Arms (ITAR) regulations; (c) violate any export law; or (d) store or process Content online that is unclassified controlled technical information (UCTI) under DFARS 204.73, or is protected health information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA). Licensee shall not attempt to (a) probe, scan, or test the vulnerability of the Online Services or to breach any security or authentication measures used by the Online Services; or (b) benchmark the availability, performance, or functionality of Online Services for competitive purposes. Licensee is responsible for any fines, penalties, or claims against Esri, including reasonable attorneys' fees, arising out of Licensee's noncompliance with any of the foregoing prohibitions.

2.5 Evaluations. Esri may provide licenses to use certain Services for Licensee's internal evaluation purposes. Such licenses continue until the stated evaluation period expires or until Licensee purchases a subscription, whichever occurs first. IF LICENSEE DOES NOT CONVERT LICENSEE'S EVALUATION LICENSE TO A SUBSCRIPTION PRIOR TO EXPIRATION OF THE EVALUATION TERM, ANY CONTENT AND CUSTOMIZATIONS THAT LICENSEE UPLOADED OR MADE DURING THE EVALUATION TERM WILL BE PERMANENTLY LOST. IF LICENSEE DOES NOT WISH TO PURCHASE A SUBSCRIPTION, LICENSEE MUST EXPORT SUCH CONTENT BEFORE THE END OF LICENSEE'S EVALUATION PERIOD.

2.6 Modifications of Online Services. Esri reserves the right to alter or modify Online Service(s) and related APIs at any time. If reasonable under the circumstances, Esri will provide thirty (30) days' prior notice of any material alterations.

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2.8 If any modification, discontinuation, or deprecation of Online Service(s) causes a material, adverse impact to Licensee's operations, Esri may at its sole discretion attempt to repair, correct, or provide a workaround for Online Services. If a viable solution is not commercially reasonable, Licensee may cancel its subscription to Online Services, and Esri will issue a prorated refund.

2.9 Attributions. Licensee is not permitted to remove any Esri or Esri's licensors' logos or other attribution associated with any use of ArcGIS Online Services.

ARTICLE 3—TERM AND TERMINATION

The following supplements Article 5—Term and Termination of the License Agreement:

3.1 Term of Subscriptions. The term of any subscription will be provided in the Ordering Document under which it is purchased or in the Online Services description referenced therein.

3.2 Subscription Rate Changes. Monthly subscription rates may be increased upon thirty (30) days' notice. Esri may increase rates for subscriptions with a term greater than one (1) month by notifying Licensee at least sixty (60) days prior to expiration of the then-current subscription term.

3.3 Service Interruption. Licensee's access (including access on behalf of Licensee's customers) to and use of Online Service(s) may be temporarily unavailable, without prior notice, for any unanticipated or unscheduled downtime or unavailability of all or any portion of Online Services, including system failure or other events beyond the reasonable control of Esri or its affiliates.

3.4 Service Suspension. Esri and its affiliates shall be entitled, without any liability to Licensee, to suspend access to any portion or all of Online Services at any time on a service-wide basis (a) if Licensee breaches the License Agreement; (b) if Licensee exceeds usage limits and fails to purchase additional license capacity sufficient to support Licensee's continued use of Online Services as described in Article 5 of this Addendum; (c) if there is reason to believe that Licensee's use of Online Service(s) will adversely affect the integrity, functionality, or usability of the Online Service(s); (d) if Esri and its licensors may incur liability by not suspending Licensee's account; (e) for scheduled downtime to conduct maintenance or make modifications to Online Service(s); (f) in the event of a threat or attack on Online Service(s) (including a denial-of-service attack) or other event that may create a risk to the applicable part of Online Services; or (g) in the event that Esri or its affiliates determine that Online Services (or portions thereof) are prohibited by law or otherwise that it is necessary or prudent to do so for legal or regulatory reasons. If feasible under these circumstances, Licensee will be notified of any Service Suspension beforehand and allowed reasonable opportunity to take remedial action.

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ARTICLE 5—LIMITS ON USE OF ONLINE SERVICES; SERVICE CREDITS

Esri may establish limits on the Online Services available to Licensee. These limits may be controlled through Service Credits. Service Credits are used to measure the consumption of ArcGIS Online services made available through Licensee's account. The maximum Service Credits provided with Licensee's ArcGIS Online account will be addressed in the applicable Ordering Document. Esri will notify Licensee's account administrator when Licensee's Service consumption reaches approximately seventy-five percent (75%) of the Service Credits allocated to Licensee through Licensee's subscription. Esri reserves the right to suspend Licensee's account when consumption reaches one hundred percent (100%) of the Service Credits allocated to Licensee's subscription. Licensee's access to the account will be restored immediately upon the completion of Licensee's purchase transaction for additional Service Credits for the subscription account.

ARTICLE 6—ONLINE CONTENT; THIRD-PARTY CONTENT AND WEBSITES

6.1 Online Content. ArcGIS Online Data is included as a component of Online Services and is licensed under the terms of the License Agreement.

6.2 Third-Party Content and Websites. Online Services and ArcGIS Website may reference or link to third-party websites or enable Licensee to access, view, use, and download third-party Content. This Agreement does not address Licensee's use of third-party Content, and Licensee may be required to agree to different or additional terms in order to use third-party Content. Esri does not control these websites and is not responsible for their operation, content, or availability; Licensee's use of any third-party websites and third-party Content is *as is*, without warranty, and at Licensee's sole risk. The presence of any links or references in Online Services to third-party websites and resources does not imply an endorsement, affiliation, or sponsorship of any kind.

SECTION 2—TERMS OF USE FOR SPECIFIC ONLINE SERVICES

The following table is a list of Esri Products that have specific Terms of Use in addition to the general Terms of Use as set forth in the General License Terms and Conditions of the License Agreement. Additional Terms of Use are listed immediately below this table and are referenced by number(s), shown in parentheses, immediately following each Product name in the following table (in some cases, the Additional Terms of Use referenced may be found in a separate Addendum, as noted):

<ul style="list-style-type: none"> • ArcGIS Online (1; 2: Addendum 2, Note 1, Addendum 2, Note 6) • Esri Business Analyst Online (3: Addendum 2, Note 1, Addendum 2, Note 4) • Business Analyst Online Mobile (3: Addendum 2, Note 1, Addendum 2, Note 4) • Esri Business Analyst Online API for Adobe Flex, Microsoft Silverlight, SOAP, and REST (5: Addendum 2, Note 1; Addendum 2, Note 4) • Community Analyst (3: Addendum 2, Note 1; Addendum 2, Note 4) 	<ul style="list-style-type: none"> • Esri Community Analyst API for Adobe Flex, Microsoft Silverlight, SOAP, and REST (5: Addendum 2, Note 1; Addendum 2, Note 4) • Esri Location Analytics API for Adobe Flex, Microsoft Silverlight, SOAP, and REST (5: Addendum 2, Note 1; Addendum 2, Note 4) • Esri Redistricting Online (Addendum 2, Note 1) • Esri MapStudio (4: Addendum 2, Note 1; Addendum 2, Note 9)
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Notes:

- If you do not license any of the Products in the table above, these Additional Terms of Use do not apply to you.
- Additional Terms of Use for Products ONLY APPLY to the Products that reference them by number in the table above.

Additional Terms of Use for Products listed above:

I. In addition to the common terms of use of Online Services:

- a. Licensee may use Licensee's Esri Online Services account to build a Value-Added Application(s) for Licensee's internal use.
- b. Licensee may also provide access to Licensee's Value-Added Application(s) to third parties, subject to the following terms:
 - i. Licensee may allow Anonymous Users to access Licensee's Value-Added Application(s).
 - ii. Licensee shall not add third parties as Named Users to Licensee's ArcGIS Online account for the purpose of allowing third parties to access Licensee's Value-Added Application(s). This restriction does not apply to third parties included within the definition of Named Users.
 - iii. Licensee shall not provide a third party with access to ArcGIS Online Services enabled through Licensee's ArcGIS Online account other than through Licensee's Value-Added Application(s). This restriction does not apply to third parties included within the definition of Named Users.
 - iv. Licensee is responsible for any fees accrued through the use of Licensee's ArcGIS Online account by third parties accessing Licensee's Value-Added Application(s). This includes Service Credits required to support third-party Online Services usage and any additional subscription fees for Online Services as required.
 - v. Licensee is solely responsible for providing technical support for Licensee's Value-Added Application(s).
 - vi. Licensee will restrict third-party use of Online Services as required by the terms of this Agreement.
 - vii. Licensee may not remove or obscure any trademarks or logos that would normally be displayed through the use of the Online Services without written permission. If Licensee is using non-Esri application development tools to build applications that access Esri's Online Services, Licensee must include attribution acknowledging that its application is using Online Services provided by Esri. Guidelines are provided in the Documentation.
 - viii. Licensee may not embed a Named User credential into a Value-Added Application. For all ArcGIS Online Plan accounts other than Public Plan accounts and ArcGIS for Developer Plan accounts, an App Login Credential may only be embedded into Value-Added Applications that are used to provide public, anonymous access to ArcGIS Online. Licensee may not embed or use ArcGIS Online App Login Credentials in Value-Added Applications for internal use. Value-Added Applications used internally require Named User login credentials.

- c. For ArcGIS Online ELA, ArcGIS Online for Organizations, and paid Developer Plan accounts:
 - i. Licensee is also permitted to:
 - (1) Charge an additional fee to third parties to access Licensee's Value-Added Application(s), subject to the terms of this License Agreement; and
 - (2) Transfer Licensee's Value-Added Application(s) to a third party's ArcGIS Online account, subject to the following:
 - (a) Licensee may charge third parties a fee for Licensee's Value-Added Application(s).
 - (b) Licensee is not obligated to provide technical support for the third party's general use of its ArcGIS Online account not related to Licensee's Value-Added Application(s).
 - (c) Licensee is not responsible for any fees accrued through the third party's use of Licensee's Value-Added Application(s) that have been transferred to or implemented on the third party's ArcGIS Online account.
 - (d) Licensee is not permitted to invite licensees of an ArcGIS Online Public Plan to participate in private groups. This restriction also applies to licensees of Education Plan accounts and NPO/NGO Plan accounts.
- d. For ArcGIS Online Public Plan accounts, Development and Testing Plan accounts, Education Plan accounts, and NPO/NGO use of ArcGIS Online for Organizations accounts: Licensee is not permitted to charge an additional fee to third parties to access Licensee's Value-Added Application(s) or generate more than incidental advertising revenue as a consequence of the deployment or use of the Value-Added Application(s). Charging a fee to access Licensee's Value-Added Application(s) or generating more than incidental advertising revenue requires an ArcGIS Online ELA, ArcGIS Online for Organizations, or paid Developer Plan account.
- e. For ArcGIS Online Public Plan accounts:
 - i. Public Plan accounts are licensed for the personal use of an individual. Any use of Public Plan accounts by an individual for the benefit of a for-profit business or a government agency is prohibited.
 - This restriction does not apply to educational institutions when used for teaching purposes only, qualified NGO/NPO organizations, and press or media organizations. Individuals affiliated with these specific types of organization are permitted to use ArcGIS Online Public Plan accounts for the benefit of their affiliated organization(s).
 - ii. Public Plan account Licensees are not permitted to create private groups or participate in any private group created by licensees of ArcGIS Online for Organizations, Education, NGO/NPO, or ELA Plans.
- f. For ArcGIS Online Development and Testing Plan accounts:
 - i. Subject to the terms of this License Agreement, Licensee is permitted to:
 - (1) Allow third parties to access Licensee's Value-Added Application(s) powered by their Development and Testing Plan account, but only if the Value-Added Application(s) is published for public access and is not used for the benefit of a for-profit business or government agency.
 - This restriction does not apply to educational institutions when used for teaching purposes only, qualified NGO/NPO organizations, and press or media organizations. Individuals affiliated with these specific types of organizations are permitted to use ArcGIS Online Development and Testing Plan accounts for the benefit of their affiliated organization(s).
 - ii. Development and Testing Plan account licensees are not permitted to create private groups or participate in any private group created by licensees of ArcGIS Online for Organizations, Education, NGO/NPO, or ELA Plans.

- g. For ArcGIS Online paid Developer Plan accounts or Development and Testing Plan accounts.
 - i. Licensee is limited to one million (1,000,000) basemap and one million (1,000,000) geospatial Transactions per month in conjunction with Licensee's account. "Transaction" is defined in the Documentation at ArcGIS Resources at <http://links.esri.com/agol/transactiondef>.
 - ii. Licensee is not permitted to be the licensee of an ArcGIS Online account for or on behalf of a third party.
 - This restriction does not apply to education institutions that are permitted to be licensees of ArcGIS Online Public Plan accounts on behalf of registered students of the education institution for teaching purposes only. Education institutions are also permitted to provide access to a single ArcGIS Online Public Plan account to more than one (1) registered student when used for teaching purposes only.
 - j. The terms "Online ELA account," "Organizations Plan account," "Developer Plan account," "Public Plan account," "Development and Testing Plan account," and "Education Plan account" refer to different types of ArcGIS Online accounts.
- 2. Terms of Use for ArcGIS Online Services:
 - a. World Geocoding Service: Licensee may not store the geocoded results generated by the service without an ArcGIS Online account.
 - b. Infographics Service: Licensee may use the data accessible through this service for display purposes only. Licensee is prohibited from saving any data accessible through this service.
- 3. Licensee may not display or post any combination of more than one hundred (100) Esri Business Analyst Online or Community Analyst Reports and maps on Licensee's external websites.
- 4. Licensee may create, publicly display, and distribute maps in hard copy and static electronic format for news-reporting purposes, subject to any restrictions for ArcGIS Online Data set forth in Addendum 2, Note 1.
- 5. Licensee may develop Value-Added Applications that use Business Analyst Online API, Community Analyst API, or Location Analytics API to access, query, create, display, and redistribute Reports and resultant static, electronic maps to end user(s) of Licensee's Value-Added Applications. If Licensee has an anonymous user subscription, Licensee may provide access to Licensee's Value-Added Application(s) to anonymous end users, limited to the number of Reports Licensee has paid for. End user(s) of Licensee's Value-Added Applications may use Reports and maps for internal purposes only and not for further redistribution. "Report(s)" means any formatted output created by the Business Analyst Online API, Community Analyst API, or Location Analytics API Products, which includes PDF, CSV, Excel, HTML, and XML formats. Licensee shall not redistribute any Data in vector formats. Licensee and Licensee's end users are prohibited from using Reports or other output generated by Business Analyst Online API, Community Analyst API, or Location Analytics API as a substitute for Business Analyst Online API, Community Analyst API, or Location Analytics API, including, but not limited to, (i) combining and including such output in one or more files or databases and (ii) making such output available through a multiuser computer application. For clarity, end users may save Reports locally for their own internal use. For publicly facing Value-Added Applications developed with Business Analyst Online API (Canadian Edition), Reports and Data may be produced or exported in static formats only (e.g., JPEG, PDF); Licensee must ensure that Licensee's Value-Added Application does not allow Canadian Edition Reports to be exported as CSV, XML, HTML, or XLS files or in any other format that readily enables extraction or manipulation of the file's contents. Licensee is solely responsible for providing technical support for Licensee's Value-Added Application(s).

ADDENDUM 4 LIMITED USE PROGRAMS (E300-4)

This Limited Use Programs Addendum ("Addendum 4") applies to any Licensee that has been qualified by Esri or its authorized distributor to participate in any of the programs described herein. This Addendum 4 includes the Licensee's existing master license agreement, if any, or the License Agreement found at <http://www.esri.com/legal/software-license.htm> as applicable, the "License Agreement"), which is incorporated by reference. This Addendum 4 takes precedence over conflicting terms of the License Agreement. Esri reserves the right to update the terms from time to time.

• Educational Programs (1)	• Home Use Program (3)
• Grant Programs (2)	• Other Esri Limited Use Programs (4)

Notes

1. *Educational Programs*: Licensee agrees to use Products solely for educational purposes during the educational use Term. Licensee shall not use Products for any administrative use unless Licensee has acquired an administrative use Term License. Licensee shall not use Products for revenue-generating or for-profit purposes.
2. *Grant Programs*: Licensee may use Products only for Noncommercial purposes. Except for cost recovery of using and operating the Products, Licensee shall not use Products for revenue-generating or for-profit purposes.
3. *ArcGIS for Home Use Program*
 - a. All ArcGIS for Home Use Program Products are provided as Term Licenses and are identified on Esri's Home Use Program website found at <http://www.esri.com/software/arcgis/arcgis-for-home> or Licensee's authorized distributor's website.
 - b. Esri grants to Licensee a personal, nonexclusive, nontransferable, Single Use License, without the authorization to install or use a second copy, solely to use the Products provided under the ArcGIS for Home Use Program as set forth in the applicable Ordering Documents (i) for which the applicable license fees have been paid, (ii) for Licensee's own Noncommercial internal use, (iii) in accordance with this License Agreement and the configuration ordered by Licensee or as authorized by Esri or its authorized distributor, and (iv) for a period of twelve (12) months unless terminated earlier in accordance with the License Agreement. "Noncommercial" means use in a personal or individual capacity that (i) is not compensated in any fashion; (ii) is not intended to produce any works for commercial use or compensation; (iii) is not intended to provide a commercial service, and (iv) is neither conducted nor funded by any person or entity engaged in the commercial use, application, or exploitation of works similar to the licensed Products.
 - c. **Installation Support.** Installation Support for a period of ninety (90) days is included with ArcGIS for Home Use. As discussed further on the Esri or authorized distributor's website, Esri provides technical support in response to specific inquiries. Installation Support will apply only to unmodified Software. Software is provided only for standard hardware platforms and operating systems supported by Esri as described in the Software Documentation. Esri is not responsible for making or arranging for updates to interfaces for nonstandard devices or custom applications.

Esri Installation Support will be provided in compliance with the Esri ArcGIS for Home Use Installation Support document on the Esri website at <http://www.esri.com/media/Files/Pdfs/legal/ndts/home-use-installation-support.pdf>. Esri supports users solely with the installation of Esri Software. Esri's Support website is at <http://support.esri.com/en/support>. Support provided by an authorized distributor will be in accordance with the distributor's technical support program terms and conditions.
4. *Other Esri Limited Use Programs*: If Licensee acquires Products under any limited use program not listed above, Licensee's use of the Products may be subject to the terms set forth in the applicable launching page or enrollment form or as described on Esri's website in addition to the nonconflicting terms of this Addendum 4. All such program terms are incorporated herein by reference.



Exhibit G
Sample Project Plan with Estimated Project Schedule

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Sample Project Plan with Estimated Project Schedule

C5823 Page No. 152

County of MAUI, HI		Task Name	Duration	% Complete	Start	Finish	Resource Names
1		Stage 0 - Software Delivery	1 day	0%	Mon 8/17/15	Mon 8/17/15	
2		Energov Software Delivered / Made Available for Download	1 day	0%	Mon 8/17/15	Mon 8/17/15	IT Implementation
3		Stage 1 PFI	34 days?	0%	Mon 10/5/15	Mon 11/20/15	
4		Conduct Planning/Initiation Phone Call - MAUI County, Tyler Technologies and ESRI	25 days	0%	Mon 10/5/15	Fri 11/6/15	ESRI, MAUI County, IT Implementation
5		Assign Project Team Members - MAUI County	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
6		Assign Project Team Members - Tyler	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
7		Assign Project Team Members - ESRI	25 days	0%	Mon 10/5/15	Fri 11/6/15	ESRI
8		Provide/Assign facilities for Tyler on-site activities	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
9		Identify non-working days (i.e. vacations, holidays, etc.)	25 days	0%	Mon 10/5/15	Fri 11/6/15	ESRI, MAUI County, IT Implementation
10		On-Site Project Team Fundamentals Training	15 days	0%	Mon 10/12/15	Fri 10/30/15	IT Training
11		Procure and configure necessary hardware, non- Energov systems software, and networking	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
12		Deliver Process Collection Templates	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
13		Guide City on completion of Templates	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
14		Return Process Collection Templates	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
15		Identify Case Types	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
16		Create SharePoint Site	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
17		Work toward delivering Project Status Report Template	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
18		Work toward delivering Sample Signoff Form	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
19		Deliver and review Data Conversion Template Database (DCT-DB), ERTs, and usage documentation	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation
20		Deliver Integration Test Environment (as an exact replica of production system)	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
21		Return Project Planning & Initiation Sign Off	25 days	0%	Mon 10/5/15	Fri 11/6/15	
22		Amend project scope/SOW as needed	25 days	0%	Mon 10/5/15	Fri 11/6/15	
23		Project Plan	25 days	0%	Mon 10/5/15	Fri 11/6/15	
24		Develop draft project plan (including ESRI and Energov roles)	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation, MAUI County, ESRI
25		Review draft project plan and provide feedback	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
26		Revise and provide finalized project plan	25 days	0%	Mon 10/5/15	Fri 11/6/15	IT Implementation, ESRI
27		Review and Accept finalized project plan	25 days	0%	Mon 10/5/15	Fri 11/6/15	MAUI County
28		P & I Stage Sign Off	9 days?	0%	Mon 11/9/15	Mon 11/30/15	IT Implementation, MAUI County
29		Provide P & I Sign Off to MAUI County	5 days	0%	Mon 11/9/15	Mon 11/16/15	IT Implementation
30		Review and P & I Define Sign Off	4 days	0%	Tue 11/17/15	Fri 11/20/15	MAUI County
31		Deliver signed P & I sign off to Tyler	9 days	0%	Mon 11/30/15	Mon 11/30/15	MAUI County
32			1 day?	0%	Mon 11/9/15	Mon 11/9/15	
33		Stage 2 Assess & Define	88 days	0%	Mon 11/30/15	Wed 4/13/16	
34		ESRI Task 2	24 days	0%	Mon 11/30/15	Thu 1/14/16	
35		GIS Vision and Requirements Validation	24 days	0%	Mon 11/30/15	Thu 1/14/16	ESRI
36		Identify and document project risks and resolutions	60 days	0%	Mon 11/30/15	Tue 3/9/16	IT Implementation
37		Identify and Scope any custom programming - NA	60 days	0%	Mon 11/30/15	Tue 3/9/16	IT Implementation
38		Assess integration requirements and provide final costing estimates	60 days	0%	Mon 11/30/15	Tue 3/9/16	IT Implementation
39		Legacy Data	50 days	0%	Mon 11/30/15	Tue 2/23/16	
40		Deliver legacy data samples	20 days	0%	Mon 11/30/15	Fri 1/8/16	MAUI County
41		Provide updated legacy data estimates	25 days	0%	Mon 1/11/16	Tue 2/16/16	MAUI County
42		Provide appropriate feedback related to legacy data for MAUI County	5 days	0%	Wed 2/17/16	Tue 2/23/16	IT Data Serv
43		Approve workflows to be implemented	5 days	0%	Mon 11/30/15	Fri 12/4/15	MAUI County
44		Explain GIS history w/inter to Customer	45 days	0%	Mon 11/30/15	Tue 2/16/16	IT Implementation
45		Offer best GIS practices to Customer	45 days	0%	Mon 11/30/15	Tue 2/16/16	IT Implementation, ESRI
46		On-Site: Assess and Define "to be" Business Case Transactions and Geo-Rules	15 days	0%	Mon 12/7/15	Fri 12/18/15	
47		Assess and Define Business Case Transactions 1 - 25	5 days	0%	Mon 12/7/15	Fri 12/18/15	IT Implementation
48		Assess and Define Business Case Transactions 26 - 50	5 days	0%	Mon 12/14/15	Fri 12/18/15	IT Implementation
49		Assess and Define Business Case Transactions 51 - 75	5 days	0%	Mon 12/14/15	Fri 12/18/15	IT Implementation
50		Assess and Define Business Case Transactions 76 - 100	5 days	0%	Mon 1/4/16	Fri 1/8/16	IT Implementation
51		Assess and Define Geo Rules 1 - 30	5 days	0%	Mon 1/4/16	Fri 1/8/16	IT Implementation

C5823

Sample Project Plan with Estimated Project Schedule

County of Maui, HI									
ID	Task Mode	Task Name	Duration	% Complete	Start	Finish	Resource Names		
53		ES&I Task 3 - System Architecture Design	33 days	0%	Mon 2/29/16	Wed 4/13/16			
54		System Architecture Design Workshop	5 days	0%	Mon 2/29/16	Fri 3/4/16	ES&I		
55		System Architecture Design Document	28 days	0%	Mon 3/7/16	Wed 4/13/16	ES&I, MAUI County		
56		Develop Project Definition Documents (PDDs) 1 - 50	34 days	0%	Mon 3/7/16	Fri 5/12/16	MAUI County		
57		Develop PDDs for Business Case Transactions 1 - 50	9 days	0%	Mon 3/7/16	Fri 3/12/16	IT Implementation		
58		Review PDDs for Business Case Transactions 1 - 50 and provide feedback	5 days	0%	Mon 3/29/16	Fri 3/29/16	IT Implementation, MAUI County		
59		Revise PDDs for Business Case Transactions 1 - 50	5 days	0%	Mon 3/29/16	Fri 3/29/16	IT Implementation		
60		Final Review and revisions of PDDs for Business Case Transactions 1 - 50	5 days	0%	Mon 3/28/16	Fri 3/12/16	MAUI County		
61		Develop Project Definition Documents (PDDs) 76 - 100	24 days	0%	Mon 3/15/16	Fri 3/18/16	MAUI County		
62		Develop PDDs for Business Case Transactions 76 - 100	10 days	0%	Mon 2/15/16	Fri 2/26/16	IT Implementation		
63		Review PDDs for Business Case Transactions 76 - 100 and provide feedback	5 days	0%	Mon 2/28/16	Fri 3/4/16	IT Implementation, MAUI County		
64		Revise PDDs for Business Case Transactions 76 - 100	5 days	0%	Mon 3/7/16	Fri 3/12/16	IT Implementation		
65		Final Review and revisions of PDDs for Business Case Transactions 76 - 100	5 days	0%	Mon 3/14/16	Fri 3/18/16	MAUI County		
66		Geo-Rule Documentation	15 days	0%	Mon 2/28/16	Fri 3/18/16			
67		Develop 30 Geo-Rule Definition Documents	5 days	0%	Mon 2/28/16	Fri 3/4/16	IT Implementation		
68		Review 30 Geo-Rule Definition Documents	2.5 days	0%	Mon 3/7/16	Wed 3/8/16	IT Implementation, MAUI County		
69		Revise 30 Geo-Rule Definition Documents	2.5 days	0%	Wed 3/9/16	Fri 3/11/16	IT Implementation		
70		Final Review and revisions of 30 Geo-Rule Definition Documents	5 days	0%	Mon 3/14/16	Fri 3/18/16	MAUI County		
71		Assess and Define Deliverables	1.5 days	0%	Mon 3/21/16	Tue 3/22/16			
72		Approved Project Definition Documents 1 - 100	0.5 days	0%	Mon 3/21/16	Mon 3/21/16	MAUI County		
73		Approved Geo-Rule Definition Documents 1 - 30	0.5 days	0%	Mon 3/21/16	Mon 3/21/16	MAUI County		
74		Install of EnerGov software and verify successful installation	0.5 days	0%	Tue 3/22/16	Tue 3/22/16	MAUI County		
75		Assess & Define Stage Sign Off	6 days	0%	Tue 3/22/16	Wed 3/30/16			
76		Provide Assess & Define Sign Off to MAUI County	1 day	0%	Tue 3/22/16	Wed 3/23/16	IT Implementation		
77		Review and Approve & Assess Define Sign Off	5 days	0%	Wed 3/23/16	Wed 3/30/16	MAUI County		
78		Deliver signed Assess & Define sign off to Tyler	0 days	0%	Wed 3/30/16	Wed 3/30/16	MAUI County		
79									
80		Stage 3 System Configuration	60.5 days	0%	Thu 3/31/16	Mon 5/27/16			
81		Configure all defined and approved Business Transactions	55 days	0%	Thu 3/31/16	Fri 5/12/16	IT Implementation		
82		Perform "mini-reviews" with customer as portions of the configuration are complete	55 days	0%	Thu 3/31/16	Fri 5/12/16	IT Implementation		
83		Deliver completed EnerGov database to Report Writers and Data Services	55 days	0%	Thu 3/31/16	Fri 5/12/16	IT Implementation		
84		Complete Basic Configuration Reviews	5 days	0%	Thu 3/31/16	Fri 5/12/16	IT Implementation, MAUI County		
85		ES&I Task 4: GIS Data Migration	45 days	0%	Thu 4/14/16	Thu 6/16/16			
86		Data Mapping Work Shop	20 days	0%	Thu 4/14/16	Wed 5/11/16			
87		Migrate Data into the LGIM Schema	25 days	0%	Thu 5/12/16	Thu 6/16/16			
88		Other tasks as identified - both Parties	55 days	0%	Thu 3/31/16	Fri 6/17/16	MAUI County, IT Implementation		
89		Configuration Review Sign Off	5 days	0%	Fri 5/17/16	Mon 5/27/16			
90		Provide System Configuration Sign Off to MAUI County	1 day	0%	Fri 5/17/16	Fri 5/17/16	IT Implementation		
91		Review and Approve System Configuration Sign Off	5 days	0%	Mon 6/20/16	Fri 6/24/16	MAUI County		
92		Deliver signed System Configuration sign off to Tyler	0 days	0%	Mon 6/27/16	Mon 6/27/16	MAUI County		
93									
94		Stage 4 Internal Test	34 days	0%	Mon 6/27/16	Fri 8/12/16			
95		Provide users logins for key Customer staff	25 days	0%	Mon 7/11/16	Fri 8/12/16	IT Implementation		
96		Conduct basic system configuration testing	25 days	0%	Mon 7/11/16	Fri 8/12/16	MAUI County		
97		ES&I Task 4 (Continued): GIS Data Migration	23 days	0%	Mon 6/27/16	Thu 7/28/16			
98		Assess Conversion Quality and Generate Reports	23 days	0%	Mon 6/27/16	Thu 7/28/16	ES&I, MAUI County		
99		Record testing results in SharePoint	25 days	0%	Mon 7/11/16	Fri 8/12/16	MAUI County		
100		Resolve any system issues identified	25 days	0%	Mon 7/11/16	Fri 8/12/16	IT Implementation		
101		Other tasks as identified	25 days	0%	Mon 6/27/16	Mon 8/1/16	MAUI County, IT Implementation		
102		Internal Testing Completed	1 day	0%	Tue 8/2/16	Tue 8/2/16	MAUI County		
103		Internal Test Sign Off	6 days	0%	Wed 8/3/16	Thu 8/11/16			
104		Provide Internal Test Sign Off to MAUI County	1 day	0%	Wed 8/3/16	Wed 8/3/16	IT Implementation		
105		Review and Approve Internal Test Sign Off	5 days	0%	Thu 8/4/16	Wed 8/10/16	MAUI County		
106		Deliver signed Internal Test sign off to Tyler	0 days	0%	Thu 8/11/16	Thu 8/11/16	MAUI County		
107									

Sample Project Plan with Estimated Project Schedule

C5823

County of MAUI, HI		Task Mode	Task Name	Duration	% Complete	Start	Finish	Resource Names
108			Stage 1 Build Specifications	43 days	0%	Fri 7/23/16	Wed 9/28/16	
109			Provide Legacy data mapping document	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Implementation
110			ESRI Task 4 (Continued): GIS Data Migration	15 days	0%	Fri 7/29/16	Thu 8/18/16	
111			Deliver Data, ETL Scripts and Source Code	15 days	0%	Fri 7/29/16	Thu 8/18/16	ESRI
112			Approve / Disapprove custom programming	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Implementation
113			Deliver Report samples in .pdf	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Report Dev
114			Deliver Report specifications	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Report Dev
115			Develop Custom Report specifications	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Report Dev
116			Validate custom reports specifications	25 days	0%	Mon 8/15/16	Mon 9/19/16	MAUI County
117			Correct errors in reports specifications	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Report Dev
118			Deliver APIs for any 3rd Party Integrations	25 days	0%	Mon 8/15/16	Mon 9/19/16	MAUI County
119			Develop Integration specs for Integrations	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Implementation
120			Allocate resource time for Data Import analysis session	25 days	0%	Mon 8/15/16	Mon 9/19/16	MAUI County
121			Provide remaining feedback regarding Legacy Data acquired	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Data Serv
122			ESRI Task 5: GIST Portal Configuration and Deployment	25 days	0%	Fri 8/19/16	Fri 8/23/16	
123			Deliver a PURL IC map service with layers required to configure Geo-Rules	25 days	0%	Fri 8/19/16	Fri 8/23/16	ESRI
124			Map Legacy Data	25 days	0%	Mon 8/15/16	Mon 9/19/16	IT Data Serv
125			Build Specifications Review Sign Off	7 days	0%	Tue 9/20/16	Wed 9/28/16	
126			Provide Build Specifications Sign Off to MAUI County	1 day	0%	Tue 9/20/16	Tue 9/20/16	IT Implementation
127			Review and Approve Build Specifications Sign Off	5 days	0%	Wed 9/21/16	Tue 9/27/16	MAUI County
128			Deliver signed Build Specifications sign off to Tyler	1 day	0%	Wed 9/28/16	Wed 9/28/16	MAUI County
129			Stage 6 Build	43 days	0%	Wed 9/28/16	Mon 12/5/16	
130			ESRI Task 6: Mobile Inspections	15 days	0%	Wed 9/28/16	Tue 10/18/16	
131			Provide scrubbed data to Tyler	1 day	0%	Thu 9/29/16	Thu 9/29/16	MAUI County
132			Configure Geo Rules and remaining GIS Configuration	15 days	0%	Thu 9/29/16	Wed 10/19/16	IT Implementation
133			Work toward delivering Custom Report output documents	35 days	0%	Mon 10/3/16	Mon 11/28/16	IT Report Dev
134			Work toward delivering test import of legacy data for testing	35 days	0%	Mon 10/3/16	Mon 11/28/16	IT Data Serv
135			Work toward delivering test interfaces	35 days	0%	Mon 10/3/16	Mon 11/28/16	MAUI County
136			Provide documented cut over strategy	35 days	0%	Mon 10/3/16	Mon 11/28/16	MAUI County
137			Build Review Sign Off	6 days	0%	Mon 11/28/16	Mon 12/5/16	
138			Provide Build Sign Off to MAUI County	1 day	0%	Mon 11/28/16	Mon 11/28/16	IT Implementation
139			Review and Approve Build Sign Off	5 days	0%	Tue 11/29/16	Mon 12/5/16	MAUI County
140			Deliver signed Build sign off to Tyler	1 day	0%	Mon 12/5/16	Mon 12/5/16	MAUI County
141			Stage 7 System Acceptance Planning	25 days	0%	Tue 12/6/16	Wed 1/25/17	
142			Coordinate Training logistics and schedule	15 days	0%	Tue 12/6/16	Tue 1/10/17	MAUI County, MAUI County
143			Provide suitable Training facilities	15 days	0%	Tue 12/6/16	Tue 1/10/17	MAUI County
144			Provide if necessary Tyler Training Lab	15 days	0%	Tue 12/6/16	Tue 1/10/17	MAUI County
145			Recommend test strategies, scenarios and best practices	15 days	0%	Tue 12/6/16	Tue 1/10/17	MAUI County
146			Provide standard test scripts and test criteria	15 days	0%	Tue 12/6/16	Tue 1/10/17	IT Trainer, IT Implementation, MAUI
147			On Site: Provide UAT training (train user acceptance testers)	10 days	0%	Mon 1/9/17	Fri 1/20/17	IT Trainer
148			Conduct testing and system validation for EU1	15 days	0%	Tue 12/6/16	Tue 1/10/17	IT Implementation
149			System Acceptance Planning Sign Off	11 days	0%	Wed 1/11/17	Wed 1/25/17	
150			Provide System Acceptance Planning Sign Off to MAUI County	5 days	0%	Wed 1/11/17	Tue 1/17/17	IT Implementation
151			Review and Approve System Acceptance Planning Sign Off	5 days	0%	Wed 1/18/17	Tue 1/24/17	MAUI County
152			Deliver signed System Acceptance Planning sign off to Tyler	1 day	0%	Wed 1/25/17	Wed 1/25/17	MAUI County
153			Stage 8 Verification and System Acceptance (UAT)	25 days	0%	Mon 1/30/17	Fri 5/25/17	
154			ESRI Task 7: Training on ArcGIS for Local Government	20 days	0%	Mon 1/30/17	Fri 2/24/17	ESRI
155			Develop Acceptance Schedule	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County, IT Implementation
156			Develop additional test scripts and testing criteria for UAT	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
157			Provide strategic staff for Acceptance testing	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
158			Conduct Acceptance Criteria Testing	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County

Sample Project Plan with Estimated Project Schedule

County of MAUI HI							
ID	Task Mode	Task Name	Duration	% Complete	Start	Finish	Resource Names
162		Conduct Geo-rule and GIS configuration Testing	75 days	0%	Mon 1/30/17	Fri 5/12/17	ESRI, MAUI County, IT Implementation
163		Conduct testing of case types / workflows	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
164		Conduct testing of custom and standard reports	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
165		Conduct testing of forms & custom fields	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
166		Conduct testing of interfaces	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
167		Conduct testing of data imports	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
168		Resolve Acceptance failures to meet criteria	75 days	0%	Mon 1/30/17	Fri 5/12/17	IT Implementation
169		Retest until Acceptance criteria met	75 days	0%	Mon 1/30/17	Fri 5/12/17	MAUI County
170		Verification and System Acceptance Sign Off	18 days	0%	Mon 5/15/17	Fri 5/26/17	
171		Provide Verification and System Acceptance Sign Off to MAUI County	5 days	0%	Mon 5/15/17	Fri 5/19/17	IT Implementation
172		Review and Approve Verification and System Acceptance Sign Off	5 days	0%	Mon 5/22/17	Fri 5/26/17	MAUI County
173		Deliver signed Verification and System Acceptance sign off to Tyler	1 day	0%	Fri 5/26/17	Fri 5/26/17	MAUI County
174				0%			
175		Stage 6 User Training	48 days	0%	Mon 6/5/17	Fri 7/28/17	
176		Coordinate with Customer to define training logistics and schedule	35 days	0%	Mon 6/5/17	Fri 7/21/17	MAUI County, IT Implementation
177		Ensure personnel critical to the success of the project (subject matter experts / key)	35 days	0%	Mon 6/5/17	Fri 7/21/17	MAUI County
178		Ensure trainees are available for training	35 days	0%	Mon 6/5/17	Fri 7/21/17	IT Implementation
179		Conduct Training	35 days	0%	Mon 6/5/17	Fri 7/21/17	IT Trainer
180		Other tasks as identified	35 days	0%	Mon 6/5/17	Fri 7/21/17	MAUI County, IT Implementation, IT
181		User Training Sign Off	5 days	0%	Mon 7/24/17	Fri 7/28/17	
182		Provide User Training Sign Off to MAUI County	1 day	0%	Mon 7/24/17	Mon 7/24/17	IT Implementation
183		Review and Approve User Training Sign Off	4 days	0%	Tue 7/25/17	Fri 7/28/17	MAUI County
184		Deliver signed User Training sign off to Tyler	1 day	0%	Fri 7/28/17	Fri 7/28/17	MAUI County
185							
186		Stage 10 Production & Production Support	38 days	0%	Mon 7/31/17	Fri 9/15/17	
187		Prep Go Live	5 days	0%	Mon 7/31/17	Fri 8/4/17	
188		Go Live Prep Tasks - TBD	5 days	0%	Mon 7/31/17	Fri 8/4/17	MAUI County, IT Implementation
189		Go Live	33 days	0%	Wed 8/2/17	Fri 9/15/17	
190		Deliver fully configured database for Production data import to EnerGov	1 day	0%	Wed 8/2/17	Wed 8/2/17	IT Implementation
191		Data Conversion cutover	1 day	0%	Wed 8/2/17	Wed 8/2/17	IT Data Serv
192		Integration Cutover	1 day	0%	Wed 8/2/17	Wed 8/2/17	IT Data Serv
193		Deploy fully configured and imported master EnerGov database into the Production environment	1 day	0%	Fri 8/4/17	Fri 8/4/17	IT Implementation
194		On Site: pre and post production support of specified scope	20 days	0%	Mon 8/7/17	Fri 9/1/17	
195		Provide technical and functional user support and resolution	20 days	0%	Mon 8/7/17	Fri 9/1/17	IT Implementation, IT Trainer
196		Develop and maintain post-production issues list in SharePoint	20 days	0%	Mon 8/7/17	Fri 9/1/17	MAUI County
197		Go-Live Sign Off	10 days	0%	Mon 9/4/17	Fri 9/15/17	
198		Provide Go-Live Sign Off to MAUI County	5 days	0%	Mon 9/4/17	Fri 9/8/17	IT Implementation
199		Review and Approve Go-Live Sign Off	5 days	0%	Mon 9/11/17	Fri 9/15/17	MAUI County
200		Deliver signed Go-Live sign off to Tyler	1 day	0%	Fri 9/15/17	Fri 9/15/17	MAUI County



**Exhibit H
Project Org Chart**

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C5823 Page No. 157



Maui County to identify, at the very least, the following resources on their end:

- Client Executive Sponsor (should plan to be the touch point between Dane Womble of Tyler Technologies and the County)
- Client Project Manager (the primary touch point with Stanley Lawrence and secondary with Mo Mabrouk and Wendy Steiner)
- Client Key Stakeholder Committee (will work with Client Project Manager to shape and steer project decisions and direction)

Description of Key Role from Tyler Technologies Project Team:

Executive Sponsor:

The Tyler Executive Sponsor will partner with the County's Executive Sponsor to provide ultimate oversight on the health and progression of the project. Executive Sponsors from both organizations will participate in key project events including the project Kick-off, significant milestone sign-off/status meetings, and other events as necessary. Both should have complete authority and autonomy to direct resources and remove obstacles to the project's success within each organization.

Implementation Manager/Training Manager:

The Tyler Implementation Manager (and Training Manager) oversees a group of professional services resources including Project Managers, Principal Consultants and Implementation Consultants (and Trainers for the Training Manager). They act as a management sponsor for the County's implementation and help the Tyler Project Manager align proper and necessary allocation of resources of the various types across their teams and the technical resources related to software deployment, conversion and report writing. In addition the Implementation Manager serves as the first point of escalation for both the Tyler Project Manager as well as the County's Project Manager.

Director of Conversions:

The Tyler Director of Conversions interacts with the County's implementation through the Tyler Implementation Manager and Tyler Project Manager. The Director will work to ensure proper resource allocation around the execution of the scoped data conversion and/or report writing activities relevant to the implementation and will ensure quality and timely delivery of those deliverables.

Deployment Manager:

Tyler has a team of specialized technicians exclusively responsible for the installation (deployment) of Energov on your supporting platform for the application, as well as, ongoing technical support of the application on that platform. The Deployment Manager interacts with the County's implementation through the Tyler Implementation Manager and Tyler Project Manager to ensure proper resource allocation for both the initial installation of the Energov applications and any ongoing technical support of the applications on the supporting platform.

Project Manager:

The Tyler Project Manager primarily interfaces with the County's Project Manager and the Key Stakeholder Committee. The Tyler Project Manager is responsible for managing all project deliverables, aligning and assigning resources to the project as appropriate, identifying and mitigating risks, publishing standard project documentation (project plan, status reports, project library), obtaining key sign-offs and milestone acknowledgement and more as is customary for a Project Manager in the technology industry.

Principal Consultant:

Tyler assigns a Principal Consultant to all Energov implementations (note that despite the use of the word “consultant” in the job title Principal and Implementation Consultants are direct employees of Tyler Technologies). The Principal Consultant is the most senior consultant working on the project and is responsible for leading the effort to create specifications for the configuration of the application based on the discovery process utilized during the Assess/Define stage of the implementation. In addition, the Principal Consultant coordinates and directs the activities of the Implementation Consultants through all stages of the project.

Implementation Consultant:

The Tyler Implementation Consultants perform a variety of tasks throughout the implementation including (at the direction of the Principal Consultant) documentation of Assess/Define specifications, system configuration per the specifications identified during Assess/Define, User Acceptance Testing consulting/training/support, and production support at the point of go-live.

Application Trainers:

The Tyler Application Trainers provide scripted, curriculum-focused training to designated County end-users of the application at various points throughout the implementation life cycle. The overall intent of the training provided by the Trainer is to enable the client to see end-to-end processes, based on best practices, within the software to help illustrate the big picture. The delivery of the training not only improves the user's product knowledge, but helps aid in critical discovery conversations and configuration decisions along the path of the implementation.



Exhibit I
Systems Management Product Sheet

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Tyler System Management Services

Tyler System Management Services is a comprehensive, proactive IT management solution designed to help you reduce downtime, improve system performance, and protect your data. Our experts monitor your system environment 24/7, providing real-time alerts and proactive maintenance to prevent issues before they occur. This service is ideal for businesses that rely on their IT infrastructure for critical operations.

Proactive System Monitoring

Our goal is to identify and respond to IT issues before they cause system downtime. Through an advanced monitoring tool placed on the client server, Tyler professionals have access to the pulse of your system environment—monitoring crucial activities in real-time. Systems Management proactively monitors:

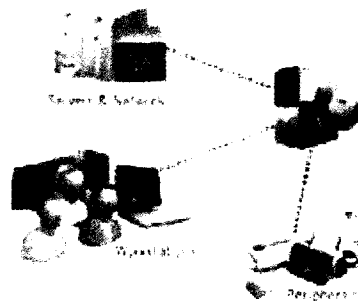
- Tyler application availability
- Raid array monitoring
- Disk usage
- Memory usage
- System Uptime
- Reports errors in the event log
- Windows updates needed
- Monthly System Status report via email

Remote Technical Support

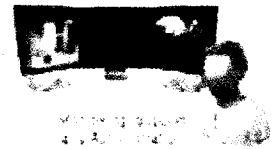
When you're enrolled in Systems Management Services, you have access to Tyler's IT professionals to address workstation, server and network support issues. Through Citrix® GoToAssist remote access technology, our technicians securely connect to your system and address issues in real-time. Remote technical support handles the following:

- Server and workstation hardware and software issues
- Technical help-desk support – *direct unlimited remote support on technical issues.*
- Tyler Application and Database migration to new Hardware.

Client System Environment



Tyler System Management



Database Administration

Through monitoring and remote assistance, Tyler's technicians become your off-site Database Administrators, maintaining:

- SQL Server updates and patches
- Maintenance plan setup:
 - Monitor maintenance plans
 - Verify success of maintenance plans
 - Routine tasks including Integrity checks.
 - SQL Server events and transaction log maintenance.
- Database monitoring
 - Integrity checks
 - Re-index database

Data Backup Assistance

* Additional fees apply

Continued on Reverse

We know you rely on your system data—and through **System Management Services** we assist you in backing your data, and offer additional support should your data become compromised.

- Assistance in implementing on-site backup procedures
- Provide backup troubleshooting and issue resolution
- Monitor local backups and provide status reports

Your software and system requires continual maintenance for keeping up-to-date with the latest updates, Microsoft service packs and antivirus versions. Systems Management manages these maintenance issues for you:

- Installation of current Microsoft service packs and updates on enrolled computers
- Provide additional assistance in virus removal
- Tyler Application Update Service
 - Updates are automatically applied as they are released

Name	Status	Last Update	Health
Computer1	Online	1/1/2010	Good
Computer2	Online	1/1/2010	Good
Computer3	Online	1/1/2010	Good
Computer4	Online	1/1/2010	Good
Computer5	Online	1/1/2010	Good
Computer6	Online	1/1/2010	Good
Computer7	Online	1/1/2010	Good
Computer8	Online	1/1/2010	Good
Computer9	Online	1/1/2010	Good
Computer10	Online	1/1/2010	Good
Computer11	Online	1/1/2010	Good
Computer12	Online	1/1/2010	Good
Computer13	Online	1/1/2010	Good
Computer14	Online	1/1/2010	Good
Computer15	Online	1/1/2010	Good
Computer16	Online	1/1/2010	Good
Computer17	Online	1/1/2010	Good
Computer18	Online	1/1/2010	Good
Computer19	Online	1/1/2010	Good
Computer20	Online	1/1/2010	Good

Systems Management Monitoring Screen

Discounted On-Site Fees

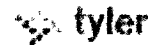
In the event IT support or Technical Services are needed at your location, we will provide those advanced services at a discount from our normal on-site service fees.



Exhibit J
Hardware Scope and Specifications

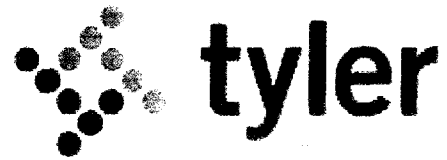
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Hardware & System Software



Hardware, Systems and Software	Qty	Price	Hardware & Software
Dell PowerEdge VRTX Rack Chassis 1 Node PowerEdge M620 2x Intel Xeon E5-2680 v2 2.5Hz 8-core processors (36M cache, 9.5GB/s L3) (120W) 256GB 100MHz RDIMM Memory 1 500 GB 15K RPM Hot-swap SAS HDD (RAID 1) 300,000 IOPS capacity PERC H710 RAID controller Supermicro I Chassis 1x Redundant 1100W Power Supply 1 Year On-Site Support and 40 on-site hours Androids OS/2012 Standard Edition 1 Server 2 2x 10GbE ports Storage 1 145 GB 15K RPM Hot-swap SAS HDD (RAID 1) (64GB) (36M cache) (120W) 10 500 GB 15K RPM Hot-swap SAS HDD (RAID 10) 375,000 IOPS capacity Upgrade to 3x NBD ProSupport Onsite Monitor 2-hour Response warranty for VRTX	1	65,100	Dell - 60 Day onsite warranty
Dell PowerVault LT05-140 - Rack Mounted LT05 External Tape Drive w/8 LTQ5 15TB 3.5TB Tapes include Backup Exec 2012 Small Business Edition 3 year NBD onsite warranty		5,125	
Flat Panel Monitor for any server Dell 20" E2014 wide screen monitor for any server	1	15	
Uninterruptible Power Supplies (UPS) Rack Mount - APC 1500 - 2U - SMT1500RM2UL1A post rack only APC UPS Network Management Card (NC2000)	1	1,600	
Backup Licensing Backup Exec 2014 Small Business Edition with near 24/7 Exchange support 800/2121 Small Business Edition Agent for backup of additional servers including SQL and Exchange Backup Exec 2014 Win MEXA (MEX75)	1	600	
	1	8,375	
	1	40	
Microsoft Open Serv Licensing - Minimum of 5 (delivered via email) Microsoft Windows Server 2012R2 12 Prio Microsoft Windows Server 2012R2 Client Access License	1	5,000	
	120	11,600	
SQL SERVER 2012 R2 RUNTIME LICENSING 1000 100 users, Microsoft SQL 2012 Runtime Runtime 12 CPU, 100GB NOTE: By selecting RUNTIME licensing the customer is legally bound to ONLY use SQL Server RUNTIME for their Applications Applications	12	18,000	
VMWARE VMware ES Standard for 1 Processor (v20440) Support and Subscription for VMware ES Standard for 1 Processor (v20440)	5	15,125	
	15	15,125	
Hardware & System Software Subtotal Onsite Installation & Configuration Remote Installation & Configuration		45,150	1
		17,450	
		0	
Hardware and System Software Total		161,100	1

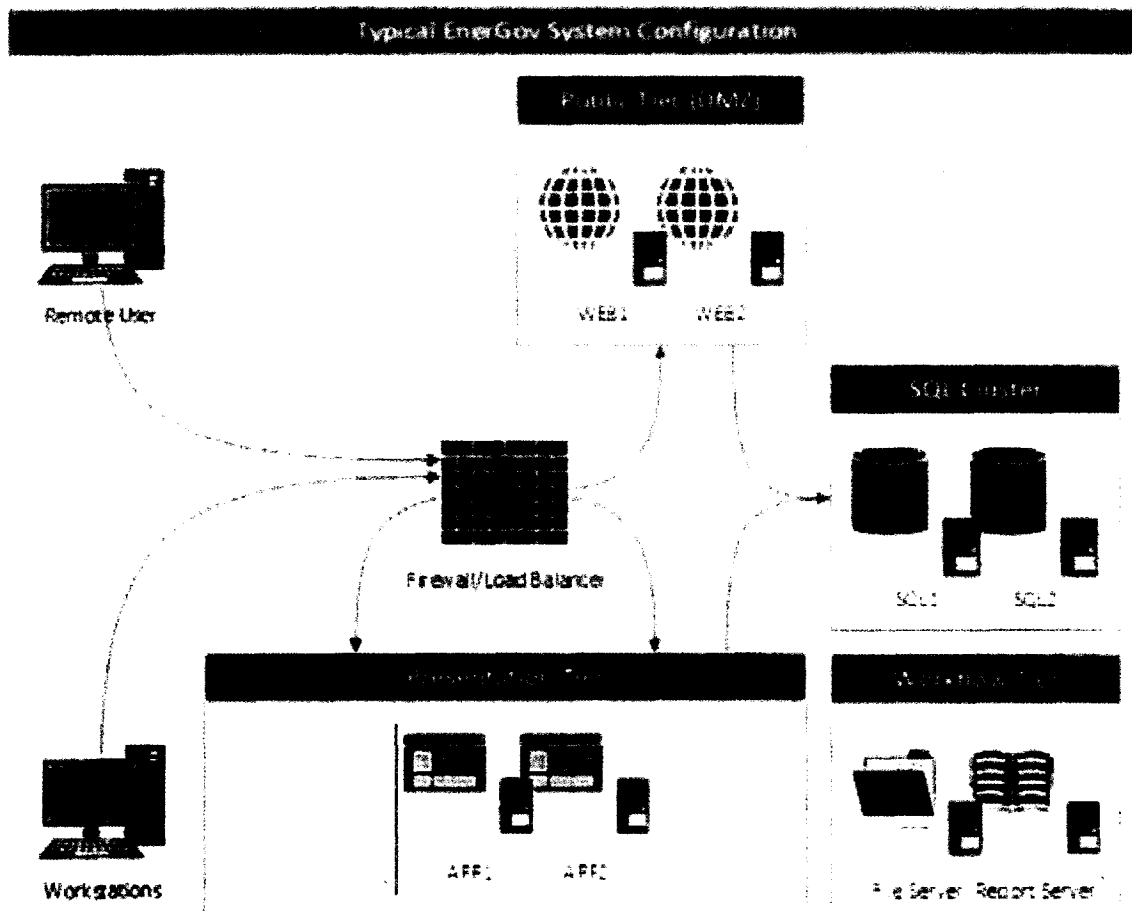
Empowering people who serve the public



EnerGov System (Maui) Specification Reference (350-400 users)

This document describes the best practices for deploying
EnerGov in Large-Scale Environments with 350-400 users
150 Concurrent Users and 250 Casual Users

Production Diagram



Tyler will provide the following server environment:

Production, Stage, and Test with the following specs. This environment will be virtualized using VMware. Host Servers specification and configuration will be mutually agreed upon. Entity is responsible for all the networking, power, and infrastructure.

Infrastructure Environment

Application Server [x3]

This internal web server hosts the core product. The product runs in IIS and is accessed via HTTPS. The application server also hosts the EnerGov Windows Service, which runs server-side processes.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

Web Server [x2]

The web server hosts all externally accessible EnerGov products. This includes the Citizen Access portal, EnerGov IVR, the eReview Portal, and MobileGov Web Services. If users need external access to the core product, an additional copy will be deployed here. Users access this server via HTTPS.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

SQL Server [x2]

For clients with more than 100 concurrent users, Tyler Technologies recommends clustering database servers for additional availability and reliability. The SQL cluster houses the SQL databases for EnerGov, as well as the database for TCM (if applicable). TCM causes storage requirements to increase.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
System Software	Microsoft SQL Server 2012 Enterprise
Processor	Xeon Hex Core
Memory	128GB RAM
Disk Space	100GB RAID for operating system 1TB RAID for data
Network	Gigabit Ethernet

File Server

Some clients deploy a dedicated file server where document attachments are stored. Otherwise, attachments are stored on any one of the web or application servers. Attachments on a file server are accessed via an IIS virtual directory pointed at a UNC path on the file server. The service account running the application pool and application needs to have read and write permissions on the share and file system.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2008 R2 or Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	16GB RAM
Disk Space	100GB RAID for operating system 500GB RAID for data
Network	Gigabit Ethernet

Reporting Server

Some clients deploy a dedicated reporting server to run the application's batch processes. Otherwise, these processes are run on one of the application servers.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2008 R2 or Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files 500GB RAID for data
Network	Gigabit Ethernet

Stage Environment

Application Server [x1]

This internal web server hosts the core product. The product runs in IIS and is accessed via HTTPS. The application server also hosts the EnerGov Windows Service, which runs server-side processes.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

Web Server [x1]

The web server hosts all externally accessible EnerGov products. This includes the Citizen Access portal, EnerGov IVR, the eReview Portal, and MobileGov Web Services. If users need external access to the core product, an additional copy will be deployed here. Users access this server via HTTPS.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

SQL Server [x1]

For clients with more than 100 concurrent users, Tyler Technologies recommends clustering database servers for additional availability and reliability. The SQL cluster houses the SQL databases for EnerGov, as well as the database for TCM (if applicable). TCM causes storage requirements to increase.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
System Software	Microsoft SQL Server 2012 Enterprise
Processor	Xeon Hex Core
Memory	128GB RAM
Disk Space	100GB RAID for operating system 1TB RAID for data
Network	Gigabit Ethernet

*Test Environment***Application Server [x1]**

This internal web server hosts the core product. The product runs in IIS and is accessed via HTTPS. The application server also hosts the EnerGov Windows Service, which runs server-side processes.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

Web Server [x1]

The web server hosts all externally accessible EnerGov products. This includes the Citizen Access portal, EnerGov IVR, the eReview Portal, and MobileGov Web Services. If users need external access to the core product, an additional copy will be deployed here. Users access this server via HTTPS.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
Processor	Xeon Hex Core
Memory	64GB RAM
Disk Space	100GB RAID for operating system and application files
Network	Gigabit Ethernet

SQL Server [x1]

For clients with more than 100 concurrent users, Tyler Technologies recommends clustering database servers for additional availability and reliability. The SQL cluster houses the SQL databases for EnerGov, as well as the database for TCM (if applicable). TCM causes storage requirements to increase.

COMPONENT	REQUIREMENT
Operating System	Microsoft Windows Server 2012
System Software	Microsoft SQL Server 2012 Enterprise
Processor	Xeon Hex Core
Memory	128GB RAM
Disk Space	100GB RAID for operating system 1TB RAID for data
Network	Gigabit Ethernet

Virtualization

Tyler Technologies supports virtualization with EnerGov. Some guidelines and recommendations for virtualization are as follows:

- VMware ESXi 5.0
- Host systems should have a minimum of 64GB RAM
- Host systems should have dual-socket Xeon CPUs
- Host systems should have a minimum of two network cards
- Each guest operating system requires four virtual cores

Ports/Firewall

Tyler Technologies recommends load balancing EnerGov between two web servers. The exact port configuration may depend on the type of load balancer used.

Port	From	To	Purpose
TCP ports 443/80*	External	Load Balancer	Public access to external web servers
TCP port 1433	All servers	SQL Cluster IP	Internal application access to SQL
UDP port 1434	All Servers	SQL Cluster IP	Internal application access to SQL
TCP ports 445/139	Web/App Servers	Attachment Location	Application access to EnerGov attachments

*Port 80 is used if you want to support 80 > 443 redirection

Load Balancing

Load Balancing of the IIS servers is left to the discretion of the client. Tyler Technologies has had success using FS's load balancers. Further discussion may need to take place when finalizing a load balancing solution.

Workstations (Provided by Maui)

COMPONENT	REQUIREMENT
Hardware	Microsoft Windows Certified PC (nationally recognized brand)
Operating System	Windows 7 or Windows 8
System Software	Microsoft .NET Framework 4.5, Microsoft Silverlight (latest)
Processor	Multi-core CPU
Memory	4GB RAM
Disk Space	10GB available disk space
Network	Gigabit Ethernet

Browser Compatibility

BROWSER	VERSIONS
Internet Explorer*	8-11
Chrome*	Latest
Firefox*	Latest
Safari	Latest

*These browsers are tested regularly for compatibility; the others are not tested regularly, but are supported.

Mobile Applications (Provided by Maui)

EnerGov's MobileGov Solution is capable of running on Tablet PCs, Laptops or Windows Mobile Smartphone. It is highly recommended that these devices be suitable for "field use" (i.e. ruggedized). If Wi-Fi or reliable AirCard signal is readily available, users are also capable of running the full EnerGov .NET application in the field (Laptops and Tablet PCs only). Additionally, field printing systems are recommended for on-the-spot printing of NOVs, failed inspection notices and other relevant documents in the field. It is best suited that these field units communicate via Bluetooth for simple wireless functionality in the field.

DEVICE TYPE	RECOMMENDED
Laptop	Panasonic Toughbook 30, AirCard or Gobi Mobile Broadband (or readily available Wi-Fi), HP OfficeJet H470 Mobile Printer
Tablet PC	Panasonic Toughbook H1 Field, Gobi Mobile Broadband (or readily available Wi-Fi), Zebra Technologies RW420 Mobile Printer
iPad	iPad 2 or higher with 3G/4G or Wi-Fi capability
Smartphone	Windows Mobile 7 OS (preferred), Zebra Technologies RW420 Mobile Printer

Backups

Developing a consistent backup strategy is a vital part of any organization's business continuity plan. A good backup plan ensures that you do not lose the hard work and time you invested in data entry if a hardware failure or natural disaster occurs. A plan such as this is easy to develop and usually easy to implement. This section outlines the steps you should take to properly back up your data.

Ultimately, it is the client's responsibility to ensure all systems are backed up regularly. Most entities already have an established backup and recovery solution in place, and most enterprise backup solutions provide a Microsoft SQL Agent capable of backup up an online SQL database. Tyler Technologies recommends purchasing SQL agents for each clustered SQL server from your preferred backup utility vendor. It is also recommended that built-in SQL maintenance plans be used to create nightly backups of the data, as well as a backup that is offsite.

Rotating Backup Media

Backups occur differently, depending on the size of the database being used. The differences directly impact how quickly you can resolve problems and how much effort you must expend. Tyler recommends that you use, at minimum, the following 6-tape rotation:

WEEK	ROTATION
Week 1	Monday, Tuesday, Wednesday, Thursday, Friday 1
Week 2	Monday, Tuesday, Wednesday, Thursday, Friday 2

This rotation is sufficient for most customers because you can go back a few business days to find files. However, if you feel you need a little more protection, you can use a different set of tapes for Monday-Thursday of Week 2, and/or you can keep a Friday 3 and Friday 4 tape so that you have a month's worth of Friday backups. We also recommend that you periodically (monthly, quarterly, etc.) pull a tape permanently out of rotation to store off site.

Backing up Your SQL Databases

For EnerGov, the default databases should consist of at least EnerGov_Prod and EnerGov_Test. If you have TCM, the database is typically named "tylrcm." Please verify your naming conventions.

There are a few different methods for backing up your SQL database.

- **SQL Backup Function:** The Microsoft SQL Server 2008 R2 Management Studio has built-in backup tools that can cause SQL to dump the EnerGov database to a backup file in the SQL default backup folder while the SQL services are running. This location is:
C:\Program Files\Microsoft SQL Server\MSSQL\Backup (may vary per installation)
- **Third-Party Backup Agent:** This method requires that you have some sort of third-party backup program (e.g., Symantec Backup Exec, Brightstor ARC Serve, etc.) which uses a SQL backup agent. These special backup agents allow the Microsoft SQL databases to be backed up while they are online.

Other Directories in EnerGov

Even though program files and run times can be replaced by Tyler, Tyler strongly recommends that you back up the entire C:\inetpub\ folder be backed up on the web server (drive letter may vary per installation). The file server containing attachments and/or Asset Management data should also be backed up.

Watching for Signs of Failure

Monitor your backup status every morning. If there is a noticeable problem, such as an error light blinking on your tape drive, a tape being ejected without your knowledge, or an error message displaying about your backup, please contact us or your IT staff so that the problem can be resolved quickly.

Accepting Responsibility

Having good backups of EnerGov data is your responsibility. However, Tyler Technologies offers additional services that can help monitor your local backups, transmit your data to off-site locations, and even provide access to your EnerGov software and data over the Internet in case of disaster or serious equipment failure at your site.

Disaster Recovery

In case of system failure due to unforeseen disaster, Tyler recommends that you have a Business Continuity Plan, which should include a disaster recovery service. Tyler offers a disaster recovery service for an additional fee. If you haven't already purchased this plan, contact Technical Services or Sales at 1-888-654-3293 for more information.