

SOLE SOURCE AGREEMENT FOR PROFESSIONAL SERVICES

PINMAP 3.0

BETWEEN



COOK COUNTY GOVERNMENT

COOK COUNTY BUREAU OF TECHNOLOGY

AND

GREAT ARC TECHNOLOGIES, INC.

CONTRACT NO. 2410-06132

PURCHASE ORDER NO. 70000329587

NON-FEDERALLY FUNDED CONTRACT

PROFESSIONAL SERVICES AGREEMENT

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List of Exhibits

Exhibit 1	Statement of Work and Schedule of Compensation
Exhibit 2	Cook County Information Technology Special Conditions
Exhibit 3	Minority and Women Owned Business Enterprise Commitment
Exhibit 4	Evidence of Insurance
Exhibit 5	Board Authorization
Exhibit 6	Identification of Subcontractor/Supplier/Subconsultant Form
Exhibit 7	Electronic Payables Program (“E-Payables”)
Exhibit 8	Economic Disclosure Statement

AGREEMENT

This Agreement is made and entered into by and between the County of Cook, a public body corporate of the State of Illinois, on behalf of Office of the Chief Procurement Officer hereinafter referred to as "County" and Great Arc Technologies, Inc., doing business as a corporation of the State of Illinois hereinafter referred to as "Consultant", pursuant to authorization by the Cook County Board of Commissioners on October 24, 2024, as evidenced by Board Authorization letter attached hereto as EXHIBIT "5".

BACKGROUND

This Agreement is being entered into in accordance with Section 34-139, Sole Source Procurements, of the Cook County Procurement Code.

Consultant represents that it has the professional experience and expertise to provide the necessary services and further warrants that it is ready, willing and able to perform in accordance with the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, the County and Consultant agree as follows:

TERMS AND CONDITIONS

ARTICLE 1) INCORPORATION OF BACKGROUND

The Background information set forth above is incorporated by reference as if fully set forth here.

ARTICLE 2) DEFINITIONS

a) Definitions

The following words and phrases have the following meanings for purposes of this Agreement:

"**Additional Services**" means those services which are within the general scope of Services of this Agreement, but beyond the description of services required under Article 3, and all services reasonably necessary to complete the Additional Services to the standards of performance required by this Agreement. Any Additional Services requested by the Using Agency require the approval of the Chief Procurement Officer in a written amendment to this Agreement before Consultant is obligated to perform those Additional Services and before the County becomes obligated to pay for those Additional Services.

"**Agreement**" means this Professional Services Agreement, including all exhibits attached to it and incorporated in it by reference, and all amendments, modifications or revisions made in accordance with its terms.

"**Chief Procurement Officer**" means the Chief Procurement Officer for the County of Cook and any representative duly authorized in writing to act on his behalf.

"**Services**" means, collectively, the services, duties and responsibilities described in Article 3 of this Agreement and any and all work necessary to complete them or carry them out fully and to the standard of performance required in this Agreement.

"**Subcontractor**" or "**Subconsultant**" means any person or entity with whom Consultant contracts to provide any part of the Services, of any tier, suppliers and materials providers, whether or not in privity with Consultant.

"**Using Agency**" shall mean the department of agency within Cook County including elected officials.

b) Interpretation

- i) The term "**include**" (in all its forms) means "include, without limitation" unless the context clearly states otherwise.
- ii) All references in this Agreement to Articles, Sections or Exhibits, unless otherwise expressed or indicated are to the Articles, Sections or Exhibits of this Agreement.
- iii) Words importing persons include firms, associations, partnerships, trusts, corporations and other legal entities, including public bodies, as well as natural persons.
- iv) Any headings preceding the text of the Articles and Sections of this Agreement, and any tables of contents or marginal notes appended to it are solely for convenience or reference and do not constitute a part of this Agreement, nor do they affect the meaning, construction or effect of this Agreement.
- v) Words importing the singular include the plural and vice versa. Words of the masculine gender include the correlative words of the feminine and neuter genders.
- vi) All references to a number of days mean calendar days, unless expressly indicated otherwise.

c) Incorporation of Exhibits

The following attached Exhibits are made a part of this Agreement:

Exhibit 1	Statement of Work and Schedule of Compensation
Exhibit 2	Cook County Information Technology Special Conditions
Exhibit 3	Minority and Women Owned Business Enterprise Commitment
Exhibit 4	Evidence of Insurance
Exhibit 5	Board Authorization
Exhibit 6	Identification of Subcontractor/Supplier/Subconsultant Form
Exhibit 7	Electronic Payables Program (“E-Payables”)
Exhibit 8	Economic Disclosure Statement

d) Order of Precedence

In the event there is a conflict between or among any of the documents specified in subsection (c) Incorporation of Exhibits, the terms of the Professional Services Agreement shall control. This Contract shall be interpreted and construed based upon the following Order of Precedence. Such order of precedence shall govern to resolve all cases of conflict, ambiguity or inconsistency between Exhibits:

Exhibit 1	Statement of Work and Schedule of Compensation
Exhibit 2	Cook County Information Technology Special Conditions
Exhibit 3	Minority and Women Owned Business Enterprise Commitment
Exhibit 4	Evidence of Insurance
Exhibit 5	Board Authorization
Exhibit 6	Identification of Subcontractor/Supplier/Subconsultant Form
Exhibit 7	Electronic Payables Program (“E-Payables”)
Exhibit 8	Economic Disclosure Statement

ARTICLE 3) DUTIES AND RESPONSIBILITIES OF CONSULTANT

a) Scope of Services

This description of Services is intended to be general in nature and is neither a complete description of Consultant's Services nor a limitation on the Services that Consultant is to provide under this Agreement. Consultant must provide the Services in accordance with the standards of performance set forth in Section 3c. The Services that Consultant must provide include, but are not limited to, those described in Exhibit 1, Statement of Work, which is attached to this Agreement and incorporated by reference as if fully set forth here.

b) Deliverables

In carrying out its Services, Consultant must prepare or provide to the County various Deliverables. "**Deliverables**" include work product, such as written reviews, recommendations, reports and analyses, produced by Consultant for the County.

The County may reject Deliverables that do not include relevant information or data, or do not include all documents or other materials specified in this Agreement or reasonably necessary for the purpose for which the County made this Agreement or for which the County intends to use the Deliverables. If the County determines that Consultant has failed to comply with the foregoing standards, it has 30 days from the discovery to notify Consultant of its failure. If Consultant does not correct the failure, if it is possible to do so, within 30 days after receipt of notice from the County specifying the failure, then the County, by written notice, may treat the failure as a default of this Agreement under Article 9.

Partial or incomplete Deliverables may be accepted for review only when required for a specific and well-defined purpose and when consented to in advance by the County. Such Deliverables will not be considered as satisfying the requirements of this Agreement and partial or incomplete Deliverables in no way relieve Consultant of its commitments under this Agreement.

c) Standard of Performance

Consultant must perform all Services required of it under this Agreement with that degree of skill, care and diligence normally shown by a consultant performing services of a scope and purpose and magnitude comparable with the nature of the Services to be provided under this Agreement. Consultant acknowledges that it is entrusted with or has access to valuable and confidential information and records of the County and with respect to that information, Consultant agrees to be held to the standard of care of a fiduciary.

Consultant must assure that all Services that require the exercise of professional skills or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Consultant must provide copies of any such licenses. Consultant remains responsible for the professional and technical accuracy of all Services or Deliverables furnished, whether by Consultant or its Subconsultants or others on its behalf. All Deliverables must be prepared in a form and content satisfactory to the Using Agency and delivered in a timely manner consistent with the requirements of this Agreement.

If Consultant fails to comply with the foregoing standards, Consultant must perform again, at its own expense, all Services required to be re-performed as a direct or indirect result of that failure. Any review, approval, acceptance or payment for any of the Services by the County does not relieve Consultant of its responsibility for the professional skill and care and technical accuracy of its Services and Deliverables. This provision in no way limits the County's rights against Consultant either under this Agreement, at law or in equity.

d) Personnel

i) Adequate Staffing

Consultant must, upon receiving a fully executed copy of this Agreement, assign and maintain during the term of this Agreement and any extension of it an adequate staff of competent personnel that is fully equipped, licensed as appropriate, available as needed, qualified and assigned exclusively to perform the Services. Consultant must include among its staff the Key Personnel and positions as identified below. The level of staffing may be revised from time to time by notice in writing from Consultant to the County and with written consent of the County, which consent the County will not withhold unreasonably. If the County fails to object to the revision within 14 days after receiving the notice, then the revision will be considered accepted by the County.

ii) Key Personnel

Consultant must not reassign or replace Key Personnel without the written consent of the County, which consent the County will not unreasonably withhold. "**Key Personnel**" means those job titles and the persons assigned to those positions in accordance with the provisions of this Section 3.d(ii). The Using Agency may at any time in writing notify Consultant that the County will no longer accept performance of Services under this Agreement by one or more Key Personnel listed. Upon that notice Consultant must immediately suspend the services of the key person or persons and must replace him or them in accordance with the terms of this Agreement. A list of Key Personnel is found in Exhibit 1, Scope of Services.

iii) Salaries and Wages

Consultant and Subconsultants must pay all salaries and wages due all employees performing Services under this Agreement unconditionally and at least once a month without deduction or rebate on any account, except only for those payroll deductions that are mandatory by law or are permitted under applicable law and regulations. If in the performance of this Agreement Consultant underpays any such salaries or wages, the Comptroller for the County may withhold, out of payments due to Consultant, an amount sufficient to pay to employees underpaid the difference between the salaries or wages required to be paid under this Agreement and the salaries or wages actually paid these employees for the total number of hours worked. The amounts withheld may be disbursed by the Comptroller for and on account of Consultant to the respective employees to whom they are due. The parties acknowledge that this Section 3.d(iii) is solely for the benefit of the County and that it does not grant any third party beneficiary rights.

e) Minority and Women Owned Business Enterprises Commitment

In the performance of this Agreement, including the procurement and lease of materials or equipment, Consultant must abide by the minority and women's business enterprise

commitment requirements of the Cook County Ordinance, (Article IV, Section 34-267 through 272) except to the extent waived by the Compliance Director, which are set forth in Exhibit 3. Consultant's completed MBE/WBE Utilization Plan evidencing its compliance with this requirement are a part of this Agreement, in Form 1 of the MBE/WBE Utilization Plan, upon acceptance by the Compliance Director. Consultant must utilize minority and women's business enterprises at the greater of the amounts committed to by the Consultant for this Agreement in accordance with Form 1 of the MBE/WBE Utilization Plan.

f) Insurance

The Consultant, at its cost, shall secure and maintain at all times, unless specified otherwise, until completion of the term of this Contract the insurance specified below.

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Consultant's responsibility for payment of damages resulting from its operations under this Contract.

The Consultant shall require all Subcontractors to provide the insurance required in this Contract, or Consultant may provide the coverages for Subcontractors. All Subcontractors are subject to the same insurance requirements as Consultant except paragraph (d) Excess/Umbrella Liability or unless specified otherwise.

The Cook County Department of Risk Management maintains the right to modify, delete, alter or change these requirements.

Coverages

(a) Workers Compensation Insurance

Workers' Compensation shall be in accordance with the laws of the State of Illinois or any other applicable jurisdiction.

The Workers Compensation policy shall also include the following provisions:

Employers' Liability coverage with a limit of
\$1,000,000 each Accident
\$1,000,000 each Employee
\$1,000,000 Policy Limit for Disease

(b) Commercial General Liability Insurance

The Commercial General Liability shall be on an occurrence form basis (ISO Form CG0001 or equivalent) to cover bodily injury, personal injury, and property damage.

Each Occurrence	\$1,000,000
General Aggregate	\$2,000,000
Completed Operations Aggregate	\$2,000,000

The General Liability policy shall include the following coverages:

- (1) All premises and operations;
- (2) Contractual Liability;
- (3) Products/Completed Operations;
- (4) Severability of interest/separation of insureds clause

(c) **Commercial Automobile Liability Insurance**

When any vehicles are used in the performance of this contract, Consultant shall secure Automobile Liability Insurance for bodily injury and property damage arising from the Ownership, maintenance or use of owned, hired, and non-owned vehicles with a limit no less than \$1,000,000 per accident.

(d) **Excess/Umbrella Liability**

Such policy shall be excess over Commercial General Liability, Automobile Liability, and Employer's Liability with limits not less than the following amounts:

Each Occurrence: \$5,000,000

(e) **Technology Professional Liability (Errors & Omissions)**

The Consultant shall secure insurance appropriate to the Consultant's profession covering all claims arising out of the performance or nonperformance of professional services for the County under this Contract. This insurance shall remain in force for the life of the Consultant's obligations under this Contract and shall have a limit of liability of not less than \$2,000,000 per claim.

If any such policy is written on a claims-made form:

- (1) The retroactive coverage date shall be no later than the effective date of this contract.
- (2) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date on or before this contract effective date, the Consultant must maintain "extended reporting" coverage for a minimum of three (3) year after completion of services.

(f) **Network Security & Privacy Liability (Cyber)**

The Consultant shall secure coverage for first and third-party claims with limits not less than \$2,000,000 per occurrence or claim, \$2,000,000 aggregate. If any such policy is written on a claims-made form:

- (1) The retroactive coverage date shall be no later than the effective date of this contract.
- (2) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date on or before this contract effective date, the Consultant must maintain "extended reporting" coverage for a minimum of three (3) year after completion of services.

Additional requirements

(a) **Additional Insured**

The required insurance policies, with the exception of Workers Compensation and Errors & Omissions, shall name Cook County, its officials, employees, and agents as additional insureds with respect to operations performed on a primary and non-contributory basis. Any insurance or self-insurance maintained by Cook County shall be excess of the Consultant's insurance and shall not contribute with it. The full policy limits and scope of protection shall apply to Cook County as an additional insured even if they exceed the minimum insurance requirements specified herein.

All insurance companies providing coverage shall be licensed or approved by the Department of Insurance, State of Illinois, and shall have a financial rating no lower than (A-) VII as listed in A.M. Best's Key Rating Guide, current edition, or interim report. Companies with ratings lower than (A-) VII will be acceptable only upon consent of the Cook County Department of Risk Management. The insurance limits required herein may be satisfied by a combination of primary, umbrella and/or excess liability insurance policies.

(b) **Insurance Notices**

The Consultant shall provide the Office of the Chief Procurement Officer with thirty (30) days advance written notice in the event any required insurance will be cancelled, materially reduced or non-renewed. The Consultant shall secure replacement coverage to comply with the stated insurance requirements and provide new certificates of insurance to the Office of the Chief Procurement Officer.

Prior to the date on which the Consultant commences performance of its part of the work, the Consultant shall furnish to the Office of the Chief Procurement Officer certificates of insurance maintained by Consultant. The receipt of any certificate of insurance does not constitute Contract by the County that the insurance requirements have been fully met or that the insurance policies indicated on the certificate of insurance are in compliance with insurance required above.

In no event shall any failure of the County to receive certificates of insurance required hereof or to demand receipt of such Certificates of Insurance be construed as a waiver of the Consultant's obligations to obtain insurance pursuant to these insurance requirements.

(c) **Waiver of Subrogation Endorsements**

All insurance policies must contain a Waiver of Subrogation Endorsement in favor of Cook County.

g) Indemnification

The Consultant covenants and agrees to indemnify and save harmless the County and its commissioners, officials, employees, agents and representatives, and their respective heirs, successors and assigns, from and against any and all costs, expenses, attorney's fees, losses,

damages and liabilities incurred or suffered directly or indirectly from or attributable to any claims arising out of or incident to the performance or nonperformance of the Contract by the Consultant, or the acts or omissions of the officers, agents, employees, Consultants, subconsultants, licensees or invitees of the Consultant. The Consultant expressly understands and agrees that any Performance Bond or insurance protection required of the Consultant, or otherwise provided by the Consultant, shall in no way limit the responsibility to indemnify the County as hereinabove provided.

h) Confidentiality and Ownership of Documents

Consultant acknowledges and agrees that information regarding this Contract is confidential and shall not be disclosed, directly, indirectly or by implication, or be used by Consultant in any way, whether during the term of this Contract or at any time thereafter, except solely as required in the course of Consultant's performance hereunder. Consultant shall comply with the applicable privacy laws and regulations affecting County and will not disclose any of County's records, materials, or other data to any third party. Consultant shall not have the right to compile and distribute statistical analyses and reports utilizing data derived from information or data obtained from County without the prior written approval of County. In the event such approval is given, any such reports published and distributed by Consultant shall be furnished to County without charge.

All documents, data, studies, reports, work product or product created as a result of the performance of the Contract (the "Documents") shall be included in the Deliverables and shall be the property of the County of Cook. It shall be a breach of this Contract for the Consultant to reproduce or use any documents, data, studies, reports, work product or product obtained from the County of Cook or any Documents created hereby, whether such reproduction or use is for Consultant's own purposes or for those of any third party. During the performance of the Contract Consultant shall be responsible of any loss or damage to the Documents while they are in Consultant's possession, and any such loss or damage shall be restored at the expense of the Consultant. The County and its designees shall be afforded full access to the Documents and the work at all times.

i) Patents, Copyrights and Licenses

If applicable, Consultant shall furnish the Chief Procurement Officer with all licenses required for the County to utilize any software, including firmware or middleware, provided by Consultant as part of the Deliverables. Such licenses shall be clearly marked with a reference to the number of this County Contract. Consultant shall also furnish a copy of such licenses to the Chief Procurement Officer. Unless otherwise stated in these Contract documents, such licenses shall be perpetual and shall not limit the number of persons who may utilize the software on behalf of the County.

Consultant agrees to hold harmless and indemnify the County, its officers, agents, employees and affiliates from and defend, as permitted by Illinois law, at its own expense (including reasonable attorneys', accountants' and consultants' fees), any suit or proceeding brought against County based upon a claim that the ownership and/or use of equipment, hardware

and software or any part thereof provided to the County or utilized in performing Consultant's services constitutes an infringement of any patent, copyright or license or any other property right. In the event the use of any equipment, hardware or software or any part thereof is enjoined, Consultant with all reasonable speed and due diligence shall provide or otherwise secure for County, at the Consultant's election, one of the following: the right to continue use of the equipment, hardware or software; an equivalent system having the Specifications as provided in this Contract; or Consultant shall modify the system or its component parts so that they become non-infringing while performing in a substantially similar manner to the original system, meeting the requirements of this Contract.

j) Examination of Records and Audits

The Consultant agrees that the Cook County Auditor or any of its duly authorized representatives shall, until expiration of three (3) years after the final payment under the Contract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices, and records of the Consultant related to the Contract, or to Consultant's compliance with any term, condition or provision thereof. The Consultant shall be responsible for establishing and maintaining records sufficient to document the costs associated with performance under the terms of this Contract.

The Consultant further agrees that it shall include in all of its subcontracts hereunder a provision to the effect that the Subcontractor agrees that the Cook County Auditor or any of its duly authorized representatives shall, until expiration of three (3) years after final payment under the subcontract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices and records of such Subcontractor involving transactions relating to the subcontract, or to such Subcontractor compliance with any term, condition or provision thereunder or under the Contract.

In the event the Consultant receives payment under the Contract, reimbursement for which is later disallowed by the County, the Consultant shall promptly refund the disallowed amount to the County on request, or at the County's option, the County may credit the amount disallowed from the next payment due or to become due to the Consultant under any contract with the County.

To the extent this Contract pertains to Deliverables which may be reimbursable under the Medicaid or Medicare Programs, Consultant shall retain and make available upon request, for a period of four (4) years after furnishing services pursuant to this Agreement, the contract, books, documents and records which are necessary to certify the nature and extent of the costs of such services if requested by the Secretary of Health and Human Services or the Comptroller General of the United States or any of their duly authorized representatives.

If Consultant carries out any of its duties under the Agreement through a subcontract with a related organization involving a value of cost of \$10,000.00 or more over a 12 month period, Consultant will cause such subcontract to contain a clause to the effect that, until the expiration of four years after the furnishing of any service pursuant to said subcontract, the related organization will make available upon request of the Secretary of Health and Human Services or the Comptroller General of the United States or any of their duly authorized representatives, copies of said subcontract and any books, documents, records and other data of said related organization that are necessary to certify the nature and extent of such costs. This paragraph relating to the retention and production of documents is included because of possible application of Section 1861(v)(1)(I) of the Social Security Act to this Agreement; if this Section should be found to be inapplicable, then this paragraph shall be deemed inoperative and without force and effect.

k) Subcontracting or Assignment of Contract or Contract Funds

Once awarded, this Contract shall not be subcontracted or assigned, in whole or in part, without the advance written approval of the Chief Procurement Officer, which approval shall be granted or withheld at the sole discretion of the Chief Procurement Officer. In no case, however, shall such approval relieve the Consultant from its obligations or change the terms of the Contract. The Consultant shall not transfer or assign any Contract funds or any interest therein due or to become due without the advance written approval of the Chief Procurement Officer. The unauthorized subcontracting or assignment of the Contract, in whole or in part, or the unauthorized transfer or assignment of any Contract funds, either in whole or in part, or any interest therein, which shall be due or are to become due the Consultant shall have no effect on the County and are null and void.

Prior to the commencement of the Contract, the Consultant shall identify in writing to the Chief Procurement Officer the names of any and all Subcontractors it intends to use in the performance of the Contract by completing the Identification of Subcontractor/Supplier/Subconsultant Form ("ISF"). The Chief Procurement Officer shall have the right to disapprove any Subcontractor. All Subcontractors shall be subject to the terms of this Contract. Consultant shall incorporate into all subcontracts all of the provisions of the Contract which affect such subcontract. Copies of subcontracts shall be provided to the Chief Procurement Officer upon request.

The Consultant must disclose the name and business address of each Subcontractor, attorney, lobbyist, accountant, consultant and any other person or entity whom the Consultant has retained or expects to retain in connection with the Matter, as well as the nature of the relationship, and the total amount of the fees paid or estimated to be paid. The Consultant is not required to disclose employees who are paid or estimated to be paid. The Consultant is not required to disclose employees who are paid solely through the Consultant's regular payroll. "Lobbyist" means any person or entity who undertakes to influence any legislation or administrative action on behalf of any person or entity other than: (1) a not-for-profit entity, on an unpaid basis, or (2), himself.

“Lobbyist” also means any person or entity any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action. If the Consultant is uncertain whether a disclosure is required under this Section, the Consultant must either ask the County, whether disclosure is required or make the disclosure.

The County reserves the right to prohibit any person from entering any County facility for any reason. All Consultants and Subcontractor of the Consultant shall be accountable to the Chief Procurement Officer or his designee while on any County property and shall abide by all rules and regulations imposed by the County.

l) Professional Social Services

In accordance with 34-146, of the Cook County Procurement Code, all Consultants or providers providing services under a Professional Social Service Contracts or Professional Social Services Agreements, shall submit an annual performance report to the Using Agency, i.e., the agency for whom the Consultant or provider is providing the professional social services, that includes but is not limited to relevant statistics, an empirical analysis where applicable, and a written narrative describing the goals and objectives of the contract or agreement and programmatic outcomes. The annual performance report shall be provided and reported to the Cook County Board of Commissioners by the applicable Using Agency within forty-five days of receipt. Failure of the Consultant or provider to provide an annual performance report will be considered a breach of contract or agreement by the Consultant or provider, and may result in termination of the Contract or agreement.

For purposes of this Section, a Professional Social Service Contract or Professional Social Service Agreement shall mean any contract or agreement with a social service provider, including other governmental agencies, nonprofit organizations, or for profit business enterprises engaged in the field of and providing social services, juvenile justice, mental health treatment, alternative sentencing, offender rehabilitation, recidivism reduction, foster care, substance abuse treatment, domestic violence services, community transitioning services, intervention, or such other similar services which provide mental, social or physical treatment and services to individuals. Said Professional Social Service Contracts or Professional Social Service Agreements do not include CCHHS managed care contracts that CCHHS may enter into with health care providers.

ARTICLE 4) TERM OF PERFORMANCE

a) Term of Performance

This Agreement takes effect when approved by the Cook County Board and its term shall begin on November 1, 2024 ("**Effective Date**") and continue until October 31, 2027 or until this Agreement is terminated in accordance with its terms, whichever occurs first.

b) Timeliness of Performance

- i) Consultant must provide the Services and Deliverables within the term and within the time limits required under this Agreement, pursuant to the provisions of Section 4.a and Exhibit 1. Further, Consultant acknowledges that TIME IS OF THE ESSENCE and that the failure of Consultant to comply with the time limits described in this Section 4.b may result in economic or other losses to the County.
- ii) Neither Consultant nor Consultant's agents, employees nor Subcontractors are entitled to any damages from the County, nor is any party entitled to be reimbursed by the County, for damages, charges or other losses or expenses incurred by Consultant by reason of delays or hindrances in the performance of the Services, whether or not caused by the County.

c) Agreement Extension Option

The Chief Procurement Officer may at any time before this Agreement expires elect to renew this Agreement for two (2) additional one-year periods under the same terms and conditions as this original Agreement, except as provided otherwise in this Agreement, by notice in writing to Consultant. After notification by the Chief Procurement Officer, this Agreement must be modified to reflect the time extension in accordance with the provisions of Section 10.c.

ARTICLE 5) COMPENSATION

a) Basis of Payment

The County will pay Consultant according to the Schedule of Compensation in the attached Exhibit 2 for the successful completion of services.

b) Method of Payment

All invoices submitted by the Consultant shall be in accordance with the cost provisions contained in the Agreement and shall contain a detailed description of the Deliverables, including the quantity of the Deliverables, for which payment is requested. All invoices for services shall include itemized entries indicating the date or time period in which the services were provided, the amount of time spent performing the services (for hourly services, Consultant shall specify the amount of time spent performing work, for fixed fee services Consultant shall specify the percent complete per itemized service task, on each such date or during each such period), and a detailed description of the services provided during the period of the invoice. All Contracts for services that are procured as Sole Source must also contain a provision requiring the Contractor to submit itemized records indicating the dates that services were provided, a detailed description of the work performed on each such date, and the amount of time spent performing work on each such date (for hourly services, Consultant shall specify the amount of time spent performing work, for fixed fee services Consultant shall specify the percent complete per itemized

service task, on each such date or during each such period). All invoices shall reflect the amounts invoiced by and the amounts paid to the Consultant as of the date of the invoice. Invoices for new charges shall not include “past due” amounts, if any, which amounts must be set forth on a separate invoice. Consultant shall not be entitled to invoice the County for any late fees or other penalties.

In accordance with Section 34-177 of the Cook County Procurement Code, the County shall have a right to set off and subtract from any invoice(s) or Contract price, a sum equal to any fines and penalties, including interest, for any tax or fee delinquency and any debt or obligation owed by the Consultant to the County.

The Consultant acknowledges its duty to ensure the accuracy of all invoices submitted to the County for payment. By submitting the invoices, the Consultant certifies that all itemized entries set forth in the invoices are true and correct. The Consultant acknowledges that by submitting the invoices, it certifies that it has delivered the Deliverables, i.e., the goods, supplies, services or equipment set forth in the Agreement to the Using Agency, or that it has properly performed the services set forth in the Agreement. The invoice must also reflect the date or time period in which the services were provided, for hourly services the amount of time spent performing the services, for fixed fee services the percent complete per itemized service task, under the Agreement. The Consultant acknowledges that any inaccurate statements or negligent or intentional misrepresentations in the invoices shall result in the County exercising all remedies available to it in law and equity including, but not limited to, a delay in payment or non-payment to the Consultant, and reporting the matter to the Cook County Office of the Independent Inspector General.

When a Consultant receives any payment from the County for any supplies, equipment, goods, or services, it has provided to the County pursuant to its Agreement, the Consultant must make payment to its Subcontractors within 15 days after receipt of payment from the County, provided that such Subcontractor has satisfactorily provided the supplies, equipment, goods or services in accordance with the Contract and provided the Consultant with all of the documents and information required of the Consultant. The Consultant may delay or postpone payment to a Subcontractor when the Subcontractor’s supplies, equipment, goods, or services do not comply with the requirements of the Contract, the Consultant is acting in good faith, and not in retaliation for a Subcontractor exercising legal or contractual rights.

c) Funding

The source of funds for payments under this Agreement is identified in Exhibit 2, Schedule of Compensation. Payments under this Agreement must not exceed the dollar amount shown in Exhibit 2 without a written amendment in accordance with Section 10.c.

d) Non-Appropriation

If no funds or insufficient funds are appropriated and budgeted in any fiscal period of the County for payments to be made under this Agreement, then the County will notify Consultant in writing of that occurrence, and this Agreement will terminate on the earlier

of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Agreement are exhausted. Payments for Services completed to the date of notification will be made to Consultant. No payments will be made or due to Consultant and under this Agreement beyond those amounts appropriated and budgeted by the County to fund payments under this Agreement.

e) Taxes

Federal Excise Tax does not apply to materials purchased by the County by virtue of Exemption Certificate No. 36-75-0038K. Illinois Retailers' Occupation Tax, Use Tax and Municipal Retailers' Occupation Tax do not apply to deliverables, materials or services purchased by the County by virtue of statute. The price or prices quoted herein shall include any and all other federal and/or state, direct and/or indirect taxes which apply to this Contract. The County's State of Illinois Sales Tax Exemption Identification No. is E-9998-2013-07.

f) Price Reduction

If at any time after the contract award, Consultant makes a general price reduction in the price of any of the Deliverables, the equivalent price reduction based on similar quantities and/or considerations shall apply to this Contract for the duration of the Contract period. For purposes of this Section 5.f., Price Reduction, a general price reduction shall include reductions in the effective price charged by Consultant by reason of rebates, financial incentives, discounts, value points or other benefits with respect to the purchase of the Deliverables. Such price reductions shall be effective at the same time and in the same manner as the reduction Consultant makes in the price of the Deliverables to its prospective customers generally.

g) Consultant Credits

To the extent the Consultant gives credits toward future purchases of goods or services, financial incentives, discounts, value points or other benefits based on the purchase of the materials or services provided for under this Contract, such credits belong to the County and not any specific Using Agency. Consultant shall reflect any such credits on its invoices and in the amounts it invoices the County.

ARTICLE 6) DISPUTES

Any dispute arising under the Contract between the County and Consultant shall be decided by the Chief Procurement Officer. The complaining party shall submit a written statement detailing the dispute and specifying the specific relevant Contract provision(s) to the Chief Procurement Officer. Upon request of the Chief Procurement Officer, the party complained against shall respond to the complaint in writing within five days of such request. The Chief Procurement Officer will reduce her decision to writing and mail or otherwise furnish a copy thereof to the Consultant. The decision of the Chief Procurement Officer will be final and binding. Dispute resolution as provided herein shall be a condition precedent to any other action at law or in equity. However, unless a notice is issued by the Chief Procurement Officer indicating that additional time is required to review a

dispute, the parties may exercise their contractual remedies, if any, if no decision is made within sixty (60) days following notification to the Chief Procurement Officer of a dispute. No inference shall be drawn from the absence of a decision by the Chief Procurement Officer.

Notwithstanding a dispute, Consultant shall continue to discharge all its obligations, duties and responsibilities set forth in the Contract during any dispute resolution proceeding unless otherwise agreed to by the County in writing.

ARTICLE 7) COOPERATION WITH INSPECTOR GENERAL AND COMPLIANCE WITH ALL LAWS

The Consultant, Subcontractor, licensees, grantees or persons or businesses who have a County contract, grant, license, or certification of eligibility for County contracts shall abide by all of the applicable provisions of the Office of the Independent Inspector General Ordinance (Section 2-281 et. seq. of the Cook County Code of Ordinances). Failure to cooperate as required may result in monetary and/or other penalties.

The Consultant shall observe and comply with the laws, ordinances, regulations and codes of the Federal, State, County and other local government agencies which may in any manner affect the performance of the Contract including, but not limited to, those County Ordinances set forth in the Certifications attached hereto and incorporated herein. Assurance of compliance with this requirement by the Consultant's employees, agents or Subcontractor shall be the responsibility of the Consultant.

The Consultant shall secure and pay for all federal, state and local licenses, permits and fees required hereunder.

ARTICLE 8) SPECIAL CONDITIONS

a) Warranties and Representations

In connection with signing and carrying out this Agreement, Consultant:

- i) warrants that Consultant is appropriately licensed under Illinois law to perform the Services required under this Agreement and will perform no Services for which a professional license is required by law and for which Consultant is not appropriately licensed;
- ii) warrants it is financially solvent; it and each of its employees, agents and Subcontractors of any tier are competent to perform the Services required under this Agreement; and Consultant is legally authorized to execute and perform or cause to be performed this Agreement under the terms and conditions stated in this Agreement;
- iii) warrants that it will not knowingly use the services of any ineligible consultant or

Subcontractor for any purpose in the performance of its Services under this Agreement;

- iv) warrants that Consultant and its Subcontractors are not in default at the time this Agreement is signed, and has not been considered by the Chief Procurement Officer to have, within 5 years immediately preceding the date of this Agreement, been found to be in default on any contract awarded by the County;
- v) represents that it has carefully examined and analyzed the provisions and requirements of this Agreement; it understands the nature of the Services required; from its own analysis it has satisfied itself as to the nature of all things needed for the performance of this Agreement; this Agreement is feasible of performance in accordance with all of its provisions and requirements, and Consultant warrants it can and will perform, or cause to be performed, the Services in strict accordance with the provisions and requirements of this Agreement;
- vi) represents that Consultant and, to the best of its knowledge, its Subcontractors are not in violation of the provisions of the Illinois Criminal Code, 720 ILCS 5/33E as amended; and
- vii) acknowledges that any certification, affidavit or acknowledgment made under oath in connection with this Agreement is made under penalty of perjury and, if false, is also cause for termination under Sections 9.a and 9.c.

b) Ethics

- i) In addition to the foregoing warranties and representations, Consultant warrants:
 - (1) no officer, agent or employee of the County is employed by Consultant or has a financial interest directly or indirectly in this Agreement or the compensation to be paid under this Agreement except as may be permitted in writing by the Board of Ethics.
 - (2) no payment, gratuity or offer of employment will be made in connection with this Agreement by or on behalf of any Subcontractors to the prime Consultant or higher tier Subcontractors or anyone associated with them, as an inducement for the award of a subcontract or order.

c) Joint and Several Liability

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

d) Business Documents

At the request of the County, Consultant must provide copies of its latest articles of incorporation, by-laws and resolutions, or partnership or joint venture agreement, as applicable.

e) Conflicts of Interest

- i) No member of the governing body of the County or other unit of government and no other officer, employee or agent of the County or other unit of government who exercises any functions or responsibilities in connection with the Services to which this Agreement pertains is permitted to have any personal interest, direct or indirect, in this Agreement. No member of or delegate to the Congress of the United States or the Illinois General Assembly and no Commissioner of the Cook County Board or County employee is allowed to be admitted to any share or part of this Agreement or to any financial benefit to arise from it.
- ii) Consultant covenants that it, and to the best of its knowledge, its Subcontractors if any (collectively, "**Consulting Parties**"), presently have no direct or indirect interest and will not acquire any interest, direct or indirect, in any project or contract that would conflict in any manner or degree with the performance of its Services under this Agreement.
- iii) Upon the request of the County, Consultant must disclose to the County its past client list and the names of any clients with whom it has an ongoing relationship. Consultant is not permitted to perform any Services for the County on applications or other documents submitted to the County by any of Consultant's past or present clients. If Consultant becomes aware of a conflict, it must immediately stop work on the assignment causing the conflict and notify the County.
- iv) Without limiting the foregoing, if the Consulting Parties assist the County in determining the advisability or feasibility of a project or in recommending, researching, preparing, drafting or issuing a request for proposals or bid specifications for a project, the Consulting Parties must not participate, directly or indirectly, as a prime, Subcontractor or joint venturer in that project or in the preparation of a proposal or bid for that project during the term of this Agreement or afterwards. The Consulting Parties may, however, assist the County in reviewing the proposals or bids for the project if none of the Consulting Parties have a relationship with the persons or entities that submitted the proposals or bids for that project.

- v) The Consultant further covenants that, in the performance of this Agreement, no person having any conflicting interest will be assigned to perform any Services or have access to any confidential information, as defined in Section 3.h of this Agreement. If the County, by the Chief Procurement Officer in his reasonable judgment, determines that any of Consultant's Services for others conflict with the Services Consultant is to render for the County under this Agreement, Consultant must terminate such other services immediately upon request of the County.
- vi) Furthermore, if any federal funds are to be used to compensate or reimburse Consultant under this Agreement, Consultant represents that it is and will remain in compliance with federal restrictions on lobbying set forth in Section 319 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal year 1990, 31 U.S.C. § 1352, and related rules and regulations set forth at 54 Fed. Reg. 52,309 ff. (1989), as amended. If federal funds are to be used, Consultant must execute a Certification Regarding Lobbying, which will be attached as an exhibit and incorporated by reference as if fully set forth here.

f) Non-Liability of Public Officials

Consultant and any assignee or Subcontractor of Consultant must not charge any official, employee or agent of the County personally with any liability or expenses of defense or hold any official, employee or agent of the County personally liable to them under any term or provision of this Agreement or because of the County's execution, attempted execution or any breach of this Agreement.

ARTICLE 9) EVENTS OF DEFAULT, REMEDIES, TERMINATION, SUSPENSION AND RIGHT TO OFFSET

a) Events of Default Defined

The following constitute events of default:

- i) Any material misrepresentation, whether negligent or willful and whether in the inducement or in the performance, made by Consultant to the County.
- ii) Consultant's material failure to perform any of its obligations under this Agreement including the following:
 - (a) Failure due to a reason or circumstances within Consultant's reasonable control to perform the Services with sufficient personnel and equipment or with sufficient material to ensure the performance of the Services;

- (b) Failure to perform the Services in a manner reasonably satisfactory to the Chief Procurement Officer or inability to perform the Services satisfactorily as a result of insolvency, filing for bankruptcy or assignment for the benefit of creditors;
 - (c) Failure to promptly re-perform within a reasonable time Services that were rejected as erroneous or unsatisfactory;
 - (d) Discontinuance of the Services for reasons within Consultant's reasonable control; and
 - (e) Failure to comply with any other material term of this Agreement, including the provisions concerning insurance and nondiscrimination.
- iii) Any change in ownership or control of Consultant without the prior written approval of the Chief Procurement Officer, which approval the Chief Procurement Officer will not unreasonably withhold.
 - iv) Consultant's default under any other agreement it may presently have or may enter into with the County during the life of this Agreement. Consultant acknowledges and agrees that in the event of a default under this Agreement the County may also declare a default under any such other Agreements.
 - v) Failure to comply with Article 7 in the performance of the Agreement.
 - vi) Consultant's repeated or continued violations of County ordinances unrelated to performance under the Agreement that in the opinion of the Chief Procurement Officer indicate a willful or reckless disregard for County laws and regulations.

b) Remedies

The occurrence of any event of default permits the County, at the County's sole option, to declare Consultant in default. The Chief Procurement Officer may in his sole discretion give Consultant an opportunity to cure the default within a certain period of time, which period of time must not exceed 30 days, unless extended by the Chief Procurement Officer. Whether to declare Consultant in default is within the sole discretion of the Chief Procurement Officer and neither that decision nor the factual basis for it is subject to review or challenge under the Disputes provision of this Agreement.

The Chief Procurement Officer will give Consultant written notice of the default, either in the form of a cure notice ("**Cure Notice**"), or, if no opportunity to cure will be granted, a default notice ("**Default Notice**"). If the Chief Procurement Officer gives a Default Notice, he will also indicate any present intent he may have to terminate this Agreement, and the decision to terminate (but not the decision not to terminate) is final and effective upon giving the notice. The Chief Procurement Officer may give a Default Notice if Consultant fails to affect a cure within the cure period given in a Cure Notice. When a Default Notice with intent to terminate is given as provided in this Section 9.b and Article 11, Consultant must discontinue any Services, unless otherwise directed in the notice, and deliver all materials accumulated in the performance of this Agreement, whether completed or in the process, to the County. After giving a Default Notice, the County may invoke any or all of the following remedies:

- i) The right to take over and complete the Services, or any part of them, at Consultant's expense and as agent for Consultant, either directly or through others, and bill Consultant for the cost of the Services, and Consultant must pay the difference between the total amount of this bill and the amount the County would have paid Consultant under the terms and conditions of this Agreement for the Services that were assumed by the County as agent for the Consultant under this Section 9.b;
- ii) The right to terminate this Agreement as to any or all of the Services yet to be performed effective at a time specified by the County;
- iii) The right of specific performance, an injunction or any other appropriate equitable remedy;
- iv) The right to money damages;
- v) The right to withhold all or any part of Consultant's compensation under this Agreement;
- vi) The right to consider Consultant non-responsible in future contracts to be awarded by the County.

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

The remedies under the terms of this Agreement are not intended to be exclusive of any other remedies provided, but each and every such remedy is cumulative and is in addition to any other remedies, existing now or later, at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any event of default impairs any such right or power, nor is it a waiver of any event of default nor acquiescence in it, and every such right and power may be exercised from time to time and as often as the County considers expedient.

c) Early Termination

In addition to termination under Sections 9.a and 9.b of this Agreement, the County may terminate this Agreement, or all or any portion of the Services to be performed under it, at any time by a notice in writing from the County to Consultant. The County will give notice to Consultant in accordance with the provisions of Article 11. The effective date of termination will be the date the notice is received by Consultant or the date stated in the notice, whichever is later. If the County elects to terminate this Agreement in full, all Services to be provided under it must cease and all materials that may have been accumulated in performing this Agreement, whether completed or in the process, must be delivered to the County effective 10 days after the date the notice is considered received as provided under Article 11 of this Agreement (if no date is given) or upon the effective date stated in the notice.

After the notice is received, Consultant must restrict its activities, and those of its Subcontractors, to winding down any reports, analyses, or other activities previously begun. No costs incurred after the effective date of the termination are allowed. Payment for any Services actually and satisfactorily performed before the effective date of the termination is on the same basis as set forth in Article 5, but if any compensation is described or provided for on the basis of a period longer than 10 days, then the compensation must be prorated accordingly. No amount of compensation, however, is permitted for anticipated profits on unperformed Services. The County and Consultant must attempt to agree on the amount of compensation to be paid to Consultant, but if not agreed on, the dispute must be settled in accordance with Article 6 of this Agreement. The payment so made to Consultant is in full settlement for all Services satisfactorily performed under this Agreement.

Consultant must include in its contracts with Subcontractors an early termination provision in form and substance equivalent to this early termination provision to prevent claims against the County arising from termination of subcontracts after the early termination. Consultant will not be entitled to make any early termination claims against the County resulting from any Subcontractor's claims against Consultant or the County to the extent inconsistent with this provision.

If the County's election to terminate this Agreement for default under Sections 9.a and 9.b is determined in a court of competent jurisdiction to have been wrongful, then in that case the termination is to be considered to be an early termination under this Section 9.c.

d) Suspension

The County may at any time request that Consultant suspend its Services, or any part of them, by giving 15 days prior written notice to Consultant or upon informal oral, or even no notice, in the event of emergency. No costs incurred after the effective date of such suspension are allowed. Consultant must promptly resume its performance of the Services under the same terms and conditions as stated in this Agreement upon written notice by the Chief Procurement Officer and such equitable extension of time as may be mutually agreed upon by the Chief Procurement Officer and Consultant when necessary for continuation or completion of Services. Any additional costs or expenses actually incurred by Consultant as a result of recommencing the Services must be treated in accordance with the compensation provisions under Article 5 of this Agreement.

No suspension of this Agreement is permitted in the aggregate to exceed a period of 45 days within any one year of this Agreement. If the total number of days of suspension exceeds 45 days, Consultant by written notice may treat the suspension as an early termination of this Agreement under Section 9.c.

e) Right to Offset

In connection with performance under this Agreement, the County may offset any excess costs incurred:

- i) if the County terminates this Agreement for default or any other reason resulting from Consultant's performance or non-performance;
- ii) if the County exercises any of its remedies under Section 9.b of this Agreement;
or
- iii) if the County has any credits due or has made any overpayments under this Agreement.

The County may offset these excess costs by use of any payment due for Services completed before the County terminated this Agreement or before the County exercised any remedies. If the amount offset is insufficient to cover those excess costs, Consultant is liable for and must promptly remit to the County the balance upon written demand for it. This right to offset is in addition to and not a limitation of any other remedies available to the County.

f) Delays

Consultant agrees that no charges or claims for damages shall be made by Consultant for any delays or hindrances from any cause whatsoever during the progress of any portion of this Contract.

g) Prepaid Fees

In the event this Contract is terminated by either party, for cause or otherwise, and the County has prepaid for any Deliverables, Consultant shall refund to the County, on a prorated basis to the effective date of termination, all amounts prepaid for Deliverables not actually provided as of the effective date of the termination. The refund shall be made within fourteen (14) days of the effective date of termination.

ARTICLE 10) GENERAL CONDITIONS

a) Entire Agreement

i) General

This Agreement, and the exhibits attached to it and incorporated in it, constitute the entire agreement between the parties and no other warranties, inducements, considerations, promises or interpretations are implied or impressed upon this Agreement that are not expressly addressed in this Agreement.

ii) No Collateral Agreements

Consultant acknowledges that, except only for those representations, statements or promises expressly contained in this Agreement and any exhibits attached to it and incorporated by reference in it, no representation, statement or promise, oral or in writing, of any kind whatsoever, by the County, its officials, agents or employees, has induced Consultant to enter into this Agreement or has been relied upon by Consultant, including any with reference to:

- (a) the meaning, correctness, suitability or completeness of any provisions or requirements of this Agreement;
- (b) the nature of the Services to be performed;
- (c) the nature, quantity, quality or volume of any materials, equipment, labor and other facilities needed for the performance of this Agreement;
- (d) the general conditions which may in any way affect this Agreement or its performance;
- (e) the compensation provisions of this Agreement; or
- (f) any other matters, whether similar to or different from those referred to in (a) through (e) immediately above, affecting or having any connection with this Agreement, its negotiation, any discussions of its performance or those employed or connected or concerned with it.

iii) **No Omissions**

Consultant acknowledges that Consultant was given an opportunity to review all documents forming this Agreement before signing this Agreement in order that it might request inclusion in this Agreement of any statement, representation, promise or provision that it desired or on that it wished to place reliance. Consultant did so review those documents, and either every such statement, representation, promise or provision has been included in this Agreement or else, if omitted, Consultant relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Agreement in its entirety without claiming reliance on it or making any other claim on account of its omission.

b) **Counterparts**

This Agreement is comprised of several identical counterparts, each to be fully signed by the parties and each to be considered an original having identical legal effect.

c) **Contract Amendments**

The parties may during the term of the Contract make amendments to the Contract but only as provided in this section. Such amendments shall only be made by mutual agreement in writing.

In the case of Contracts not approved by the Board, the Chief Procurement Officer may amend a contract provided that any such amendment does not extend the Contract by more than one (1) year, and further provided that the total cost of all such amendments does not increase the total amount of the Contract beyond \$150,000. Such action may only be made with the advance written approval of the Chief Procurement Officer. If the amendment extends the Contract beyond one (1) year or increases the total award amount beyond \$150,000, then Board approval will be required.

No Using Agency or employee thereof has authority to make any amendments to this Contract. Any amendments to this Contract made without the express written approval of the Chief Procurement Officer is void and unenforceable.

Consultant is hereby notified that, except for amendments which are made in accordance with this Section 10.c. Contract Amendments, no Using Agency or employee thereof has authority to make any amendment to this Contract.

d) Governing Law and Jurisdiction

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

e) Severability

If any provision of this Agreement is held or considered to be or is in fact invalid, illegal, inoperative or unenforceable as applied in any particular case in any jurisdiction or in all cases because it conflicts with any other provision or provisions of this Agreement or of any constitution, statute, ordinance, rule of law or public policy, or for any other reason, those circumstances do not have the effect of rendering the provision in question invalid, illegal, inoperative or unenforceable in any other case or circumstances, or of rendering any other provision or provisions in this Agreement invalid, illegal, inoperative or unenforceable to any extent whatsoever. The invalidity, illegality, inoperativeness or unenforceability of any one or more phrases, sentences, clauses or sections in this Agreement does not affect the remaining portions of this Agreement or any part of it.

f) Assigns

All of the terms and conditions of this Agreement are binding upon and inure to the benefit of the parties and their respective legal representatives, successors and assigns.

g) Cooperation

Consultant must at all times cooperate fully with the County and act in the County's best interests. If this Agreement is terminated for any reason, or if it is to expire on its own terms, Consultant must make every effort to assure an orderly transition to another provider of the Services, if any, orderly demobilization of its own operations in connection with the Services, uninterrupted provision of Services during any transition period and must otherwise comply with the reasonable requests and requirements of the Using Agency in connection with the termination or expiration.

h) Waiver

Nothing in this Agreement authorizes the waiver of a requirement or condition contrary to law or ordinance or that would result in or promote the violation of any federal, state or local law or ordinance.

Whenever under this Agreement the County by a proper authority waives Consultant's performance in any respect or waives a requirement or condition to either the County's or Consultant's performance, the waiver so granted, whether express or implied, only applies to the particular instance and is not a waiver forever or for subsequent instances of the performance, requirement or condition. No such waiver is a modification of this Agreement regardless of the number of times the County may have waived the performance, requirement or condition. Such waivers must be provided to Consultant in writing.

i) Independent Consultant

This Agreement is not intended to and will not constitute, create, give rise to, or otherwise recognize a joint venture, partnership, corporation or other formal business association or organization of any kind between Consultant and the County. The rights and the obligations of the parties are only those expressly set forth in this Agreement. Consultant must perform under this Agreement as an independent Consultant and not as a representative, employee, agent, or partner of the County.

This Agreement is between the County and an independent Consultant and, if Consultant is an individual, nothing provided for under this Agreement constitutes or implies an employer-employee relationship such that:

- i) The County will not be liable under or by reason of this Agreement for the payment of any compensation award or damages in connection with the Consultant performing the Services required under this Agreement.
- ii) Consultant is not entitled to membership in the County Pension Fund, Group Medical Insurance Program, Group Dental Program, Group Vision Care, Group Life Insurance Program, Deferred Income Program, vacation, sick leave, extended sick leave, or any other benefits ordinarily provided to individuals employed and paid through the regular payrolls of the County.
- iv) The County is not required to deduct or withhold any taxes, FICA or other deductions from any compensation provided to the Consultant.

j) Governmental Joint Purchasing Agreement

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

In the event that other agencies participate in a joint procurement, the County reserves the right to renegotiate the price to accommodate the larger volume.

k) Comparable Government Procurement

As permitted by the County of Cook, other government entities, if authorized by law, may wish to purchase the goods, supplies, services or equipment under the same terms and conditions contained in this Contract (i.e., comparable government procurement). Each entity wishing to reference this Contract must have prior authorization from the County of Cook and the Consultant. If such participation is authorized, all purchase orders will be issued directly from and shipped directly to the entity requiring the goods, supplies, equipment or services supplies/services. The County shall not be held responsible for any orders placed, deliveries made or payment for the goods, supplies, equipment or services supplies/services ordered by these entities. Each entity reserves the right to determine the amount of goods, supplies, equipment or services it wishes to purchase under this Contract.

l) Force Majeure

Neither Consultant nor County shall be liable for failing to fulfill any obligation under this Contract if such failure is caused by an event beyond such party's reasonable control and which is not caused by such party's fault or negligence. Such events shall be limited to acts of God, acts of war, fires, lightning, floods, epidemics, or riots.

m) Federal Clauses

The following provisions apply to all Contracts which are funded in whole or in part with federal funds including without limitation the following.

1. Interest of Members of or Delegates to the United States Congress

In accordance with 41 U.S.C. § 22, the Contractor agrees that it will not admit any member of or delegate to the United States Congress to any share or part of the Contract or any benefit derived therefrom.

2. False or Fraudulent Statements and Claims

(a) The Contractor recognizes that the requirements of the Program Fraud Civil Remedies Act of 1986, as amended, 49 U.S.C. §§ 3081 et seq and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to the Contract. Accordingly, by signing the Contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, or it may make pertaining to the Contract, including without limitation any invoice for its services. In addition to other penalties that may be applicable, the Contractor also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, on the Contractor to the extent the Federal Government deems appropriate.

(b) The Contractor also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, or certification to the County or Federal Government in connection with an urbanized area formula project financed with Federal assistance

authorized by 49 U.S.C. § 5307, the Government reserves the right to impose on the Contractor the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1), to the extent the Federal Government deems appropriate.

3. Federal Interest in Patents

(a) General. If any invention, improvement, or discovery of the Contractor is conceived or first actually reduced to practice in the course of or under the Contract, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Contractor agrees to notify County immediately and provide a detailed report.

(b) Federal Rights. Unless the Federal Government later makes a contrary determination in writing, the rights and responsibilities of the County, Contractor, and the Federal Government pertaining to that invention, improvement, or discovery will be determined in accordance with applicable Federal laws and regulations, including any waiver thereof. Unless the Federal Government later makes a contrary determination in writing, the Contractor agrees that, irrespective of its status or the status of any subcontractor at any tier (e.g., a large business, small business, non profit organization, institution of higher education, individual), the Contractor agrees it will transmit to the Federal Government those rights due the Federal Government in any invention resulting from the contract.

4. Federal Interest in Data and Copyrights

(a) Definition. The term "subject data" used in this section means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Contract. Examples include, but are not limited, to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to Contract administration.

(b) Federal Restrictions. The following restrictions apply to all subject data first produced in the performance of the Contract. Except as provided in the Contract and except for its own internal use, the Contractor may not publish or publicly reproduce subject data in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of the County and the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public.

(c) Federal Rights in Data and Copyrights. In accordance with subparts 34 and 36 of the Common Rule, the County and the Federal Government reserve a royalty free, non exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for County or Federal Government purposes, the types of subject data described below. Without the copyright owner's consent, the County and Federal Government may not extend their license to other parties.

(1) Any subject data developed under the contract or subagreement financed by a federal Grant Agreement or Cooperative Agreement, whether or not a copyright has been obtained; and

- (2) Any rights of copyright which the Contractor purchases ownership with Federal assistance.
- (d) Special Federal Rights for Planning Research and Development Projects. When the Federal Government provides financial assistance for a planning, research, development, or demonstration project, its general intention is to increase public knowledge, rather than limit the benefits of the project to participants in the project. Therefore, unless the Federal Government determines otherwise, the Contractor on a planning, research, development, or demonstration project agrees that, in addition to the rights in data and copyrights set forth above, the County or Federal Government may make available to any third party either a license in the copyright to the subject data or a copy of the subject data. If the project is not completed for any reason whatsoever, all data developed under the project will become subject data and will be delivered as the County or Federal Government may direct. This subsection, however, does not apply to adaptations of automatic data processing equipment or previously existing software programs for the County's use whose costs are financed with Federal transportation funds for capital projects.
- (e) Hold Harmless. Unless prohibited by state law, upon request by the County or the Federal Government, the Contractor agrees to indemnify, save, and hold harmless the County and the Federal Government and their officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under the Contract. The Contractor will not be required to indemnify the County or Federal Government for any such liability arising out of the wrongful acts of employees or agents of the County or Federal Government.
- (f) Restrictions on Access to Patent Rights. Nothing contained in this section on rights in data will imply a license to the County or Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the County or Federal Government under any patent.
- (g) Application on Materials Incorporated into Project. The requirements of Subsections 2, 3, and 4 of this Section do not apply to material furnished by the County and incorporated into the work.

5. Records and Audits

Contractor will deliver or cause to be delivered all documents (including but not limited to all Deliverables and supporting data, records, graphs, charts and notes) prepared by or for the County under the terms of this Agreement to the County promptly in accordance with the time limits prescribed in this Contract, and if no time limit is specified, then upon reasonable demand therefor or upon termination or completion of the Services hereunder. In the event of the failure by the Contractor to make such delivery, then and in that event, the Contractor will pay to County reasonable damages the County may sustain by reason thereof.

The County and the Federal Government will have the right to audit all payments made to the Contractor under this Agreement. Any payments to the Contractor which exceed the

amount to which the Contractor is entitled under the terms of this Agreement will be subject to set off.

The Contractor will keep and retain records relating to this Agreement and will make such records available to representatives of the County and the Federal Government, including without limitation the sponsoring federal agency, other participating agencies, and the Comptroller General of the United States, at reasonable times during the performance of this Agreement and for at least five years after termination of this Agreement for purposes of audit, inspection, copying, transcribing and abstracting.

No provision in this Agreement granting the County or the Federal Government a right of access to records is intended to impair, limit or affect any right of access to such records which the County or the Federal Government would have had in the absence of such provisions.

6. Environmental Requirements

The Contractor recognizes that many Federal and state laws imposing environmental and resource conservation requirements may apply to the Contract. Some, but not all, of the major Federal Laws that may affect the Contract include: the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq.; the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. and scattered sections of 29 U.S.C.; the Clean Water Act, as amended, scattered sections of 33 U.S.C. and 12 U.S.C.; the Resource Conservation and Recovery Act, as amended, 42 U.S.C. §§ 6901 et seq.; and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq. The Contractor also recognizes that U.S. EPA, U.S. DOT and other agencies of the Federal Government have issued and are expected in the future to issue regulations, guidelines, standards, orders, directives, or other requirements that may affect the Contract. Thus, the Contractor agrees to adhere to, and impose on its subcontractors, any such Federal requirements as the Federal Government may now or in the future promulgate. Listed below are requirements of particular concern.

The Contractor acknowledges that this list does not constitute the Contractor's entire obligation to meet all Federal environmental and resource conservation requirements. The Contractor will include these provisions in all subcontracts.

(a) Environmental Protection. The Contractor agrees to comply with the applicable requirements of the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq. in accordance with Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations," 59 Fed. Reg. 7629, Feb. 16, 1994; U.S. DOT statutory requirements on environmental matters at 49 U.S.C. § 5324(b); Council on Environmental Quality regulations on compliance with the National Environmental Policy Act of 1969, as amended, 40 C.F.R. Part 1500 et seq.; and U.S. DOT regulations, "Environmental Impact and Related Procedures," 23 C.F.R. Part 771 and 49 C.F.R. Part 622.

(b) Air Quality. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. Specifically, the Contractor agrees to comply with applicable requirements of U.S. EPA regulations, "Conformity to State of Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," 40 C.F.R. Part 51, Subpart T; and "Determining Conformity of

Federal Actions to State or Federal Implementation Plans,” 40 C.F.R. Part 93. The Contractor further agrees to report and require each subcontractor at any tier to report any violation of these requirements resulting from any Contract implementation activity to the County and the appropriate U.S. EPA Regional Office.

(c) Clean Water. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 et seq. The Contractor further agrees to report and require each subcontractor at any tier to report any violation of these requirements resulting from any Contract implementation activity to the County and the appropriate U.S. EPA Regional Office.

(d) List of Violating Facilities. The Contractor agrees that any facility to be used in the performance of the Contract or to benefit from the Contract will not be listed on the U.S. EPA List of Violating Facilities (“List”), and the Contractor will promptly notify the County if the Contractor receives any communication from the U.S. EPA that such a facility is under consideration for inclusion on the List.

(e) Preference for Recycled Products. To the extent practicable and economically feasible and to the extent that it does not reduce or impair the quality of the work, the Contractor agrees to use recycled products in performance of the Contract pursuant to U.S. Environment Protection Agency (U.S. EPA) guidelines at 40 C.F.R. Parts 247 253, which implement section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962.

7. No Exclusionary or Discriminatory Specifications

Apart from inconsistent requirements imposed by Federal statute or regulations, the Contractor agrees that it will comply with the requirements of 49 U.S.C. § 5323(h)(2) by refraining from using any Federal assistance to support subcontracts procured using exclusionary or discriminatory specifications.

8. No Federal Government Obligations to Third Parties

The Contractor agrees that, absent the Federal Government's express written consent, the Federal Government will not be subject to any obligations or liabilities to any contractor or any other person not a party to the Grant Agreement or Cooperative Agreement between the County and the Federal Government which is a source of funds for this Contract. Notwithstanding any concurrence provided by the Federal Government in or approval of any solicitation, agreement, or contract, the Federal Government continues to have no obligations or liabilities to any party, including the Contractor.

9. Allowable Costs

Notwithstanding any compensation provision to the contrary, the Contractor's compensation under this Contract will be limited to those amounts which are allowable and allocable to the Contract in accordance with OMB Circular A 87 and the regulations in 49 C.F.R. Part 18. To the extent that an audit reveals that the Contractor has received payment in excess of such amounts, the County may offset such excess payments against any future payments due to the Contractor and, if no future payments are due or if future payments are less than such excess, the Contractor will promptly refund the amount of the excess payments to the County.

10. Trade Restrictions

Contractor certifies that neither it nor any Subcontractor:

- (a) is owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- (b) has knowingly entered into any contract or subcontract with a person that is a citizen or national of a foreign country on said list, nor is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;
- (c) will procure, subcontract for, or recommend any product that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no Notice to Proceed will be issued to an entity who is unable to certify to the above. If Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the USDOT may direct, through the County, cancellation of the Contract at no cost to the Government.

Further, Contractor agrees that it will incorporate this provision for certification without modification in each subcontract. Contractor may rely on the certification of a prospective Subcontractor unless it has knowledge that the certification is erroneous. Contractor will provide immediate written notice to the County if it learns that its certification or that of a Subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. Each Subcontractor must agree to provide written notice to Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances. Nothing contained in the foregoing will be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision.

The knowledge and information of the Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 100.

11. Contract Work Hours and Safety Standards Act

If applicable according to their terms, the Contractor agrees to comply and assures compliance with sections 102 and 107 of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 327 through 333, and implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5; and U.S. DOL regulations, "Safety and Health Regulations for Construction," 29 C.F.R. Part 1926. In addition to other requirements that may apply:

- (a) In accordance with section of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 327 through 332, the Contractor agrees and assures that, for the Contract, the wages of every mechanic and laborer will be computed on the basis of a standard work week of 40 hours, and that each worker will be compensated for work

exceeding the standard work week at a rate of not less than 1.5 times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The Contractor agrees that determinations pertaining to these requirements will be made in accordance with applicable U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Nonconstruction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.

(b) In accordance with section 107 of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. § 333, the contractor agrees and assures that no laborer or mechanic working on a construction contract will be required to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his or her health and safety, as determined in accordance with U.S. DOL regulations, "Safety and Health Regulations for Construction," 29 C.F.R. Part 1926.

12. Copyright Ownership

Consultant and the County intend that, to the extent permitted by law, the Deliverables to be produced by Consultant at the County's instance and expense pursuant to this Agreement are conclusively deemed "works made for hire" within the meaning and purview of Section 101 of the United States Copyright Act, 17 U.S.C. §101 et seq. (the "Copyright Act"), and that the County will be the copyright owner of the Deliverables and of all aspects, elements and components of them in which copyright can subsist.

To the extent that any Deliverable does not qualify as a "work made for hire," Consultant irrevocably grants, conveys, bargains, sells, assigns, transfers and delivers to the County, its successors and assigns, all right, title and interest in and to the copyrights and all U.S. and foreign copyright registrations, copyright applications and copyright renewals for them, and other intangible, intellectual property embodied in or pertaining to the Deliverables prepared for the County under this Agreement, free and clear of any liens, claims or other encumbrances, to the fullest extent permitted by law. Consultant will execute all documents and perform all acts that the County may reasonably request in order to assist the County in perfecting its rights in and to the copyrights relating to the Deliverables, at the sole expense of the County.

Consultant warrants to County, its successors and assigns, that on the date of transfer Consultant is the lawful owner of good and marketable title in and to the copyrights for the Deliverables and has the legal rights to fully assign them. Consultant further warrants that it has not assigned any copyrights nor granted any licenses, exclusive or nonexclusive, to any other party, and that it is not a party to any other agreements or subject to any other restrictions with respect to the Deliverables. Consultant warrants and represents that the Deliverables are complete and comprehensive, and the Deliverables are a work of original authorship.

13. Visual Rights Act Waiver

The Consultant/Contractor waives any and all rights that may be granted or conferred under Section 106A and Section 113 of the United States Copyright Act, (17 U.S.C. § 101 et seq.) (the "Copyright Act") in any work of visual art that may be provided pursuant to this Agreement. Also, the Consultant/Contractor represents and warrants that the

Consultant/Contractor has obtained a waiver of Section 106A and Section 113 of the Copyright Act as necessary from any employees and subcontractors, if any.

14. Equal Employment Opportunity

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared

ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

15. Copeland "Anti-Kickback" Act (40 U.S.C. 3145))

All contracts and subgrants in excess of \$2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.

16. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

Where applicable, all contracts awarded by recipients in excess of \$100,000 that involve the employment of mechanics or laborers shall include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR part 5). Under 40 U.S.C. 3702 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

17. Rights to Inventions Made Under a Contract or Agreement

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

18. Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended

Contracts and subgrants of amounts in excess of \$150,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

19. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal

appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

20. Debarment and Suspension (E.O.s 12549 and 12689)

No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

21. Prohibition on Certain Telecommunications and Surveillance Equipment

Recipients and subrecipients are prohibited from using loan or grant funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232, section 889](#), covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities), Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities), or by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

ARTICLE 11) NOTICES

All notices required pursuant to this Contract shall be in writing and addressed to the parties at their respective addresses set forth below. All such notices shall be deemed duly given if hand delivered or if deposited in the United States mail, postage prepaid, registered or certified, return receipt requested. Notice as provided herein does not waive service of summons or process.

If to the County: Cook County Government
 Bureau of Technology
 161 N. Clark, Suite 500
 Chicago, IL 60601
 Attention: Department Director

and

Cook County Chief Procurement Officer
161 N. Clark, Suite 2300
Chicago, Illinois 60601
(Include County Contract Number on all notices)

If to Consultant: Great Arc Technologies, Inc.
401 S. LaSalle St., Suite 702
Chicago, IL 60605
Attention: Michael Scanlon

Changes in these addresses must be in writing and delivered in accordance with the provisions of this Article 11. Notices delivered by mail are considered received three days after mailing in accordance with this Article 11. Notices delivered personally are considered effective upon receipt. Refusal to accept delivery has the same effect as receipt.

ARTICLE 12) AUTHORITY

Execution of this Agreement by Consultant is authorized by a resolution of its Board of Directors, if a corporation, or similar governing document, and the signature(s) of each person signing on behalf of Consultant have been made with complete and full authority to commit Consultant to all terms and conditions of this Agreement, including each and every representation, certification and warranty contained in it, including the representations, certifications and warranties collectively incorporated by reference in it.

EXHIBIT 1

Statement of Work and Schedule of Compensation

Statement of Work (SOW) for

Cook County Government

Office of the Chief Procurement Officer

PINMAP Version 3 Upgrades, Enhancements, and Maintenance

For Geographic Information Systems (GIS) Department
Bureau of Technology

By

Great Arc Technologies, Inc.

With Subcontractors

Pro-West & Associates, Inc.

Scarfe Consulting, LLC

Urban GIS, Inc.

Esri, Inc.

Revision 1: 10/30/23

Revision 2: 3/15/24

Revision 3: 7/1/24

Revision 4: 8/21/24

Revision 5: 8/29/24

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Section 1: Executive Summary

Project Understanding and Approach

Great Arc Technologies (Great Arc) is uniquely qualified to deliver the required PINMAP 3.0 upgrade, enhancements, and continuing maintenance for Cook County. Great Arc brings thorough knowledge of the application, database, and related processes, having built the original web-based portion of PINMAP starting in 2013 and having been the Prime contractor with PINMAP since 2016, providing maintenance, upgrades, and enhancements to meet software standards and provide optimal functionality throughout the application's existence.

History

Cook County hired Esri, Inc. (Esri) as the prime contractor in 2013 to create the PINMAP application, as the next generation of the parcel mapping application that had been originally built by Esri and which was updated/migrated by Great Arc several times in subsequent years. Great Arc, as a subcontractor to Esri, built the web-based portion of the PINMAP application between the fall of 2013 and the fall of 2015. Also included on that project team were: Pro-West & Associates (Pro-West), whose role was to build the desktop portion of the application as well as migrate the spatial data into the Esri Parcel Fabric; Scarfe Consulting (Scarfe), whose role was performing needs assessments, creating required documentation, and coordinating communications; and Esri, whose role was as prime contractor directing the effort, performing project management, and managing database updates and the code repository. Since 2016, Great Arc has acted as Prime contractor, performing all the PINMAP upgrades and maintenance tasks for this system.

In 2020, the application was upgraded to PINMAP 2.0, and Great Arc continued as the prime contractor, directing all efforts and coordinating the same through a SharePoint tracking site, providing updates and enhancements to the web-based portion of the PINMAP application, as well as maintaining the tabular portion of the database. Pro-West provided fixes and enhancements to a portion of the ArcGIS desktop tools in the application as well as upgrading and maintenance of the spatial data. Scarfe Consulting continued providing project management, requirements gathering and documentation. And Esri provided subject matter expertise.

For this current proposal, Great Arc will continue as the prime contractor with primary responsibility for upgrading the PINMAP web application, adding enhancements, and rebuilding some of the Toolbar tools, among other responsibilities. Pro-West will migrate the Esri parcel fabric and upgrade some of the Toolbar tools to work with ArcGIS Pro 3. Scarfe will assist with functional requirements and the transition of project management responsibilities. Urban GIS will take the role of day-to-day project management (coordinating communications and meetings, producing weekly/monthly status reporting, updating the SharePoint site), and assist with some testing and documentation. Esri will continue in a subject matter expert support role.

The Great Arc team is extremely qualified to continue the maintenance of PINMAP, and to perform the specified upgrades and enhancements. With our long history with PINMAP and its predecessor

application, we bring all of the required technical expertise requested by the County as well as a thorough knowledge of the working application, the code it is built on, and the underlying database and integration scripts and processes.

Proposed Sequence of Work for this SOW

As requested by the County, we propose to continue maintaining PINMAP 2.0 under this new contract beginning on 11/1/2024, while we build and incorporate relevant enhancements into the current PINMAP 2. Simultaneously, we will begin the ArcGIS 11.1 Upgrade and related tasks and as approved, move the upgrade into Cook Test and finally Cook Production. We will then begin maintaining what will become PINMAP 3.0 for the duration of the contract term.

On 11/1/2024 we will begin a 3-year term of PINMAP Maintenance. This maintenance will include application support of a technical and advisory nature, minor fixes, database maintenance and oversight, troubleshooting user issues, and other related tasks as directed by Cook County. Cook County reserves the right to extend the Maintenance portion of the project by two additional one-year terms, the cost or rates of which is not included in this SOW.

The Upgrade and Enhancement portion of this contract will be invoiced Fixed Fee, with individual tasks and/or sprints invoiced by % complete per month. The work will be broken down by tasks and grouped into Agile Sprints, determined at project kick-off. See further details in this SOW, with a detailed breakdown of tasks, resources, schedules, and costs listed in the Microsoft Project Plan.

The Maintenance portion of this contract will be time & materials, with no phases, and specific scope items to be determined during the contract and managed using the Cook County SharePoint site. Typical maintenance procedures are outlined in the Maintenance portion of this document.

The Great Arc Team

The Great Arc team is comprised of the following members. Note that our history at Cook County, and roles on this team, are also described at the beginning of this section.

Great Arc Technologies, Inc.

Great Arc is an Esri award-winning full-service, Chicago-based technology consulting firm, providing application development, GIS and spatial data expertise, and database administration and related enterprise services to all levels of government, utility clients, and corporate and private firms. We have provided services to Cook County for more than 2 decades, have had direct involvement in the original and current versions of the parcel maintenance application (now PINMAP), several prior versions of PINMAP upgrades and maintenance, as well as several projects where we upgraded to current versions of Esri software, made application enhancements, and migrated the database from DB2 to SQL Server. We are an Esri Silver Business Partner and hold Esri ArcGIS Enterprise Administration, ArcGIS Online, and ArcGIS Desktop certifications.

Our proposed role for this SOW is: Prime Contractor; Project Administration; SharePoint Issue Tracking Site management; Web-based application code maintenance, enhancements, and updates;

certain Desktop Toolbar rebuilds; Esri Workflow upgrade; database maintenance and updates (non-parcel fabric); Overall database management; Code repository management; and related tasks.

Pro-West & Associates, Inc.

Pro-West & Associates is an award-winning GIS consulting firm that will mark 36 years in business in 2023. We deliver all three components of GIS—integration, data, and solutions—to a standard that exceeds expectations. Pro-West understands the location technology needs of counties; local government accounts for 90% of our business, and we have been working with Cook County for over a decade. GIS services provided to Cook have included application development and maintenance, data development and conversion, system integration, Esri technical expertise, and custom training, extending across multiple departments and business functions. Pro-West is an Esri Gold Business Partner, ArcGIS for Local Government Specialty Partner, and ArcGIS Online Specialty Partner.

Pro-West's proposed role for this SOW is: certain Desktop Toolbar rebuilds; Spatial database and parcel fabric maintenance and updates; and related tasks.

Scarfe Consulting, LLC

SCLLC is a consulting firm that provides technology and management consulting for the public sector. Our focus is in the following areas: project management, business process assessments and re-engineering, application implementations, strategic planning, and Geographic Information Systems (GIS) consulting. SCLLC has successfully completed 23 projects with Cook County where these projects were of a similar nature to this proposed project especially in the areas of inter-agency facilitation, onsite task management, requirements gathering, issue resolution management, application testing and conducting training with County staff. SCLLC brings extensive business knowledge and subject matter expertise to this project through previous projects. Previous projects included the MapMaker Application Update Project, the Assessor Mobile Field Solution Project, Software and Application Maintenance Upgrade Project, the Parcel Maintenance System Assessment Project, the ArcGIS COTS Walkthrough Workshop, and the most recent PINMAP Application Development Project.

Scarfe's proposed role for this SOW is: Provide Function Requirements Analysis and some documentation tasks, assist with transitioning out of the Project Management role, and related services in support of this SOW.

Urban GIS, Inc.

Urban GIS is an industry-leading, full-service geographic information systems (GIS) consulting firm with specialized knowledge in infrastructure and engineering. For over twelve years, we have provided our clients with a range of services, including GIS Consulting, Application Development and Field Data Collection. We are committed to offering quality-driven and technically oriented results through a personal yet professional approach. We are a Release Ready Silver Partner with Esri and has more than 14 years of experience in development, support, implementation, and analysis with the ESRI platform. As a Chicago-based, minority-owned small business (MBE/DBE certified), we strive to deliver

exceptional project results and build long-lasting relationships through innovative services and client satisfaction.

Urban GIS's proposed role for this SOW is: Provide Project Management, certain Documentation and Testing, and some Bug/Bug-fix Tracking.

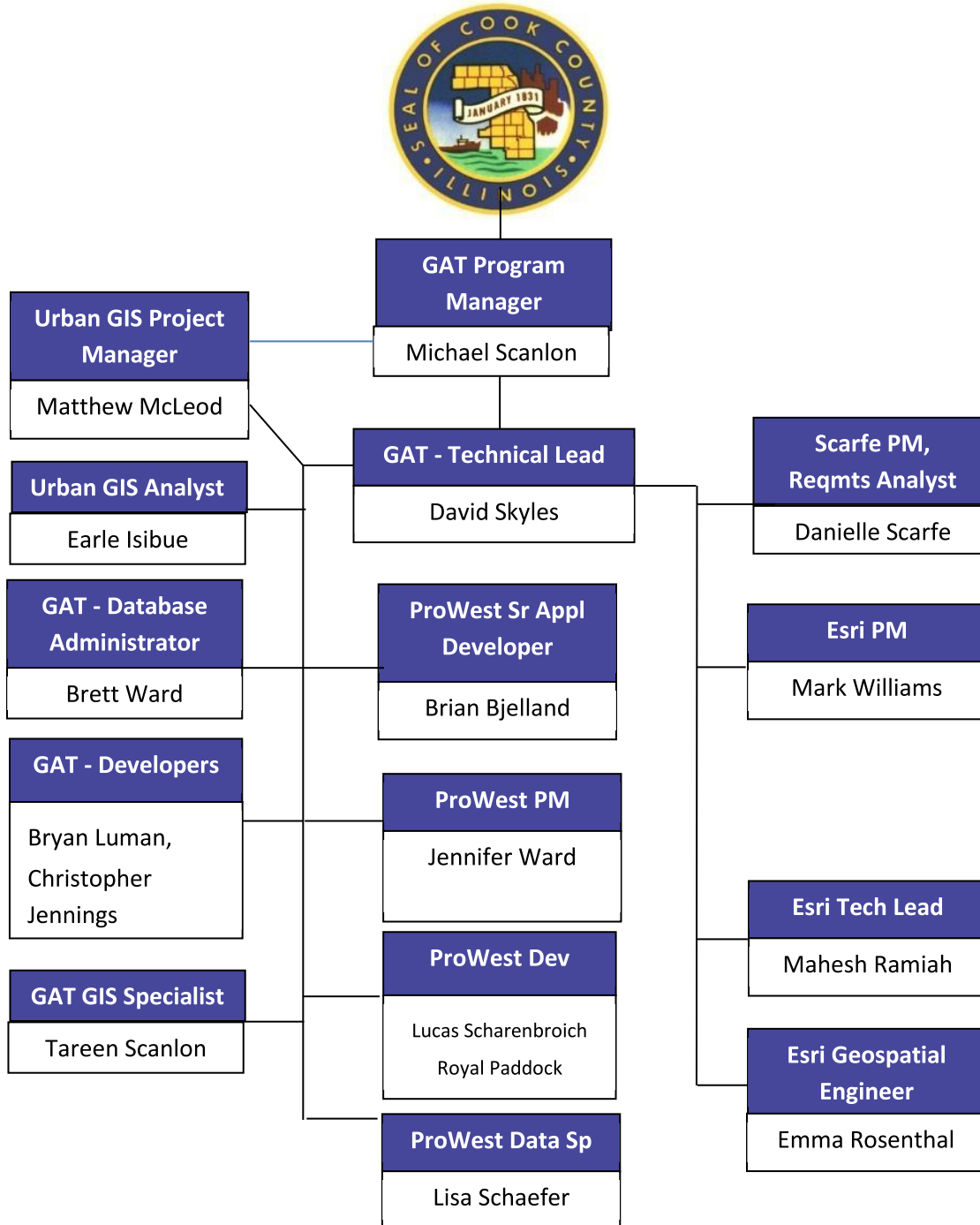
Esri, Inc.

Environmental Systems Research Institute is an international supplier of geographic information system (GIS) software, web GIS and geodatabase management applications, and related services. Esri has provided software and services to Cook County for many years and has had direct involvement in the original and current versions of the parcel maintenance application (now PINMAP).

Esri's proposed role for this SOW is: Subject matter expertise and technical support on an as needed basis.

Organization Chart

See **Section 4: Key Personnel** for staff descriptions. Note that some resources may be replaced or supplemented by others of the same or similar role over the duration of the project.



Section 2: Project Management Approach, Deliverables, Scope, and Schedule

Project Methodology

The Great Arc team will complete the Esri 11.1 upgrade and the application enhancements using the Agile methodology. This methodology will work particularly well since work will consist of upgrades and enhancement to a mature product. We will divide and schedule the work to be accomplished in Sprints, typically a week or two each in length, with all project activities (requirements, design, development, and testing) related to the work in each sprint being accomplished within the bounds of the Sprint.

Note that although most Sprints will cover distinct application functionality, they may also be used to achieve broader tasks, such as system-wide upgrades, environment setup, documentation, and training. Also, we may accomplish multiple Sprints simultaneously, as we spread the work among members of the Great Arc team.

To manage issues and risks, we will continue the use of two SharePoint bug/issue tracking sites, one by Great Arc for the internal project development team to track issues during development, and the other hosted by Cook County for tracking issues and bugs as reported by the County as functionality and upgrades are deployed. The County SharePoint tracking site will be the main driver of issues discussed in status meetings and written reporting and will be used to identify whether issues are in or out of scope, to prioritize the severity of the issues, and to track when fixes are completed and approved.

The PINMAP Maintenance portions of the project will primarily be managed using the SharePoint issue tracking. The Maintenance will not be broken into Sprints, but work will instead be identified, prioritized and tracked using SharePoint.

We have created a Microsoft Project Plan (MPP) that includes all high-level tasks for this project and includes: assigned resources; estimated hours per task; costs for each task; rolled up costs for higher level categories; and estimated start and end dates. Approximate breakdown into Agile Sprints will be determined at project initiation. Key pages from that MPP are included at the end of this section.

Project Deliverables

The Great Arc Team will provide the following project deliverables. Note that many documentation deliverables were produced in prior PINMAP projects, but many will likely need to be updated based on the upgrades, enhancements, and maintenance tasks performed under this SOW. Any of the documents in this list which Cook County determines are no longer used or required will be ignored and removed from the list of deliverables.

Maintenance Plan

The Maintenance Plan is included in the Microsoft Project Plan, including tasks (PINMAP 2.0/3.0 Maintenance - Year 1, PINMAP 3.0 Maintenance - Year 2, PINMAP 3.0 Maintenance - Year 3), resources, rates, and schedule. Two (2) additional/optional years of Maintenance are listed (2028,

2029), are not included in the cost of this project but the rates and costs are listed in case Cook opts to extend the Maintenance one or both of these years, Categories of tasks to be performed for Maintenance are listed below under the section Maintenance Tasks. This Maintenance Plan will be adjusted to fit the actual Cook County schedule, with the transition from PINMAP 2.0 to PINMAP 3.0 Maintenance based on when the Upgrade tasks are completed. Note that since the Great Arc team has a multi-year history of PINMAP Maintenance, we have calculated the monthly Maintenance effort based on historical averages plus a contingency % and adjusted each year's costs based on estimated rate increases for resources.

Project Plan

Project Plan specifics are shown in the Microsoft Project Plan included with this SOW. Details include a listing of all tasks, assigned resources, time estimates, schedules. Groupings according to phases or Agile sprints will be determined at project start. The schedule shown in this plan, the order of tasks, and grouping of tasks can all be adjusted based on kick-off meeting discussions.

PINMAP 2 Application Enhancements

Great Arc will build many of the requested enhancements into the current PINMAP 2 version of the application to accelerate the schedule on when they can be available for use by Cook County, rather than waiting to be delivered as part of the PINMAP 3 upgrade. These enhancements will then carry into PINMAP 3. See the Scope section below for a definitive list.

Updated Toolbar Tools

Both Great Arc and Pro-West will upgrade or rebuild the tools that currently exist in the ArcMap Toolbar to work with ArcGIS Pro. See the Pro-West Scope documents as attachments to this SOW for additional information on procedures and deliverables, as well as detailed descriptions elsewhere in this SOW.

Parcel Fabric Migration

Pro-West will migrate the Esri Parcel Fabric to the ArcGIS Pro Parcel Fabric version 5 to meet the upgrade to Esri Enterprise 11 and ArcGIS Pro 3. See the Pro-West Scope documents as attachments to this SOW for exact procedures and deliverables.

PINMAP 3 Upgrade including Additional Enhancements

The PINMAP application will be upgraded as required to work with Esri ArcGIS Enterprise 11.1 and ArcGIS Pro 3. In addition, there will be enhancements built specifically for this version of the software.

Training

Great Arc and Pro-West will provide the necessary training on the upgraded system including use of the upgraded tools, new enhancements, and use of the upgraded parcel fabric. See the Pro-West Scope documents as attachments to this SOW for exact details on their portion of the training.

Updated Documentation

We will not create any new documents but will instead update existing documents that were updated or created in the prior project. Also note that some of what we list as individual documents below are actually merged into single documents, or are addendums to earlier documents, and will remain in that state. Electronic copies of all documentation will be provided to Cook County upon completion or updates. If requested by Cook County, one printed copy of each document can be provided.

Functional Requirements Document

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additional or updated functional requirements.

Detailed Design Document

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additional or updated processes or interfaces relevant to the system design.

System Test Plan and Scripts (Test Cases)

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any updates to the test plan or updated scripts (test cases), including both functional and non-functional testing, system performance, etc.

System Test Results (completed Test Cases)

We will test the system using test scripts, including those covering new functionality in this SOW, and present results to Cook County. We will retest after any issues are encountered and fixed.

Security Documentation

We will create this document to address system security related to the PINMAP application.

Data Dictionary

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additions or changes to the data dictionary.

Data Conversion (Migration) Plan

See details in the Scope section and in Section 6 defining the steps that will be followed to move the data from Cook County's current version of ArcGIS and SQL Server to ArcGIS 11.1 and SQL Server 2022, which will be formalized in this Data Conversion/Migration Plan which will be presented for approval before starting the data migration. This plan will lay out how the validation of the upgrade will be addressed. This plan will be followed in the Pro-West Development Environment (the results used by Great Arc for Development and Test of

upgrades and enhancements) as well as Cook County Test and Production. The goal will be that once Production is reached, any issues or potential issues will be known and addressed prior to the Production upgrade to allow a smooth transition from the old to new environments.

Data Conversion (Migration) Results

Once the Data Conversion, or rather upgrade, from Cook County's current version of ArcGIS and SQL Server to ArcGIS 11.1 and SQL Server 2022 has taken place, the results of the upgrade will be examined to ensure that all of the data has been successfully moved to the new format. The Great Arc team will provide the County with a report that details the findings of the validation.

User Acceptance Test Plan and Scripts (Test Cases)

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any updates to the user acceptance test plan or updated scripts (test cases), for functional testing only.

User Acceptance Test Results (completed Test Cases)

Users will test the system using test scripts, including those covering new functionality in this SOW. We will present results to Cook County. We will retest after any issues are encountered and fixed.

Integration Test Plan

We will update (or create new where necessary) the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additional or updated integration test plan specifics.

Integration Test Results

We will perform integration testing of the system, including those covering new functionality in this SOW, and present results to Cook County. We will retest after any issues are encountered and fixed.

Stress Test Plan

We will create this document to define parameters for stress testing the system.

Stress Test Results

We will perform stress testing of the system, including those covering new functionality in this SOW, and present results to Cook County. We will retest after any issues are encountered and fixed.

Parallel Test Plan

We will create this document to define the methodology of testing the original and new versions of the system in parallel.

Parallel Test Results

We will perform parallel testing of the system, and present results to Cook County. We will retest after any issues are encountered and fixed.

Operations Documentation

We will create this document to define Operation specific tasks and procedures.

Training Manuals

We will update the most recent version of these documents that were delivered to Cook as part of the prior PINMAP project, to include any additional or updated functionality or features.

User Manual

We will update the most recent version of this document that was delivered to Cook as part of the original PINMAP project, to include any additional or updated functionality or features.

Technical Manual

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additional or updated functionality or features.

Production Checklist

We will update the most recent version of this document that was delivered to Cook as part of the prior PINMAP project, to include any additional or updated requirements.

Final User Acceptance

We will get final sign-off from Cook County that the system meets all requirements and is ready for Production.

Production Implementation

We will obtain final user acceptance and move the application and database as needed so that it is in an approved Production environment and ready for use by the County.

Initial Production Support

We will provide initial production support of the application after production implementation, to address any immediate issues related to the implementation, as part of our continuous Maintenance tasks, including user support, programming, and database support. This will be invoiced as part of Maintenance.

Knowledge Transfer to County User and Technical Staff

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We will provide knowledge transfer of the system to Cook County user and technical staff. Some of this knowledge transfer will be accounted for through previous tasks of documentation and training and could also occur during the maintenance phase.

Updated Project Plans, Status, Reports, Etc.

We will determine the content and schedule of meetings and reporting with Cook County during the kick-off meeting. For the purpose of cost estimation, we assume status meetings will occur every 2 weeks, with the hourly costs primarily charged to Maintenance.

Scope

PINMAP 2 Development Environment Setup, Enhancements, and Deployment

Overview

We will set up a Development Environment at Great Arc that replicates the current Cook County PINMAP 2 environment, and build all Cook specified Enhancements that can work in PINMAP 2. Enhancements specific to PINMAP 3 will be built in a later phase of the project.

Set up or update Development SharePoint Bug/Issue Tracking Web Site

For the current PINMAP Maintenance project, we have used the Cook County SharePoint issue tracking site and plan to continue using it as well as the current tracking and reporting procedures.

Set up or update Dev/Test Environments at Great Arc

Prior to Upgrades or Enhancement work, Great Arc will create Development/Test Environments matching the current Cook PINMAP 2 environment. This environment will be used to build enhancements that are compatible with PINMAP 2 so that Cook County can begin using them without waiting for the full upgrade and migration to PINMAP 3. In addition, we will maintain this PINMAP 2 environment to allow for parallel testing later in the project. in our office for the purpose of parallel testing upgrade/migration results.

We will maintain a SharePoint issue tracking site for tracking Development issues internal to the Great Arc team. We will continue using GitHub in our Development Environment to match the setup/configuration at Cook County.

Note that Pro-West will also set up a Development Environment but only for the upgrade to PINMAP 3 – it is described later in this document.

Perform GIS Database Design Review and Reporting (For PINMAP 2)

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We will review the database design with Cook County and discuss where database recommendations should be implemented.

PINMAP Application Enhancements (PINMAP 2)

Overview

To get as many of the desired enhancements into Cook Production as soon as possible, Great Arc will build all of the proposed enhancements that are compatible with PINMAP 2 at the beginning of the project.

Exempt Code/Agency Table Update Ability

Great Arc will create a new interface to manage exempt agencies in PINMAP. The interface will be used to add or update exempt agencies in the GIS_EXEMPT table which is used to populate the Exempt Code and Exempt Agency fields in the Division interface. Access to this interface will be restricted to specified group(s) like Assessor Admins or a new user group may be created. The interface will allow authorized users to edit the following fields:

- Agency Number
- Agency Name
- Address
- City
- State
- Zip+4

The interface will be modeled after the “Manage Tax District” interface. It will include wildcard search options for the Agency Number, Name, Address, City, State, and ZIP fields.

Allow Updates to Closing Dates

See “Add Closing Date to Division Info” section below.

Tax Code Updates

Notification of Unincorporated Tax Code in Divisions

Great Arc will update the Division interface to identify unincorporated tax codes for PINs added to a Division job either as existing or new PINs. Unincorporated tax codes appearing within the interface will be highlighted either using a different font weight and/or color, or a badge may be displayed next to them. In addition, upon advancing a job workflow, the user will be presented with a message listing all unincorporated tax codes if any exist.

Compare 2 Tax Codes/View All Agencies Within a Tax Code

PINMAP includes a Tax Code dialog that lists tax codes that have been assigned to a selected PIN over time and includes links to the Tax Code Change jobs where the assignments have been made. From this dialog, the user may open an Agencies dialog that shows the agencies assigned to a tax code. The Agencies dialog is currently only accessible from the Tax Code dialog and the Tax Code dialog is available from the Division, Query PIN, and Maintain PINs and Legal pages. The County would like to extend the capabilities of the Agencies dialog to display the agencies side by side for multiple tax codes.

Great Arc will update both the Tax Code and Agencies dialogs to support the display of multiple Tax Codes on each. To open the Tax Code dialog, the user may select multiple PINs with varying tax codes on the host page. This tax code history for each selected PIN will be listed in the Tax Code dialog. Likewise, the Agencies dialog may be opened from the Tax Code dialog with multiple tax codes selected.

The proposed Agency dialog list will continue to display all agencies for a tax code in a vertical list as it currently does. A “Compare” button will be added that allows the user to enter additional tax codes for comparison. The distinct set of tax code agencies will be displayed side by side with matching agencies aligned and blanks representing unmatched agencies between the tax codes. If the Agencies dialog is opened with multiple tax codes passed in, they will each be displayed for comparison. A configuration setting will be added that determines the total number of tax codes that may be compared.

We also will make the Agencies dialog directly accessible from the Division, Tax Code Change, Recording Job, Query PIN, and Maintain PINs and Legal pages without having to go through the Tax Code dialog. When opened directly from these interfaces, the collection of the distinct tax codes from all selected PIN or tax code records will be passed in for comparison.

Document Pass Through To IASWORLD

Great Arc will build a database view that exposes the documents that are uploaded to PINMAP. This database view can then be fed into the IASWORLD application, and in doing so IASWORLD will be able to link to and/or pull the documents that have been uploaded to PINMAP as necessary. Depending on access privileges, the document links could be provided as direct UNC or hyperlink paths. We will work with the County to determine the access requirements for document linking by IASWORLD.

Add Closing Date to Division Info

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Township Closing Dates are currently tracked in the Division Township Table. This closing date is then appended to the Division/PIN information made available via export as well as the database views made available to IASWORLD. With the database views in IASWORLD, Division/PIN information will show up and is available prior to the township closing due to the nature in which the database view was designed.

To provide a more complete solution, Great Arc will make several changes to this process. The first will be to only make Jobs/PINs available in the database view when the Township gets closed, not the Division. This will be more in line with the current Job Scheduler process that exports this information once the entire town is closed.

Another change will be to extend how the Closing Date is set in the view. Additional fields will be added to track jobs that get reopened after a township is closed (and then reopened). These records will have a new/updated date while any jobs that did not get reopened during this process will retain the original dates (job closing and original township closing). This will then allow IASWORD to better process only those Jobs/PINs that were affected during this process.

Editor/Audit Tracking Update for Job Tacking and Edit Logging

PINMAP 2.0 currently audits actions performed by users when adding, deleting, and saving Division, Recording, and Tax Code Change jobs. The username, timestamp, and action are stored for the following actions:

- Save
- Add Document
- Deleted Document
- Add Petition
- Input Petition
- Delete Petition
- Add Subdivision
- Delete Subdivision
- Add Condo
- Delete Condo
- Add Elevation
- Delete Elevation
- Add Legal
- Delete Legal
- Saved Linked Pins

To better track changes made during PINMAP 3.0 jobs, Great Arc will store data changes instead of simple UI actions. When records are inserted, updated, or deleted, the audit will store the full contents of those records including the current workflow step. This will provide the County with the ability to

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determine field-level modifications made by users and at what time. The audit will include changes to all tables modified in the Division, Tax Code Change, and Recording jobs. The data will be stored as JSON in the audit table. In addition, an identifier field will be populated for each audit record to provide context for the change (e.g., use PIN14 for DIVENTRYPIN table auditing).

This approach will provide a comprehensive solution to audit every data change made in PINMAP jobs. As a result, the storage requirements for PINMAP job data will increase, however, we do not anticipate the additional storage requirements to be significant enough to warrant additional host storage allocation.

Update SQL Views for IASWORLD

In the current database, Great Arc worked with the County to create three database views to make data available for use in IASWORLD. These are the VW_PINMAP_EXTRACT_DIVISION, VW_PINMAP_EXTRACT_SPLCOM, and VW_PINMAP_EXTRACT_TAXCODE. These views were initially created with requirements for IASWORLD, but they have been changed over time to better fit the needs of the County and IASWORLD.

For the next iteration of PINMAP, Great Arc will work with the County to define how the data noted below should be provided to the County. That is, the specific field naming that IASWORLD requires will need to be defined as well as any normalization of the data as necessary to fit the type of information (data aliases versus coded values) IASWORLD is expecting to process. Lastly, Great Arc will work with the County to define how the data is presented due to the relationships in the database between Divisions, PINs, and the fields noted below as these typically have a One-to-Many-to-Many relationships. Since this is the case, it will be critical to understand the way in which IASWORLD needs to consume the data.

The following fields will be added:

- Condo Declaration doc number
- Condo Amendment doc number
- Condo unit/apt number
- Condo unit percentage of interest
- back tax status
- petition number
- Petitioner's Name
- Petitioner's Address
- Petitioner's City
- Petitioner's State
- Petitioner's Zip
- Petitioner's Telephone

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- subdivision doc number
- Subdivision name
- subdivision legend notes

Final Great Arc Testing of All PINMAP 2 Enhancements

Unit testing will occur during the coding process for each enhancement. Once all enhancements are complete, we will run system, user, integration, etc. tests prior to moving the code to Cook Test.

PINMAP 2 Enhancements Documentation

We will update any remaining documentation for the PINMAP 2 enhancements in preparation for training or demonstration of those same enhancements.

Deployment of PINMAP 2 Enhancements to County Test Environment

We will follow Cook-specified deployment procedures to deploy the updated code to Cook Test, train (or at minimum demonstrate to) Cook on all enhancements, allow Cook to perform user acceptance testing, fix any issues and get Cook sign-off before moving to Cook Production.

Deployment of PINMAP 2 Enhancements to County Production Environment

We will deploy to Cook Production according to Cook-specified deployment procedures, perform final review of the system, and get acceptance sign-off from Cook.

PINMAP 3 Esri 11.1 Upgrade, Data Migration, Upgrade Tools, and Enhancements in Development Environments

Overview

At project initiation, Pro-West will set up their Development environment, configure it, and begin both their portion of the Toolbar tool upgrades and the migration of a portion of the database/parcel fabric. See Pro-West's scope document attached to this SOW describing their specific tasks and deliverables for the Development environment.

With the new enhancements listed above for PINMAP 2 being deployed to production, Great Arc will maintain that Development environment matching what Cook has for PINMAP 2 for use in later parallel testing but will now set up a PINMAP 3 Development environment per new PINMAP 3 specifications in order to test the upgrade to PINMAP 3 including development of our portion of the Toolbar tools and enhancements related to PINMAP 3.

PINMAP 3 Environment Setup in Development Environments

Great Arc will perform the following to prepare their Development environment:

- Spin up New Servers for the specified PINMAP 3 Environment
- Perform Initial Setup (Restore PINMAP DB, Install SQL Server 2022, Configure Environment, Upgrade SDE to 11.1, Rename GIS database)
- Import Migrated Sample Parcel Data from PWA When Available
- Create Template ArcGIS Pro Project Files

Migrate Parcel Fabric to Version 5 (PWA)

All pro-West tasks related to migrating the parcel fabric in their Development environment are described in detail in their scope document attached to this SOW – reference it for details.

PINMAP 3 Esri 11.1 Upgrade

The following will be completed for the PINMAP 3 upgrade:

Update ArcMap Toolbar to ArcGIS Pro 3 - PWA Upgrades/Rewrites

Great Arc and Pro West will replicate all tools currently available in the PINMAP AddIn within ArcMap except for the existing Web View. We have proposed an alternate solution to manage communications between ArcGIS Pro and the PINMAP web application (see “ArcGIS Pro and PINMAP Web Link”) to replace the Web View tool. Each tool will need to be redeveloped using the ArcGIS Pro SDK but will be designed to appear and behave like its predecessor.

The following tools will be rebuilt by Pro-West to work with ArcGIS Pro 3:

- *Manage Elevated Parcels*
- *Add Extender*
- *Add Property Hooks*
- *Copy Annotation*

Related Pro-West tasks related to their Toolbar tools are:

- *Upgrade Fabric Publishing Script*
- *Setup On Test Env.*
- *Setup On Production Env.*

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- [Setup ArcGIS on Cook Test for Testing by Cook Team](#)
- [Create Documentation for Updated Tools](#)
- [UAT Document Updates](#)

The following tools will be rebuilt by Great Arc to work with ArcGIS Pro 3:

- [Options Form](#)
- [Assign Attributes](#)
- [Snake Attributes](#)
- [Zoom To Job](#)
- [Create Division](#)
- [Tax Code Change Annexed](#)
- [Tax Code Change Disconnected](#)
- [Validate Boundaries](#)
- [Manage Maps](#)

Note the following for the Manage Maps tool: In the current PINMAP 2.0 application, the Manage Maps tool within ArcMap calls an external Python script that generates the tax maps as PDFs. We intend to keep this process largely unchanged. The Python scripts will be migrated from Python version 2.x to 3.x along with the embedded modules. In addition, the print map document (Print.mxd) will be converted to an ArcGIS Pro Project. Otherwise, all code logic, structure, and outputs will remain the same. During testing, Great Arc will visually compare all tax map PDFs generated from the current production system to the PDFs generated from the upgraded Manage Maps tool for one small to medium sized representative township.

- [Manage Insets](#)

Esri Workflow Manager Migration

The Esri Workflow Manager was used in the original PINMAP application to manage job resources, assign job steps, and track job status. This version of Workflow Manager, now known as Workflow Manager (Classic), was developed for ArcMap and will be retired along with ArcMap in 2024.

The new Esri Workflow Manager is now integrated within Portal for ArcGIS Enterprise. As a result, all users that can be assigned to job steps within Workflow must have a Portal account matching their PINMAP user.

The PINMAP application will be updated to make calls to the Workflow Manager REST API to fetch the job status, assign users to a job step, advance the workflow, close jobs, and re-open closed jobs. Unlike its predecessor, the new Workflow Manager uses ArcGIS Data Store to store all job data. PINMAP currently integrates the job tables stored in SQL Server to provide job information in the

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PINMAP interface as well as SQL Server Reporting Services (SSRS) reports. Since these tables will no longer be accessible from SSRS, we will need to replicate key job status information in SQL Server to support job-related reporting.

The PINMAP web application will also rely on its replicated workflow status data to support workflow history. There is currently no method to migrate workflow data from the classic version to new, therefore, the new workflow system will only capture workflow from the jobs created or re-opened after PINMAP 3.0 implementation.

Great Arc will assist the County with the installation and configuration of the new Esri Workflow Manager for the PINMAP workflow. We will provide maintenance documentation for common tasks such as adding user accounts and providing the required permissions for PINMAP.

PINMAP Installers

PINMAP includes three InstallShield installers to install the web application, SSRS reports, and ArcMap Addin (including GIS Launcher). Apart from the SSRS reports installer, these installers will need to be updated to support the new PINMAP 3.0 environment.

The current PINMAP ArcMap Addin installer is used to install the PINMAP desktop components including the GIS Launcher (used to launch ArcMap from the PINMAP web application) and the PINMAP ArcMap AddIn. During the installation, the user is prompted for a PINMAP configuration service URL. This configuration setting is then embedded in the Addin by extracting the Addin contents, updating a configuration file, and then repackaging the Addin for deployment on the workstation.

For the PINMAP 3.0 Addin installer, Great Arc will simplify the process by eliminating the need to extract the ArcGIS Pro Addin contents and instead save the service URL to an environment variable on the workstation. This update will require updates to the InstallShield project that creates the PINMAP Addin installer. In addition, the InstallShield project will need to be updated to embed the new AddIn library, GIS Launcher executable, and updated dependencies.

The current PINMAP Web Application installer is incomplete. Upon installation completion, an administrator will need to further configure the application by updating a local configuration file. Great Arc proposes that these configuration settings are moved to the database so that only the database configuration settings are captured from the installer. In addition, the InstallShield project will be updated to include new application dependencies.

Great Arc will work with the County to update the AddIn and Web Application installers for PINMAP 3.0.

Assessor/Clerk (Recorder) Sketch Tool Rebuild

PINMAP currently includes two web sketching tools for the Assessor and Recorder. These web mapping applications, based on the Esri JavaScript API version 3.x, include simple sketching tools

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along with standard map navigation and layer list tools. In practice, the limitations of the provided sketching tools have restricted their usefulness for Cook staff. In addition, the Esri JavaScript API version 3.x is set to expire on July 1, 2024.

Great Arc will develop a single sketching web application that leverages the latest available Esri JavaScript API and provides advanced sketching capabilities. The sketch application will be customized for both the Assessor and Recorder workflows. This may include different maps, default layer visibilities, and available tools. Sketches will be saved to feature classes specific to the Assessor and Recorder.

The new sketching web application will include the following features:

- Standard map navigation (Zoom In, Zoom Out, Zoom to Job Area, Pan)
- Layer List to toggle map layer visibility
- Measure tools
- Metes and Bounds Editor
- Polygon drawing tools
- Polygon editor for polygons defined by Metes and Bounds or drawing tools
- Editor snapping to existing map features
- Adding notes to the polygon sketch features

Completed sketches will be linked to Division jobs using the Job Number. Sketches may be viewed/reviewed with the sketch web applications, or within ArcGIS Pro as attached layers in the ArcGIS Pro map for Divisions.

Note: Cook suggested that their existing GIS staff could implement the applications if the required features were supported by AGOL. While this is currently true as Esri offers a Parcel Drafter widget that supports polygon definitions using Metes and Bounds, this Web AppBuilder widget is set to expire in 2024 as Web AppBuilder is built off the Esri JavaScript API version 3.x. Esri has no current timeline for replicating this tool to support the Esri JavaScript API 4.x or the Web Experience Builder in AGOL.

ArcGIS Pro Launcher

Launching ArcMap from the PINMAP web interface requires a custom application that is installed along with the PINMAP AddIn. It registers the ArcMap application with a URL Protocol so that the application can be launched from the browser while opening the job-specific MXD. Great Arc will update this application to launch ArcGIS Pro with the job-specific project files along with parameters indicating the Job ID and a unique device identifier. The new launcher will also be integrated into the new AddIn installer.

ArcGIS Pro and PINMAP Web Link

After opening ArcMap from within the PINMAP web interface, users have the option to open the same web interface within a dockable ArcMap window. The interface within ArcMap is identical to the calling web interface except that the layout is adjusted to better fit within ArcMap and link buttons are displayed in some data rows to link the PINMAP attribute data to spatial features in ArcMap.

Great Arc will update this integration for ArcGIS Pro so that the web interface will not need to be loaded within the ArcGIS Pro application. Instead, a live link will be created between the interface running in the browser to the PINMAP Addin within ArcGIS Pro. This mechanism will minimize some of the web UI load errors encountered with the current Microsoft Edge WebView component.

When launching ArcGIS Pro from the web browser, a unique session will be created on the server between the web page and ArcGIS Pro using the Job ID for the current Division or Tax Code Change job and a unique device ID. Using this combination will prevent any crosstalk in the event the same job is opened concurrently in ArcGIS Pro on additional devices.

Once connected, the PINMAP interface will display a label indicating it has an open connection to ArcGIS Pro and the link tools within the PINMAP interface will become enabled. In the event the connection is severed, due to ArcGIS Pro shutdown, network issues, or web server downtime, the link tools will become disabled and the PINMAP web interface will update to show it is disconnected from the ArcGIS Pro session.

Esri Resource Management

The current PINMAP application manages the creation of Division and Tax Code Change jobs, including the Esri resources required to manage the spatial data including the management of SDE versions and ArcMap MXDs. When a user clicks the ArcMap icon in the PINMAP interface in a Division or Tax Code Change job, PINMAP checks whether a job specific SDE version and MXD exist. If not, they are created and all versioned layers within the MXD are updated to connect to the newly created SDE version. Upon job close, PINMAP confirms that the job MXD is not open and that all changes in the SDE version have been posted and reconciled before continuing. Once closed, the SDE version and project files are deleted.

Great Arc will update these processes for compatibility with the new ArcGIS Pro project files and Branch Versioning environment. This may be accomplished directly by the PINMAP code as it is done now, or by integration within the new Esri Workflow Management system.

Report Enhancements

- *Update Division Jobs Report*

Great Arc will develop a new, or enhance an existing, Division report to include advanced auditing information. For each Division job, each update action (add, update, and delete) will be listed including the username for the person who performed the action, the datetime of the action, and an identifier for the database record that was added, updated, or deleted. Workflow will also be included including the username for the person who advanced the workflow and the datetime it occurred.

- *SSRS Reports Review and Updates*

All SSRS Reports will need to be reviewed by the Great Arc team to determine if any changes are necessary (to match current reports) due to the migration to the new Parcel Fabric, ArcGIS 11.1, and/or the new Workflow. If any changes are necessary, update and redeploy the reports as required.

Final Great Arc Testing of PINMAP 3 Upgrades and Enhancements

In addition to thorough final testing at this time before deploying PINMAP 3 to Cook Test, we will test creating an install package using the new installers. We will execute test cases to ensure the system is functioning properly. Testing targets will include the PINMAP web application, ArcGIS Pro Add-In, publish scripts, and data transfer/load processes.

Upgrade Cook Test Environment for Esri 11.1/ArcGIS Pro 3, Migrate Data, Deploy PINMAP 3, Test

Software Installation (Esri, SQL Server, Etc)

In preparation for Great Arc and Pro-West to begin the setup on Cook Test, Cook County will install all software for the PINMAP 3 environment including the updated database and all Esri software. Great Arc will, however, support the County with this effort and will assist Cook County in troubleshooting any issues that might arise. It is assumed that Cook will maintain their ArcGIS 10.8.2 environment as is until all parallel testing has successfully completed.

Geodatabase Migration

Cook County

Great Arc and Pro-West, after upgrading the GIS Database in the Development environment and testing the upgrade, will perform the same tasks in the Cook Test Environment, and upon signoff and approval from the County, the same steps will be performed in Cook Production. See detailed description of steps to migrate the Esri Parcel Fabric in Pro-West's scope document attached to this proposal.

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Cook County is to ensure that all data is clean and backed up prior to the database migration. See Pro-West notes regarding data cleanup in their scope document attached to this SOW.

Great Arc

Specifically, we will do the following related to the GIS Database Upgrade:

1. Run the Esri Upgrade Tool to Upgrade the database to ArcGIS Enterprise 11.1.
2. Rename the database.
3. Execute SQL scripts for Schema and Data changes after Pro-West deploys new fabric and data.
4. Test the Upgrade Results and correct as required.
5. Verify Cook Test Environment Configuration.

Assumptions This Section

1. The County is responsible for procuring any of the hardware and software necessary for the upgrade.
 - ArcGIS Enterprise 11.1 (ArcGIS Server*, ArcGIS Portal, ArcGIS Datastore)
 - ArcGIS Pro 3.1
 - ArcGIS Workflow Manager 11.1
 - SQL Server 2022

*Note that ArcGIS Server must be federated with the ArcGIS Portal Instance
2. The County is responsible for installation and configuration of the hardware and software necessary for the upgrade.
3. The County will provide us with a backup of the 10.8.2 Production GIS Database.
4. Any issues discovered during the upgrade—such as bad data preventing the upgrade from taking place—will be resolved by the County.
5. The County Test Environment will exactly match the County Production Environment.
6. Cook County will have both an Esri 10.8.2 and 11.1 Test Environments to accommodate parallel testing.
7. Cook County is to perform all Cook Esri software upgrades. Cook will coordinate with Great Arc for timing of the upgrades.
8. See additional notes and assumptions in the Pro-West scope document attached to this SOW.

Pro-West

All pro-West tasks related to migrating the database in Cook Test are described in detail in their scope document attached to this SOW – reference it for details.

ArcGIS Pro

The upgrade from ArcGIS Desktop 10.8.2 to ArcGIS Pro 3 will introduce editing staff to new tools and enhancements in the software. To ensure efficient editing is maintained, Pro West proposes to

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conduct on-site training with the current editing staff to review their current process and how to update that process with ArcGIS Pro 3. See Pro-West's scope document attached to this SOW for details.

PINMAP 3 Application

To upgrade the PINMAP 3 application for ArcGIS 11 and ArcGIS Pro 3, Great Arc will perform the following tasks. The web application, desktop tools, and reports will all be deployed using the newly rebuilt installers. This will allow the Great Arc team to test the deployment of the application onto the County Network.

- Configure Workflow
- Configure ArcGIS Pro Projects for County Environment
- Deploy updated ArcGIS Pro Maps
- Deploy 11.1 ArcGIS Workflow
- Deploy updated Sketch Maps
- Deploy updated Sketch Apps
- Deploy Upgraded PINMAP 3 Application to Cook Test
- Deploy Reports
- Test to ensure deployment/configuration success
- Make updates to the application where functionality breaks after the upgrade
- Retest as required

Testing

We will perform testing to ensure that the upgraded PINMAP application and related components have been successfully upgraded and are ready for Cook user acceptance testing.

Cook GitHub

Great Arc will move the upgraded code into the Cook County GitHub repository.

Cook County Stops Editing in Production/Cook Training

For detailed steps of what tasks need to be accomplished between the Stop Editing and the Cook Production Upgrade/PINMAP 3 Deployment, see the section "Transition/Cut Over Approach" under *Upgrade Cook Production Environment for Esri 11.1/ArcGIS Pro 3, Migrate Data, Deploy PINMAP 3, Test*. In addition, see Pro-West's scope document regarding specific tasks that will happen during this period of no editing of the Cook County Production database.

User Acceptance Testing by Cook County

Cook County will employ test cases and procedures to fully test the upgraded PINMAP 3 application including parallel testing of results with PINMAP 2 in an older Test environment, Great Arc and Pro-West to make changes to code and data as required and Cook performs final testing and sign-off. See Pro-West's scope document attached to this SOW for additional notes.

Final Update Documentation

After the final acceptance testing is approved by Cook County, the Great Arc team will finalize all required project documentation to include any changes made during rework. In addition, all environment-specific documentation will be updated to reflect the configured production environment.

GIS Tables Knowledge Transfer from Great Arc to Cook County

Great Arc and the project team will schedule time with the County to discuss the PINMAP database with the County and how the various tables, relationships, database views all come into play in the Division and Tax Code change process. This will allow the County to better understand the database as well as the various processes within the PINMAP application.

Assumptions This Section

1. The County will provide the Great Arc team with VPN Access
2. The County will provide the Great Arc team with the necessary user rights to perform the installation and configuration of the software.
3. The County Test Environment will be configured with the appropriate software.
4. See additional notes and assumptions in the Pro-West scope document attached to this SOW.

Upgrade Cook Production Environment for Esri 11.1/ArcGIS Pro 3, Migrate Data, Deploy PINMAP 3, Test

After successful user acceptance testing in Cook Test, final migration and validation of the database including the parcel fabric, and sign-off by Cook, we will perform similar steps to get the upgraded PINMAP 3 deployed to Cook Production, including the same assumptions as in Cook Test. In addition to the steps described in the next section, "Transition/Cut Over Approach", see a description of the database/parcel fabric migration in the Pro-West scope document attached to this SOW.

Transition/Cut Over Approach

For the final transition to PINMAP 3.0, access to the current PINMAP 2.0 environment will need to be completely shut down for database and application upgrades. We will work with the County to define the duration for the cutover and identify a schedule where all required parties are available. During the cutover, we expect the following steps to be performed:

1. Cook DBA performs full backups on Production database.

2. Cook DBA upgrades SQL Server 2019 to SQL Server 2022 with assistance by Great Arc.
3. Great Arc upgrades the SDE Geodatabase to version 11.1 using ArcGIS Pro.
4. Cook DBA renames the GIS database.
5. Pro West loads Parcel Fabric and other upgraded spatial data into the upgraded database.
6. Pro West publishes the Parcel Fabric to ArcGIS Portal.
7. Great Arc updates SDE connections for all ArcGIS Project files including Division, Tax Code Change and Print template projects.
8. Great Arc applies data model and data changes to support PINMAP version 3.
9. Great Arc installs updated PINMAP applications including Web Application, SSRS Reports, ArcGIS Pro Toolbar, and publish scripts.
10. Cook installs update PINMAP ArcGIS Pro Toolbar on Clerk workstations.

After completion of the system upgrade, Great Arc will perform a cursory check of the PINMAP application(s) to ensure proper configuration.

Perform Cook Training/Knowledge Transfer (web or in-person as required and agreed upon)

The Great Arc team will provide remote and/or on-site training to the current PINMAP user and administrator groups at Cook County. Training materials will be provided that reflect the new features and workflows in ArcGIS Pro, the upgraded Add-In, the PINMAP web application, and updated system integrations/processes. We will coordinate training and user acceptance testing with Cook to be most effective. Note that this training will happen post-migration to production and will happen as Cook County starts working jobs and using the updated application.

Rollout Support

On the business day that PINMAP 3.0 is rolled out, Great Arc will be available to the County in an active support roll to troubleshoot any issues or problems that may arise. Pro West, Scarfe, Urban GIS, and Esri will also be available via phone or online meeting should any issues that require their attention come up. Great Arc will continue to be available in a support roll after the first day's rollout and can be on-site if necessary or troubleshoot anything else over the phone.

Maintenance

Maintenance Tasks

As the Great Arc team has been doing for the last 6 years, we will perform the Maintenance tasks for the PINMAP system. This will include issue tracking, bug fixes, testing, analysis etc. associated with maintenance of the current Production version of PINMAP. Note that this Maintenance will either be on PINMAP 2.0 or 3.0, depending on the current version of the application in Production at Cook County. Specifically, we will do the following:

1. The Great Arc team will continue bug-fixes listed on the SharePoint issue tracking site and based on priority.

2. All bug fixes to the system will be fully tested. Once the fixes have passed testing in Development, SharePoint will be updated to reflect progress. Based on an agreed-upon schedule, updated code will be pushed to the Test environment for Cook testing. Cook will test all fixes in Test. If the tests fail, SharePoint will be updated, and Great Arc will look further into the issues. Otherwise, the updated code will be pushed to Cook Production on an agreed-upon schedule and procedure.
3. Any documentation that requires updating based on application fixes will be updated with those costs charged to Maintenance.
4. Any bug fixes to the system that are beyond currently scoped functionality may require a small needs assessment to determine the exact scope of functional changes or additions. In this case, that assessment will be made and presented to Cook to determine whether or not to proceed with that work.
5. Assuming the County hosts or licenses the code repository, code will be pushed from Development according to agreed-upon rules.
6. Great Arc will provide monthly Status Reporting, driven by updates to the SharePoint project tracking and issue list.

PINMAP Maintenance Phases

We will continue maintaining PINMAP 2.0 under this new contract beginning on 11/1/2024, while we build and incorporate relevant enhancements into the current PINMAP 2. Simultaneously, we will begin the ArcGIS 11.1 Upgrade and related tasks and as approved, move into Cook Test and finally Cook Production. We will then begin maintaining what will now be considered PINMAP 3.0 for the duration of the contract term. This maintenance will include the tasks listed in the previous section. Cook County reserves the right to optionally extend the Maintenance portion of the project by two additional one-year terms, the cost or rates of which are not included in the total cost of this SOW, but are listed elsewhere in this SOW in case Cook decides to accept one or both additional years of Maintenance (2028, 2029).

Establish Maintenance Request Management System

For the current PINMAP Maintenance project, we have used the Cook County SharePoint issue tracking site and plan to continue using it as well as the current tracking and reporting procedures.

Great Arc Team Application Development Skills

The Great Arc team has extensive application development skills, including skills required to develop against Esri Technology. Specific to this TOR, we can confirm the following are included in our skill set:

- HTML/JavaScript
- Python
- C#

- SQL Server DBA Skills
- SQL Reporting Services
- Familiarity with:
 - LINQ
 - ArcObjects
- Esri ArcGIS Desktop, ArcGIS Pro, Esri Parcel Fabric, ArcGIS Enterprise

Quality Assurance

Great Arc and Pro-West will have the respective parts of the application running in Development environments at their offices. If a code change is required. We will:

1. Check the current code release out of the repository.
2. Make the required code fix.
3. Unit test any code changes.
4. Perform cursory testing in Development.
5. Push changes to the Cook Test Environment where we will perform full user and integration testing utilizing existing test cases. If required, test cases will be updated or new ones created if they did not already exist.
6. In the Cook Test Environment, Cook will perform user testing using real scenarios in combination with test cases. If it fails, the cycle will repeat back at step 2.
7. If testing passes, the code will be pushed to the County's GitHub code repository in order to build a release of the application that will be pushed to Cook Production. Once the software has been rebuilt and is ready for deployment, Great Arc will work with the County to schedule a deployment release.
8. Note that user documentation and test cases were created as part of the original PINMAP development, and will be used and extended as necessary in this SOW.
9. Also note that any issues found during the County's Testing will be documented and tracked on the County's SharePoint site.

Change Management

The objective of developing the change management procedures are to formalize the requests made during the lifecycle of the project which can affect scope, project deliverables, and application functionality. These changes may influence the schedule, budget, staff resources, and deliverable content/functionality. Once the request is made, the core project team will work together to understand the request, evaluate the justification for implementation, determine if alternate options are available and then make the decision. As part of the process when assessing a requested change, Great Arc will review the request to determine the impact, cost, benefit and the risk of the proposed changes. The plan developed to assist in this process will ensure that standardized methods and procedures are in place to efficiently manage all the requested changes to minimize impact on the project scope

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and schedule. The main objective is to minimize project disruptions, to reduce the need to change major milestones and to ensure proper utilization of staff resource time.

Contract/Change Management Procedures

1. Once the Scope of Work has been approved, any requested work that is not explicitly identified in it must be put through a Change Control procedure.

Change Control procedure:

If, in consultation with Cook County, it is determined that any work is out of scope, Cook County will submit a change request to Great Arc. Great Arc will then:

- a. determine the changes that must be made to any system components in order to effect the change.
- b. determine any associated cost.
- c. identify any necessary schedule changes, and whether the change would be part of the current release or a future release.
- d. Submit the proposed changes to Cook County for approval.

If approved, that work will be added to the project and costs, tasks, and schedules updated accordingly.

General Notes on Knowledge Transfer and Training

Continuing Knowledge Transfer

It is important to consider the knowledge transfer approach when working with staff to resolve and improve processes related to PINMAP and the cross-departmental business operations. Great Arc will present a knowledge transfer approach to organize, create, capture and distribute the knowledge gained through resolving issues or gathering requirements to ensure its access for future users of the system. This will be accomplished by deciphering issues, documenting them, determining best practices to gain efficiencies, and sharing this back to the team. One method will be to log issues in a single repository, such as SharePoint, and ensure that this information is kept up to date as the issues is worked. All support documentation will be attached and resolutions documented so that the item has a complete history, from start to finish, of the final implementation decision.

Training

In addition, knowledge transfer will be provided through the previously described (and described in the Pro-West scope document) staff training, for both end users of the system as well as administrators who are responsible for its availability. Staff will be trained not only on the use of the application, but provided with insights as to why the solution is constructed as it is. ***End users and Administrators will be trained (at Cook by PWA, at Cook or remotely by Great Arc) with hardware and software***

setup for Cook County trainees provided by Cook County, in coordination with the Great Arc team.

The end user training sessions will be in the format of “train-the-trainer” related to the application upgrades, enhancements, and new parcel fabric only, and any affected portions of the original application. **The training sessions will be performed (at Cook by PWA, at Cook or remotely by Great Arc) utilizing County premises in a computer-lab setting or individual computers as determined at a later date.** An updated User Guide will be provided along with the enhancement training exercises. The county will be responsible for providing data information that will properly correlate to the exercise needs. For example, if a division is to be performed on a condo, the county would need to provide different condo PINs for each individual being trained so that they can run through the exercise.

With PINMAP 3.0, the County Technical and Administrator roles will not change from PINMAP 2.0. Great Arc will ensure that any technical documentation is updated to support the new application and will be available to support the County Administrator staff as necessary.

County Responsibilities

- Provide computer lab for training **or setup for remote training**
- Identify staff for train-the-trainer end user training
- Provide sample data for specific training exercise needs

Deliverables

- PINMAP Training Guides
- PINMAP Enhancements Training Exercises

General Assumptions

1. If later versions of Esri software are available at the time of this project work, we will work with Cook County to jointly evaluate the possibility of upgrading to them, including whether later versions might increase project scope in any way in which case we will evaluate any additional associated scope/project costs.
2. All environment setup at Cook County will be by Cook County, including a new staging environment as required to allow for testing of PINMAP 3.0 while also keeping a test environment for PINMAP 2.0. Any assistance required of Great Arc will be invoiced as Maintenance hours.
3. Invoicing will be monthly for all tasks in this SOW, invoiced Fixed Fee as % complete per task or sprint per month for the Upgrades, Enhancements, and Data Migration phase of the project, and invoiced time and materials per month for all time actually expended on all Maintenance tasks and phases. Payment terms will be net 30-days.

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Project Schedule

<i>Project Phase</i>	<i>Start Date</i>	<i>End Date</i>	<i>Fiscal Year</i>
Upgrades, Enhancements, and Data Migration	11/1/2024	12/31/2025 (approx.)	2024,2025,2026
PINMAP 2.0/3.0 Maintenance – Year 1	11/1/2024	10/31/2025	2024,2025
PINMAP 3.0 Maintenance – Year 2	11/1/2025	10/31/2026	2025,2026
PINMAP 3.0 Maintenance – Year 3	11/1/2026	10/31/2027	2026,2027
Optional PINMAP 3.0 Maintenance – Year 4	11/1/2027	10/31/2028	2027,2028
Optional PINMAP 3.0 Maintenance – Year 5	11/1/2028	10/31/2029	2028,2029

See the Microsoft Project Plan for a more detailed schedule broken into tasks and sub-tasks.

Key Dates in the Schedule

Note that as shown in the current schedule, the Stop Editing phase of the project, where Cook completes and saves all edits, reconciles/posts/deletes all versions, etc., begins on August 1, 2025 and runs through the month of August. If there are adjustments to the schedule, this Stop Editing phase must not start any earlier than August 1, 2025, nor start any later than September 1, 2025, in order for Cook County to perform their government tasks in a timely manner. Note that Cook County must be back in Production no later than December 1, 2025 (though training will occur during the first several weeks back in Production).

Microsoft Project Plan

A Microsoft Project Plan, describing all tasks, schedules, hours, resources, and costs is included following this page. Note that some tasks are expanded to show details, others are not. Tasks such as most of the Toolbar tool rebuilds are not expanded as the subtasks are typical – requirements updates, design document updates, coding, unit testing, etc. However, a task such as Manage Maps or one of the larger enhancements is expanded to show subtasks as they show meaningful itemizations.

ID	Task Name	Start	Finish	Cost	Oct 24, '24 Week -1	Nov 1, '24 Week 1	Nov 8, '24 Week 2
1	Cook County PINMAP 3.0 Upgrade, Enhancement & Maintenance (2024-2027)	Fri 11/1/24	Sun 10/31/27	\$1,354,161.72			
2	Notification to Proceed	Fri 11/1/24	Fri 11/1/24	\$0.00		11/1	
3	Professional Services (For Upgrades and Enhancements Phase Only) - Fixed Fee Invoicing	Fri 11/1/24	Mon 11/17/25	\$932,130.12			
4	Project Management	Fri 11/1/24	Mon 12/16/24	\$55,538.33			
18	PINMAP 2 Development Environment Setup, Enhancements, and Deployment	Wed 11/6/24	Fri 2/28/25	\$100,785.16			
131	PINMAP 3 Esri 11.1 Upgrade, Data Migration, Upgrade Tools, and Enhancements in Development Environments	Fri 11/1/24	Tue 7/15/25	\$452,064.00			
393	Upgrade Cook Test Environment for Esri 11.1/ArcGIS Pro 3, Migrate Data, Deploy PINMAP 3, Test	Fri 4/4/25	Mon 7/28/25	\$107,656.66			
472	Cook County Stops Editing/Cook Training	Tue 7/15/25	Thu 8/28/25	\$50,652.59			
510	Upgrade Cook Production Environment for Esri 11.1/ArcGIS Pro 3, Migrate Data, Deploy PINMAP 3, Test	Thu 8/28/25	Mon 11/17/25	\$165,433.38			
610	Maintenance (PINMAP 2.0 and 3.0) - Hourly Invoicing	Fri 11/1/24	Sun 10/31/27	\$422,031.60			
611	PINMAP 2.0/3.0 Maintenance - Year 1 (Includes PM, issue resolution, reporting, etc)	Fri 11/1/24	Fri 10/31/25	\$146,333.32			
633	PINMAP 3.0 Maintenance - Year 2 (Includes PM, issue resolution, reporting, etc)	Sat 11/1/25	Sat 10/31/26	\$141,184.34			
655	PINMAP 3.0 Maintenance - Year 3 (Includes PM, issue resolution, reporting, etc)	Sun 11/1/26	Sun 10/31/27	\$134,513.94			
677							
678	Optional Additional Maintenance (PINMAP 3.0) - Note: Year 4 and Year 5 Maintenance Costs Not Included in Rolled-up Project Cost on Line 1 Since Optional - Hourly Invoicing	Mon 11/1/27	Wed 10/31/29	\$293,066.28			
679	PINMAP 3.0 Maintenance - Year 4 (Includes PM, issue resolution, reporting, etc)	Mon 11/1/27	Tue 10/31/28	\$143,321.68			
701	PINMAP 3.0 Maintenance - Year 5 (Includes PM, issue resolution, reporting, etc)	Wed 11/1/28	Wed 10/31/29	\$149,744.60			

Section 3: Key Personnel

Proposed Project Staffing

The following is a listing of all staff from each of the Prime and Subcontractors that are available (at the time of this SOW) for this project. The data grid that follows lists additional information. **Note that some resources may be replaced or supplemented by others of the same or similar role over the duration of the project.** Resumes are provided for names **Bolded**.

Great Arc Technologies, Inc.

Michael Scanlon – Program Manager (overall management)

David Skyles – Technical Lead

Brett Ward – Database Administration, Developer

Bryan Luman - Developer

Christopher Jennings – Developer

Tareen Scanlon – GIS Specialist

Scarfe Consulting LLC

Danielle Scarfe – Requirements Analysis/PM Transition

Urban GIS, Inc.

Matthew McLeod – Project Manager

Earle Isibue - GIS Analyst

Pro-West & Associates, Inc.

Brian Bjelland – Senior Application Developer

Lucas Scharenbroich - Technology Manager

Jennifer Ward - PM

Royal Paddock - Application Developer

Lisa Schaefer, GISP - Geospatial Data Specialist

Esri, Inc.

Mark Williams – PM

Mahesh Ramiah – Technical Lead

Emma Rosenthal– Geospatial Engineer

Name	Experience	Title	Availability (Full/Part Time)	Time (%)
Michael Scanlon	20+ years	Program Manager / Senior Developer	Full	50
David Skyles	20+ years	Technical Lead/Senior Developer	Full	50
Brett Ward	20+ years	Database Administrator	Full	50

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KEY PERSONNEL



Bryan Luman	15+ years	GIS Developer	Full	20
Christopher Jennings	15+ years	GIS Developer	Full	20
Tareen Scanlon	7+ years	GIS Specialist	Part	20
Brian Bjelland	14+ years	Senior Application Developer	Full	50
Lucas Scharenbroich	14+ years	Technology Manager	Full	25
Jennifer Ward	8+ years	Project Manager	Full	25
Royal Paddock	8+ years	Application Developer	Full	25
Lisa Schaefer	17+ years	GISP - Geospatial Data Specialist	Full	50
Danielle Scarfe	20+ years	Requirements Analysis/PM Transition	Full	10
Matthew McLeod	15+ years	Day to Day Project Manager	Full	50
Earle Isibue	5+ years	GIS Analyst	Full	25
Mark Williams	10+ years	PM	Full	10
Mahesh Ramiah	10+ years	Technical Lead	Full	10
Emma Rosenthal	5+ years	Geospatial Engineer	Full	10

Key Resumes follow this page.

Michael Scanlon

President, Great Arc Technologies, Inc., June 1999 to the present

President and principal of Great Arc Technologies, an information technology consulting firm specializing in GIS and spatial technologies, custom application development, and systems integration. Mr. Scanlon serves primarily in the role of application designer/developer, project manager, and senior consultant.

Projects

Project Administrator, Infrastructure Management, Illinois State Toll Highway Authority (Current project is RR-14-9170)

Project administrator for Great Arc's multi-year contracts to provide GIS services to the Tollway, including the upgrade and enhancement of existing applications, the development of new applications and functionality, management of web hosting for multiple GIS and related applications, and general technical support. Specific projects include redesign and enhancement of the Right-of-Way Management tool, rebuild of the Utility Locates and Lane Closure applications into modern web applications, the Virtual Drive web-based visualization tool for Tollway corridor photography, and numerous smaller applications, utilities, and data cleanup efforts. These projects also include the direction, coordination, and management of several subcontractors assisting with various phases of the individual projects.

Project Manager, Subcontractor on Project I-13-4111, Illinois State Toll Highway Authority

Project Manager for subcontracting effort, working for the Tollway Diversity group. Great Arc's role was to provide technical and programming support to data cleanup and application development projects. Great Arc cleaned up and migrated spreadsheet and other Earned Credit Program (ECP) data into a SQL Server database and built the ECP application to manage the tracking of credits that contractors earn through the hiring of disadvantaged workers, including through the contract bid process. Great Arc also built the Diversity Hiring Portal to help manage the Tollways effort to match qualified resources from training programs and outreach centers with construction companies. These resources, once hired, become the work force that contractors can then apply credits towards in the Earned Credit Program.

Project Administrator, PINMAP Maintenance Project, Cook County, IL

Project Administrator for the Maintenance of the Cook County PINMAP system that allows users to manage parcel divisions, tax codes changes and pay by legal jobs. Great Arc designed and developed the web application to replace legacy system. Performed overall management of all contractors on the project. Performed several years of system maintenance, application enhancements, and Esri ArcGIS upgrade.

Project Administrator, Crash Analysis Application, Iowa Department of Transportation

Project Administrator for web mapping application to display all traffic crashes in the State of Iowa over a ten-year span. Application includes customizable query engine, charts, visualizations, date export tools, and a user customizable report engine. Data exposed in application is registered in the application database. Additional data is easily added without source code modification. Application was developed in a Visual Studio 2015 MVC project utilizing Entity Framework, jQuery, Bootstrap and Esri JavaScript API.

Project Manager, Cook County Application Maintenance, Cook County, Illinois

Managed a County-wide GIS migration project including migration from an ArcSDE 9.2 DB2 environment to an ArcSDE 9.3.1 SQL Server environment. Project included the migration of several key applications using Esri technology to support the 9.3.1 environment. Also developed a process to compare and correct migrated data in SQL Server against its source in DB2. Responsibilities also include migrating a Parcel Maintenance application using Esri technologies from a 9.2 to 9.3.1 environment.

Developer, MnCMAT Replacement Tool, Minnesota Department of Transportation

Primary responsibility was application design including the creation of UML diagrams (Use Case, Sequence, Component, Class, Deployment, Communication, etc.). Also built web services to support data access procedures for a web-based Crash Analysis application. Also responsible for the creation of a point pyramiding application that generates representative points at different map scales, optimizing performance and quickly rendering and displaying over 1,000,000 points.

Project Manager, Outdoor Advertising Permit GIS, Minnesota Department of Transportation

Developer, Neighborhood Application, Cook County, Illinois

Specific Areas of Expertise

Programming Languages/Tools

- ✓ C/C++
- ✓ Visual C#.Net
- ✓ Visual Basic/Visual Basic.Net/VBA
- ✓ AutoCAD .Net
- ✓ AutoCAD VBA
- ✓ Esri ArcObjects

Education

- ✓ Bachelor of Architecture, University of Illinois at Chicago 1981
- ✓ DePaul University Computer Career Program, 1993

Past Registrations

- ✓ Licensed Architect, State of Illinois 1984

Brett Ward

Associate, Great Arc Technologies, Inc., March 2000 to present

Mr. Ward serves primarily as database analyst, programmer, and implementation specialist at Great Arc, providing application development, systems integration and implementation, project and technical management, and proposal writing.

Projects

System Administrator, IllinoisVirtualTollway.com, Illinois State Toll Highway Authority

Primary duties include the setup, monitoring and maintenance of several cloud servers hosting illinoisvirtualltollway.com including: IIS web server, ArcGIS Enterprise application server (Portal, Data Store, Server), SQL Server database server, and multiple Active Directory servers. Perform regular system maintenance include scheduled Windows Updates and patches for PCI compliant security vulnerabilities. Leverage monitoring software to indicate any time a server is shutting down, offline, low on memory/disk space, unresponsive, etc. Responsible for ongoing maintenance of all custom software applications including: application performance, bug fixes and enhancements.

Developer/DBA/Implementation/Reports, Infrastructure Management, Illinois State Toll Highway Authority

Developer and database analyst for Great Arc's multi-year contracts to provide GIS services to the Tollway, including the upgrade and enhancement of existing applications, the development of new applications and functionality, SQL Server Reporting Service Report creation and maintenance, and general technical support. Worked directly on multiple applications developed in-house by Great Arc – IROW, Utility Locates, Lane Closures, IDRIVE – as well as designed, supported or/and implemented applications developed by partners – IPLANS, User Management, Pay Estimates.

DBA/Reports/Implementation, Web SAVER, Iowa Department of Transportation

Designed and developed web mapping application to display all traffic crashes in the state over a ten-year span. Application includes customizable query engine, charts, visualizations, date export tools, and a user customizable report engine. Data exposed in application is registered in the Oracle application database. Data and applications customizations are easily added without code modification. Additionally, built reports/dashboards using Power BI to allow user to visualize them within the application using the same set of crashes displayed in the application interface.

DBA/Reports/Implementation, PINMAP v2 Upgrade and Maintenance

DBA/Reports/Implementation for Parcel Maintenance web application upgrade from ArcGIS 10.2.2/SQL Server 2012 to ArcGIS 10.8.1 and SQL Server 2019 that allows users to manage parcel divisions, tax codes changes and pay by legal jobs. In addition to the application, upgrade a number of application and report enhancements were developed to support new application functionality for maintaining the County's parcels.

DBA/Reports/Implementation, Cadastral GIS Upgrade, Cook County, IL (and PINMAP Maintenance)

DBA for Esri 10.8 upgrade and enhancements to application to manage parcel divisions, tax codes changes and pay by legal jobs, used by Cook County Assessor, Clerk and Recorder of Deeds offices.

DBA, ArcGIS Tririga Consultant, Northwestern University, Evanston, IL

DBA for ArcGIS Tririga Integration project with Northwestern University that allows users access data stored within the Tririga System. Responsible for data model development and data integration with Geodatabase, SQL Server and other systems. Additionally, developed documentation to allow internal staff to maintain and update data and maps used in the application.

Developer/DBA/Reports/System Administrator, MnCMAT, St. Paul, Minnesota

Upgraded a legacy ArcGIS Server Flex Application to the JavaScript API. Additionally, developed an Administrator interface that MnDOT Staff use to manage the data in the application from downloading it (tabular, spatial and images) from an Oracle enterprise warehouse database to uploading it to an Amazon RDS SQL Server instance. Also responsible for maintaining the Web Server running in an Amazon EC3 instance as well as an ArcGIS Enterprise installation of ArcGIS Server for the mapping component of the application. Created a custom reporting engine to handle the reporting desired reporting capabilities in the system as well.

Specific Areas of Expertise

- | | | | | |
|---------------------|---|----------------|---|------------|
| ✓ ArcGIS Enterprise | ✓ | ArcGIS Desktop | ✓ | SSRS |
| ✓ Crystal Reports | ✓ | Python | ✓ | Visio |
| ✓ Crash Magic | ✓ | Microsoft.net | ✓ | JavaScript |
| ✓ CSS | ✓ | SQL Server | ✓ | Oracle |
| ✓ Power BI | ✓ | Tableau | ✓ | |

Education

Bachelor of Science, Geography, Illinois State University, 1994

David Skyles

Principal/Owner, Great Arc Technologies, Inc., July 1999 to Present

Principal of Great Arc Technologies, an information technology consulting firm specializing in GIS and spatial technologies, custom application development, and systems integration. Mr. Skyles serves primarily in the role of programmer, technical lead, and system administrator. Specific responsibilities include desktop, web and mobile application development, creation of data automation routines, and development of new and emerging technology.

Projects

Lead Developer, Crash Analysis Application and Cloud Hosting, Minnesota Department of Transportation

Designed and developed responsive web mapping application to display all traffic crashes in Minnesota. Also developed web administration application where MnDOT admins can administer users and load updated crash data from MnDOT servers to the cloud hosted environment. Architected cloud environment in Amazon AWS (Amazon Web Services) GovCloud leveraging EC2, SES, and SQL Server RDS services and continue ongoing maintenance. Application was developed in ASP.NET Core utilizing Web API, Entity Framework, jQuery, Bootstrap and Esri JavaScript API.

System Administrator, IllinoisVirtualTollway.com, Illinois State Toll Highway Authority

Primary duties include the setup, monitoring and maintenance of several Azure cloud servers hosting dozens of web applications and services in illinoisvirtualltollway.com including IIS web server, ArcGIS Enterprise server, SQL Server database server, and multiple Active Directory servers. Perform regular system maintenance including scheduled Windows Updates and patches for PCI compliant security vulnerabilities. Responsible for ongoing maintenance of all custom software applications including application performance, vulnerabilities, bug fixes, and enhancements.

Lead Developer, Infrastructure Management, Illinois State Toll Highway Authority

Technical lead for Great Arc's multi-year contracts to provide GIS services to the Tollway, including the upgrade and enhancement of existing applications, the development of new applications and functionality, and general technical support. Specific projects include: redesign and enhancement of a right-of-way management tool, design and development of a web-based visualization tool for Tollway corridor photography, design and development of a planning document viewer and manager, redesign and development of a lane closure web application, redesign and development of a utility locate web application, design of a user management web application, design and development of an environmental permitting system, design and development of a utility permitting system, design and development of a utility relocation system, and design of web status notification framework. Other responsibilities included oversight of all application development including Great Arc and subcontractor staff.

Lead Developer, Crash Analysis Application, Iowa Department of Transportation

Designed and developed web mapping application to display all traffic crashes in the state over a ten-year span. Application includes customizable query engine, charts, visualizations, date export tools, and a user customizable report engine. Data exposed in the application is registered in the application database. Additional

data is easily added without source code modification. The application was developed in an ASP.NET MVC project utilizing Entity Framework, jQuery, Bootstrap and Esri JavaScript API.

Lead Developer, Cadastral GIS Upgrade, Cook County, IL (and PINMAP Maintenance)

Technical lead for Parcel Maintenance web application that allows users to manage parcel divisions, tax codes changes and payment by legal jobs. Designed and developed application to replace legacy system. Created a custom JavaScript control library to handle advanced data features specific to the client's needs. The application was developed in an ASP.NET MVC project utilizing Entity Framework for data management.

Lead Developer, CMAP Full Circle

Designed and built an Android mobile application using the Adobe Flash platform. The mobile application allows community groups to survey parcel attributes in their neighborhoods. The data collected is submitted to a web server via a web request. Also, designed and built a web browser version of the Android application which also allows users to enter the parcel survey data and allows organization leaders to administer the group's data and user accounts and execute queries and reports.

Specific Areas of Expertise

Programming Languages/Tools

- Microsoft .NET (ASP.NET Core, Web API, ASP, WCF, MVC)
- C#, VB, C/C++, Java, Python
- SQL Server, Oracle
- HTML/CSS, JavaScript, jQuery, Bootstrap, Dojo
- Esri ArcGIS Desktop/Pro
- Esri ArcGIS Enterprise
- Esri ArcGIS Online
- Esri APIs (ArcObjects, Python, JavaScript)
- Windows Server Administration
- Microsoft Azure, Amazon AWS (EC2, Route 53, SES, RDS)

Certifications

- Esri Enterprise Administration Associate 10.5
- Esri ArcGIS Online Administration Specialty 19-001

Education

Bachelor of Science, Geography Specializing in Spatial Analysis, Statistics and Programming, University of Illinois, 1995



BRIAN BJELLAND
 SENIOR APPLICATION DEVELOPER



Relevant Experience:

16 years

Mr. Bjelland primarily performs enterprise GIS implementations, integrates GIS with third-party business systems, designs and develops web applications, creates automated processes and provides on-demand technical support and issue resolution to many of Pro-West’s clients. He serves as a technical project lead and facilitates discussions on technical requirements to ensure clients receive the right system infrastructure for their needs.

Brian also delivers training and documentation and excels at breaking down complex technical concepts into accessible terms. He has expert knowledge across the Esri enterprise platform.

PROFESSIONAL STRENGTHS

- Esri-based enterprise GIS deployment, configuration and support
- System integration and automation
- Application design and development
- Technical support
- GIS infrastructure evaluation and recommendations
- Client systems training

EDUCATION

B.S. Computer Science
Bemidji State University
Bemidji, MN
 Certified GIS Professional (GISP)

APPLICATION DEVELOPMENT EXPERTISE

WEB	
ArcGIS Server APIs	PHP
Esri JavaScript API 3.x, 4.x	Flex
ASP.NET MVC	Silverlight
WCF	XML
HTML5/CSS3	Dojo/jQuery
ArcObjects	JavaScript
Visual C++	AJAX
Visual Basic	XSL

DESKTOP	
ArcObjects	Python
ArcGIS Desktop Add-Ins	Visual Studio.NET
DATABASES	
Microsoft SQL Server	Microsoft Access
MySQL	
MOBILE	
ArcPad Application Builder	ArcGIS Server Mobile
Visual Studio.NET	

ESRI STACK			
<i>ArcGIS Enterprise</i>	Portal for ArcGIS	ArcGIS Server	Web Adaptors
	Enterprise GDB	GeoEvent Role	Security Configurations
	Active Directory Integration	ArcGIS Pro Add-Ins	
	ArcGIS Mobile SDK	ArcGIS Data Store	
<i>ArcGIS Online</i>	Configuration/branding	Feature Layers	Web maps
	Operations Dashboard	Survey123	Web AppBuilder

PROJECT EXPERIENCE

Multiple Local Governments

ESRI ENTERPRISE GIS IMPLEMENTATION & SUPPORT

Mr. Bjelland has performed hundreds of enterprise GIS projects for local governments. He is well versed in all components of enterprise implementations and modifications from evaluating client needs and producing system architecture design documents to providing training to ensure clients can effectively administer their enterprise deployment. Brian provides:

- Deployment, configuration, maintenance and support for ArcGIS Server, Web Adaptor, Portal and Data Store
- New enterprise implementations and upgrades due to new Esri version releases or a change in licensing levels
- Scaling or modifying existing enterprise deployments
- Enterprise system architecture assessments and production of design documents
- Implementing appropriate security protocols
- Client training on their enterprise deployments and upgrades
- Enterprise geodatabase implementation and maintenance including versioning and compress support
- Esri License Manager implementation, maintenance and support
- Enterprise best practices, maintenance and support for users of the Esri Enterprise Agreement (EA)

2020 Enterprise Implementation Project Examples

- Chisago County, MN
 - Setup of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS)) on on-premise infrastructure
 - Responsibilities:
 - Installation and configuration of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS))
 - Develop documentation including:
 - Software installed on each server
 - Installation locations
 - All relevant URLs and credential information
 - Training with county staff on the administration of the base ArcGIS Enterprise deployment software
- Village of Webster Groves, MO
 - Setup of the following software (ArcGIS Server, Portal for ArcGIS, Web Adaptor (IIS)) on on-premise infrastructure and migration of existing GIS content from their existing setup to the new setup
 - Responsibilities:
 - Installation and configuration of the following software (ArcGIS Server, Portal for ArcGIS, Web Adaptor (IIS))
 - Develop documentation including:
 - Software installed on each server
 - Installation locations
 - All relevant URLs and credential information

- Migrate existing ArcGIS Server services from their existing setup to their new setup
 - Training with county staff on the administration of the base ArcGIS Enterprise deployment software
- Sherburne County MN
 - Description: Setup of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS)) on on-premise infrastructure
 - Responsibilities:
 - Installation and configuration of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS))
 - Develop documentation including:
 - Software installed on each server
 - Installation locations
 - All relevant URLs and credential information
 - Training with county staff on administration of the base ArcGIS Enterprise deployment software
- Mille Lacs County MN
 - Description: Setup of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS)) on on-premise infrastructure
 - Responsibilities:
 - Installation and configuration of a base ArcGIS Enterprise deployment (ArcGIS Server, Portal for ArcGIS, Data Store, Web Adaptor (IIS))
 - Develop documentation including:
 - Software installed on each server
 - Installation locations
 - All relevant URLs and credential information
 - Trained county staff on administration of the base ArcGIS Enterprise deployment software

SYSTEM INTEGRATION & AUTOMATION

Brian has created and deployed hundreds of Extract-Transform-Load (ETL) processes that extract, manipulate and load spatial and non-spatial data from one business system to another. His expertise includes:

- Working with SQL, text files, csv files and other data sources to generate and automate data transfer processes'
- Creating and maintaining SQL views for data extraction or live integration into other business systems
- API development to support system integration
- Using existing third party APIs to support integration
- Integration best practice assessments, documentation and training
- Collaboration with third party vendors and clients regarding best practices and protocol for system integrations, taking into consideration existing tasks, IT needs, GIS needs and end user needs
- Facilitation of discussions on technical requirements with IT, GIS and non-technical stakeholders

Mr. Bjelland has performed integrations between GIS and tax, CAMA, document imaging, permitting, utility billing, AMR, payment systems, in-house/custom systems. Common integrations include:

- Avenue
- MCIS
- CPT
- BSI
- Vanguard
- Tyler Technologies
- Cityworks
- Cartegraph
- PACs
- GCS
- Transcendent
- Patriot
- BS&A
- AppXtender
- Trimin
- Fidlar
- Laserfiche
- West Central Indexing
- RTVision
- OnBase
- Official Payments
- Value Payment Systems

APPLICATION DEVELOPMENT

Brian utilizes modern development technologies, such as MVC.NET, Dojo, jQuery, and Bootstrap to create intuitive web applications that streamline user workflows. He understands the separation of client and server-side application components, as well as relational databases and efficiently performs full-stack development in all aspects of a project. He primarily interfaces with Microsoft SQL Server, using technologies such as Entity Framework, but also interacts with other databases regularly to integrate with other third-party systems. He participates in all phases of software development, from conception and design to delivery and end-user training.

TECHNICAL SUPPORT

Brian provides ongoing technical support for clients with whom Pro-West has Service Maintenance Agreements and End-to-End GIS Services. This includes on-demand support for Esri Enterprise, geodatabases, Esri licensing, security, SQL, Python, system integrations, desktop, Collector and Web AppBuilder applications (developer, Portal or ArcGIS Online). He also provides training and documentation related to system integration as needed.

He excels at breaking down technology concepts into understandable terms.



LISA SCHAEFER, GISP

Geospatial Data Specialist



Relevant Experience:

22 YEARS

Ms. Schaefer is an industry-leading expert in Esri's Parcel Fabric technology. She has led scores of Fabric implementations for local governments – both development and migration projects, up to 1.8 million parcels – is part of a select Esri Parcel Fabric testing group and has trained hundreds of editors to become self-sufficient in managing their parcel data. Lisa's entire 22-year career at Pro-West has been devoted to helping local governments efficiently manage their parcel data.

Most recently, Lisa has been a key team member on Madera County's Parcel Fabric development project.

Ms. Schaefer's daily responsibilities include the management and supervision of Parcel Fabric development and migration projects. She works with stakeholders to define the most appropriate approach for their unique circumstances, devises project processes and standards, performs data development and migration, and supervises technical teams.

Ms. Schaefer's technical expertise includes Esri's Parcel Fabric product, Coordinate Geometry (COGO) data development, parcel geodatabase models, developing topology, migrating data from a range of formats, and assigning subtypes and domains to feature classes within the geodatabase framework.

PROFESSIONAL STRENGTHS

- Implementation of Esri's Parcel Fabric
- ArcGIS Pro including Parcel Fabric in Pro
- Design and delivery of custom parcel fabric training
- Technical leadership
- Geodatabase design and development
- Spatial data development
- Spatial analysis
- Data conversion and migration
- CAD/MicroStation data conversion
- Implementing Esri Local Government Information Model standards
- Development of parcel data in a variety of software
- Process development for parcel data implementation and maintenance in ArcGIS

EDUCATION

M.S. Environmental Geology
*Eastern Kentucky University,
Richmond, KY*

B.S. Geology
Minors: Geography & Space
Studies
*Bemidji State University,
Bemidji, MN*

Certified GIS Professional
(GISP)

PROJECT EXPERIENCE

PARCEL FABRIC IMPLEMENTATION

Ms. Schaefer has been using and implementing Esri's Parcel Fabric since its inception. She is an industry leader in implementing the Parcel Fabric product for local governments nationwide.

Lisa is one of a small number of participants in Esri's testing program for new parcel management products, including the transition to the Parcel Fabric in ArcGIS Pro as the desktop Parcel Fabric environment moves towards deprecation.

Lisa has led scores of Parcel Fabric implementation projects with cities and counties, consulting with stakeholders to determine the most effective route to implementation (whether migration of data from its existing source or development from scratch in the fabric environment) and devising practical implementation strategies that ensure efficient deployment and ongoing success.

Cook County, IL – Parcel Fabric Implementation (migration)

Cook County entrusted the migration of its 1.8 million+ tax parcels to the Parcel Fabric to Pro-West. Ms. Schaefer led the technical project team, developed and tested the process, worked out details with the County staff and engaged with other vendors for integration with various County systems.

Cook County had many detailed standards for schema and many features beyond those which reside in the parcel fabric. Lisa and her team migrated all of the data, township by township, as the County completed its end-of-year assessment work. Each township of data was subjected to automated and manual checks, staged in a temporary geodatabase to review schema needs, and finally processed into the parcel fabric. Once migrated, several quality control assessments were completed to ensure the data matched the original data and was ready for editing.

Lisa developed custom training materials and led editing and maintenance training for County staff.

Canadian County, OK – Parcel Fabric Implementation (development)

Lisa was the technical lead for the development of data in the Parcel Fabric environment for Canadian County, whose goal was to modernize its GIS and take advantage of the latest technology while developing its parcel data from record documents. With the County opting to update its entire existing parcel data by also including a PLSS update, this large scale data development project was the first implementation of the Parcel Fabric in the State of Oklahoma.

Lisa coordinated the technical team to ensure deliveries were provided on time, developed project processes and standards and administered communication tools such as ArcGIS Online applications including Pre-Research Tracker, Discrepancy Tracker, and the overall Dashboard that tracks the project's progress by section, township, and parcel counts. She was responsible for efficiently addressing any issues or questions that arise from the County.

Jackson County, WI – Parcel Fabric Implementation (development)

Lisa led the collaborative effort to modernize the County's parcel data over a multi-year timeframe. Jackson County is a leader in the use of GIS in Wisconsin, with its decision to undertake this project reflecting its motivation to adopt technology and the advantages it brings.

Pro-West and the County followed a coordinated process to ensure the efficient exchange of information as the County collected and processed PLSS control before sending completed townships to Pro-West for development of the PLSS data (townships, sections, quarter sections and quarter quarter/sixteenth sections) and land records data (subdivisions including certified survey maps and plats of surveys, platted lots, encumbrances and tax parcels). Lisa's team flagged discrepancies for review by the County and made updates based on feedback. Finally, the data was delivered to the County for ongoing maintenance.

CUSTOM PARCEL FABRIC TRAINING

Ms. Schaefer has provided training to many clients as well as to conference workshop and presentation groups. She is experienced in conducting both on-site and remote (online) training and providing custom manuals for robust support post-training. Her goal is to equip trainees to become self-sufficient in maintaining their parcel data in the fabric without the need to rely on an external third-party.

Client trainings are highly customized to the client's own data that Pro-West has recently migrated or converted incorporating client business tasks and real-life use case scenarios for future maintenance or the development of other sets of data to achieve the optimal learning outcomes. Topics have included:

- Parcel Fabric data maintenance
- Legal Description Delineation for Local Government
- Client parcel maintenance

DANIELLE S. SCARFE

dscarfe@dsgis.com

Danielle Scarfe has over three decades of experience in the field of Geographic Information Systems and related technologies specializing in strategic planning, project management, enterprise GIS implementations, business process re-engineering, application development, and technology consulting. Focusing on her belief of aligning people, process and technology, Danielle is a subject matter expert in an array of GIS industry practices working with public-sector and private organizations.

WORK HISTORY

- 2002 – Present SCARFE Consulting, LLC.
- 2009 - 2013 W4Sight, LLC
- 1997 - 2002 PSOMAS & Associates, Inc.
- 1996 - 1997 Geographic Planning Collaborative, Inc.
- 1994 - 1996 Aerial Data Reduction & Associates, Inc.
- 1992 - 1994 RAM Communications Consultants, Inc.

PROFESSIONAL EXPERIENCE

- Consultant to public sector clients since 2002 as the Founder and President of SCARFE Consulting and previously as the Co-founder and Managing Principal of W4Sight.
- Specialized experience in strategic planning, designing, and managing the implementation of enterprise GIS solutions for international, federal, state, and local clientele.
- Extensive experience in GIS industry practices including environmental management, facilities management, health and human services, permitting, land administration, public safety, public works, spatial data infrastructure, transportation, and utilities.
- Senior project manager of complex, multi-departmental government projects, which include building mapping applications that provide transparency, assist in policy-making decisions, and engagement of staff and citizen participation.
- Professional services include enterprise GIS strategic planning, interagency facilitation, business process re-engineering, application requirements, system design development, software evaluations, system integrations, system deployment, system training, data conversion, and quality management.

SPECIALTIES

PROJECT MANAGEMENT
STRATEGIC PLANNING
ENTERPRISE GIS IMPLEMENTATION
NEEDS ASSESSMENTS
BUSINESS PROCESS RE-ENGINEERING
INTERAGENCY FACILITATION

CERTIFICATIONS & AFFILIATIONS

- Geospatial Information & Technology Association (GITA)
- Illinois GIS Association (ILGISA)
- WBE Certifications with the City of Chicago, Cook County, Illinois, State of Illinois
- DBA with Northeastern Illinois Regional Commuter Railroad Corp. DBA Metra

EDUCATION & TRAINING

- 1992 B.S. Environmental Design/Landscape Architecture, Rutgers University, New Brunswick, New Jersey
- Project Management Institute Training, 40-hour PMP Certificate Training Course, Even Keel Strategies
- GITA Return on Investment Training, Raleigh, North Carolina.
- Technical Writing Techniques, SkillPath Seminars, Ventura, California
- Completion of a 60-hour course in Project Management and Procedures, Bradley Consulting and Training Services
- Total Quality Management, University of California, Riverside, Temecula, CA

TECHNOLOGY EXPERIENCE

- *Professional Software:* MS Office Professional, MS Visio, MS Project, MS Publisher
- *GIS & Related Software:* ArcGIS Desktop, ArcMap/Editor, ArcView, AutoCAD, MicroStation
- *Database:* MS Access, Oracle, SQL Server
- *Operating Systems:* Windows, iOS

PROJECT EXPERIENCE



Most Recent Projects		Project Management	IT/GIS Consulting	Business Process Analysis	Requirements Analysis	Strategic Planning	Application Development	Training
Cook County, Illinois								
2022	Building & Zoning Permit Tracking Application System Support, Enhancements and Upgrade P2	•	•	•	•		•	
2020	Building & Zoning Permit Tracking Application System Support, Enhancements and Upgrade P1	•	•	•	•		•	
2020	PINMAP Application Upgrade, Enhancement and Maintenance	•	•	•	•		•	•
2019	PINMAP Application Maintenance (new contract)	•	•		•			•
2018	Homeland Security & Emergency Management Integrated Geospatial Portal	•	•	•	•	•	•	
2018	Permit Application Database Dictionary Development		•					
2017	PINMAP Application Maintenance	•	•		•			•
2016	Economic Developments' Connect to Cook Application Platform Migration	•	•		•		•	•
2015	GIS SDE and Server Migration and Update	•	•		•			
2015	CookViewer Application Enhancement		•	•	•		•	
2015	County GIS Backup and Recovery Plan Development		•					
Illinois State Toll Highway Authority								
2022	GIS Project Management and Technical Support Services (contract extension to 2021)	•	•	•	•	•	•	•
2016	GIS Project Management and Technical Support Services(contract extension to 2021)	•	•	•	•	•	•	•
Minnesota Department of Transportation								
2022	Minnesota Fleet Management Program Phase 2 Planning and Implementation	•	•	•	•	•		•
2020	Minnesota Fleet Management Assessment Phase 1	•	•	•	•	•	•	•
2020	Minnesota Fleet Assessment - Inventory Management Business Process and Software Assessment	•	•	•	•	•	•	•
2019	Minnesota Crash Management Analysis Tool Rewrite	•	•	•	•	•	•	•
Gas Technology Institute								
2022	Azure Migration	•	•			•		
2022	OHI: : Open Hydrogen Initiative	•	•					
2021	Veritas: Differentiated Natural Gas Measurement & Verification Initiative	•	•	•	•	•	•	
2020	Incident Investigation Management Workflow & Gap Analysis Project	•		•	•			
Jackson County, Missouri								
2019	GIS Program Strategic Plan	•	•	•	•	•	•	•
Chicago Metropolitan Agency for Planning								
2020	Northeastern Illinois Development Monitoring Database Evaluation & Recommendations	•	•	•	•	•		
Hennepin County, Minnesota								
2019	Data Analytics for Action Phase 2	•	•	•	•	•		

Mark Williams

Sr. Consultant / Project Manager

Experienced Project Manager specializing in Land Administration, Land Management, Land Information Systems, Natural Resources, and Forestry.

Summary

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 includes implementation of enterprise GIS software solutions in land and natural resources management. As a project manager and consultant, Mr. Williams is responsible for the overall management of GIS design and application development projects. Mr. Williams develops and implements project work plans and leads Esri technical staff during requirements, analysis, design, build, and rollout.

Career Highlights

- Developed a Central Title System for a large forestry company to track and manage surface and subsurface ownership rights and interests on over eight million acres of land
- Lead a requirements analysis and supported a vendor selection for Potlatch's Forest and Land Management System Project (NDA)

Experience

Esri: 22 yrs 10 months

Total: 26 yrs

Education

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

Managerial Experience

Mr. Williams has significant professional experience in the Land and Natural Resource Management. Specifically, he has

- Over 17 years of project management experience
- Successful implementations for multi-million dollar projects
- Technical Adviser for many large land management organizations in land and natural resources

Selected Experience

GIS Centralization, County of Maui

Mr. Williams is the Project Manager for the County of Maui GIS centralization efforts as part of the overall Maui Automated Planning and Permitting System (MAPPS) project. Mr. Williams is overseeing the migration of data from over seven departments into the ArcGIS Local Government Information Model (LGIM). This data will be utilized by Tyler's Energy Permitting System as part of this project. Time frame: 2015-Present

Cadastral GIS Upgrade, Cook County, IL

Mr. Williams is the Project Manager for the Cook County, IL Cadastral GIS Upgrade Project. Mr. Williams oversees 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. Time frame: 2013-Present

Esri Enterprise Advantage Program, AK DNR

Mr. Williams is the Technical Advisor under the Esri Enterprise Advantage Program for The State of Alaska, Department of Natural 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. Time frame: 2013-Present

Esri Enterprise Advantage Program, BLM Washington Office

Mr. Williams is the Technical Advisor under the Esri Enterprise Advantage Program for the Bureau of Land Management (BLM), 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. Time frame: 2012-Present

GIS Subsystem Upgrade, Government of Cyprus

Mr. Williams is the Project Manager for the GIS Subsystem Upgrade project for the Cyprus Integrated Land Information System. Under this project the existing GIS Subsystem, which is based on ArcINFO Coverages will be upgrade to ArcGIS Pro and the Parcel Manager. This will result in a modern platform upon which the Department of Lands and Surveys will be able to better serve their internal and external stakeholders. Time frame: 2018-Present

Employment History

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

Continued Professional Development

Training

- ArcGIS Enterprise Data Management and Collaboration (Technical Bootcamp), Esri Learning Center, Redlands, CA, 2018
- ArcGIS Enterprise: Configuring a Base Deployment, Esri Learning Center, Olympia, WA, 2018
- Get Started with Insights for ArcGIS, Esri Learning Center, Olympia, WA, 2018
- Crucial Conversations, Vital Smarts Professional Development, Olympia, 2017
- 7 Habits of Highly Effective People, Signature Series, Esri Professional Development, Olympia, 2017
- Cadastral Work Week, Esri Applied Technology, Redlands, CA, 2017
- (Beta) Introduction to Web Development Using ArcGIS API for JavaScript (IWEB), Esri Learning Center, Redlands, CA, 2016
- ArcGIS Pro: Essential Workflows, Esri Learning Center, Olympia, WA, 2016
- Survey123 ArcGIS Hands-On Workshop, Esri Applied Technology, Virtual, 2015

Presentations

- Esri Enterprise Advantage Program (EEAP) Defining and Driving Platform Vision, Esri International Users Conference, San Diego, CA, July 2015
- Defining and Driving Platform Vision, Esri Federal GIS Conference, Washington, DC, February 2015
- Best Practices for ArcGIS Version Migration, Esri Federal GIS Conference, Washington, DC, February 2014
- Esri Best Practices for Technology Change Management, Esri Federal GIS Conference, Washington, DC, February 2014

Certifications

- PMP Certification, Project Management Institute, Year Issued: 17-Mar-2008, Expiration Date: 16-Mar-2021
- Certified Scrum Master, Scrum Alliance, Year Issued: 2013, Expiration Date: 2019-05-08
- Certified Scrum Product Owner, Scrum Alliance, Year Issued: 2013, Expiration Date: 2019-05-08

Mahesh Ramiah

Senior Analyst

Expert in Web Application development, ArcPy scripting and ArcGIS Server configuration and administration.

Summary

Mr. Ramiah began his career at Esri as a technical analyst in the Professional Services Division. His experience includes performing ArcGIS for Server Jumpstarts, developing enterprise GIS Web-based applications and mobile applications. He has created a Windows 8.1 Store application to extend work from ArcGIS server into the field. He has extended the functionality of ArcGIS Desktop by developing add-ins and provided custom enhancements for ArcGIS Server in the form of custom web applications and Geoprocessing services. He has developed GIS tools and applications for a variety of uses, including offline editing, emergency management, forestry management, and conservation.

Career Highlights

- Installed and configured ArcGIS Server and Portal for ArcGIS during jumpstarts.
- Developed offline map editing capability for Windows Store and Desktop apps for the FDA's FIT-MAP project using ArcGIS Runtime for .Net SDK
- Supported the Cook County Cadastral GIS Upgrade

Experience

Esri: 16 yrs 4 months

Total: 23 yrs 8 months

Education

- Engineering, Electronics (Instrumentation Technology), Malnad College of Engineering, Hassan, Karnataka, India, 1991
-

Technical Capabilities

- **APIs & Frameworks** - .Net, Arcobjects, Dojo
- **ArcGIS Apps/Mobile** - ArcGIS Maps for Office, Collector for ArcGIS, Survey123 for ArcGIS, Web AppBuilder for ArcGIS, Navigator for ArcGIS, Operations Dashboard for ArcGIS, Insights for ArcGIS
- **ArcGIS Developer** - ArcGIS API for JavaScript, ArcGIS API for Python, ArcGIS Runtime SDK for .NET, ArcGIS API for JavaScript
- **ArcGIS Enterprise Roles and Extensions** - ArcGIS GeoEvent Server, ArcGIS Image Server, ArcGIS Monitor, Esri Production Mapping for Server
- **ArcGIS Extensions (Desktop and Enterprise)** - ArcGIS Data Interoperability, ArcGIS Data Reviewer, ArcGIS Network Analyst, ArcGIS Tracking Analyst, ArcGIS Workflow Manager
- **ArcGIS Online** - ArcGIS Open Data, Configurable Apps, Elevation Services, Esri Basemaps, Geocoding Services, Imagery Services, Story Maps, Network Services
- **ArcGIS Platform** - ArcGIS Desktop (ArcGIS Pro), ArcGIS Enterprise, ArcMap
- **Platform** - Apache, Aws, Azure, IIS, Windows
- **Programming Language** - Wpf, C#, Flex, Python, Silverlight, SQL, Java, Javascript

Selected Experience

ArcGIS Enterprise Healthcheck, Multiple Clients

As a Senior Technical Consultant, Mr. Ramiah analyzed ArcGIS Enterprise usage metrics, map document design and RDBMS metrics to provide system tuning and architecture guidance to clients such as Oregon of Transportation, City of Seattle, Snohomish County, Carlsbad Unified Water District and The Washington Surveying & Rating Bureau. Time frame: 2017-2020

American Red Cross National Sheltering System

Mr. Ramiah has supported American Red Cross as its technical lead for its National Sheltering System (NSS) Application. Mr. Ramiah oversaw the database design, designed the ETL process for migrating data from the legacy system to the new system and designed the data flow between various out-of-the-box applications that make up NSS. He also coordinated with the release management team to review test scripts and documented project workflows, data models and dependencies. Timeframe: 2017-2020

ArcGIS Server Jumpstarts and Web Launch Kits, Multiple Clients

Mr. Ramiah performed ArcGIS for Server jumpstarts at the Potlatch Corp, Microsoft, The Westervelt Company, City of Anacortes, City of Kennewick, City of Centralia, and Seattle Times, County of Maui, Northslope Borough, Nisqually Indian Tribe, Sewerage and Water Board of New Orleans, North Perry Avenue Water District, WA LNI and others. Activities performed included: basic architecture recommendation, installation and configuration of ArcGIS Server and Portal for ArcGIS, configuring and loading data into the enterprise geodatabase, publishing of map services and web mapping applications, workshop on versioning workflows, configuring users, and publishing workflows, applications on ArcGIS Online and security configuration. Time frame: 2015-2019

Employment History

Employer	Position Title	Position Dates
Esri	Senior Analyst	2002 - Present
Partech, Inc.	Senior Software Developer	2000 – 2002
Mascon	Software Consultant	1998- 2000
Information Systems Boulevard (India)	Software Programmer	1995 – 1998

Continued Professional Development

Training

- Unlisted Learning Center Courses, Esri Learning Center, Olympia, WA, 2018
- System Architecture Workshop, Esri Applied Technology, Redlands, CA, 2018
- Insights for ArcGIS Consultant Training, Esri Applied Technology, Redlands, CA, 2017

Earle Isibue

FIELD LEADER, GIS ANALYST



Earle is an innovative and synergistic GIS Analyst. Since joining the team in 2019, he has provided our clients with geospatial solutions for engineering and infrastructure projects. Earle has the ability to quickly evolve to suit a project's needs and develop sustainable solutions that mold and model, your world, your way.

PROJECT EXPERIENCE

GIS DATA COLLECTION FOR WATER UTILITIES – ASTATULA, FLORIDA

Field Leader

This project for the East Central Florida Regional Planning Council aimed to georeference legacy planning documents, extract planned/existent features, create feature classes in the utility network schema, and field verify and locate identified system features. Earle was responsible for digitizing all existent planar data and overseeing tasks for field verifying and inspecting assets. He also oversaw QA/QC on all completed data. Under his leadership, the field crew produced a geodatabase containing hundreds of water devices features, water lines segments, and junctions fittings. The project was a 100% systemwide assessment resulting in a complete database that can be imported into the GIS environment.

HIGH SPEED RAIL CARTOGRAPHIC SUPPORT

GIS Analyst

On this project for the High Speed Rail Alliance, Earle provided cartographic support for the proposed Wisconsin High Speed Rail line. He utilized ArcGIS Pro to create a GIS database and design a layout for a Map Series that represents visualization of the proposed Wisconsin section of the High Speed Rail network. He calculated buffer zones around stations to identify which communities and representational districts would be serviced. To facilitate further graphic design work for media and publicity purposes, he utilized the ArcGIS Maps for Adobe Creative Cloud plug in.

DOUCET FIELD SOLUTIONS

Field Leader

Urban GIS was contracted by Doucet Survey to develop customized field data collection tools and templates utilizing Esri's Field Maps solution. Earle contributed to defining a solution that aided them in transitioning from paper-based workflows to digital, map-based workflows that were better streamlined and adapted to the needs of their field crews. He provided several deliverables, including customized templates, data models, and processing tools for repeatable digital asset capture and field data collection solutions.

UTILITY ASSET DATA COLLECTION

Field Leader

On this project for West Virginia American Water, Earle led the team to conduct a comprehensive state-wide audit of their inventory of assets. Under his supervision, the field crew systematically traversed the state to conduct a full audit of both spatial location and asset condition for each feature. He also solved issues related to obtaining highly accurate GPS locations due to the incomplete cellular network coverage across the state, among other challenges inherent with large-scale projects such as this.

EXPERTISE

ArcGIS PLATFORM

- ArcGIS Pro and ArcMap
- ArcGIS Online
- Field Maps
- Dashboards
- Hub

Other Geographic Information Systems

QGIS, ERDAS IMAGINE, Pix4D, Cloud Compare

Programming

- Python

Statistical

- R, SPSS

Other Software

MSSQL, MS Office, Adobe CC

CERTIFICATIONS

- FAA Part 107 Remot Pilot

EDUCATION

Northern Illinois University, DeKalb, IL

- M.S. Geography (2019)
- B.S. Geography, Magna Cum Laude (2017)

Rock Valley College, Rockford, IL

- A.S. with Honors (2015)

PROJECT EXPERIENCE

SANITARY SEWER COLLECTION & SYSTEM MODELING

Field Leader

Performing under contract with Illinois American Water, Earle led the team in locating and inspecting multiple sanitary and freshwater delivery systems in the City of Alton. Acting as the GIS Analyst and quality assurer, Earle provided the client with GIS asset and flow maps of client's systems.

ELECTRICAL ASSET GPS INVENTORY

GIS Analyst

In collaboration with Hampton, Lenzini and Renwick, Earle performed an audit of the electrical utilities controlled by the Illinois State Toll Highway Authority (ISTHA). A full survey of the 294 mile system provided GPS location information and imagery for all electrical assets. Earle brought tabular inventory data containing ISTHA assets into a GIS framework. Corrected locations and feature images were then gathered using ArcGIS Collector for each of the assets. These included toll plaza power supplies, lighting controllers, traffic control signage, and CCTV locations.

TRAIL INVENTORY & SURFACE CONDITION ASSESSMENT

Field Leader

Performing under contract with Forest Preserve District of Cook County (FPDCC), Earle conducted a bike-trail pavement surface quality assessment throughout the FPDCC system. Acting as principal assessor, Earle utilized bicycle mounted vibration sensors and cameras to evaluate and image over 300 miles of trails for the client.

CHATTANOOGA WATER METER INVENTORY

Field Leader

On the Tennessee American Water project, Earle led the team in providing survey-grade locations for water meters in their service area. He oversaw tasks during the data collection process related to quality control of the provided a customer service address database. His leadership efforts ensured that the client received complete and accurate information.

POWER POLE INSPECTION

Field Leader

Performing under contract with ComEd, Earle led the team in audits and visual safety inspections of power poles. As Field Leader and quality assurer, Earle provided the client with GIS asset and safety statuses of power pole guy wires.

Matt McLeod

SENIOR PROJECT MANAGER



Matt is a driven and dynamic Senior Project Manager with 15+ years of experience in the field of geomatics. He has extensive experience in managing field data collection techniques and Geographic Information Systems design and implementation, among other essential project management capabilities. During the course of his career with Urban GIS, Matt has led numerous projects for clients in a wide range of markets and service offerings. He contributes to both project management and project execution and brings excellence to our entire team.

PROJECT EXPERIENCE

ON-CALL ENGINEERING SUPPORT

GIS Project Manager

Matt is the primary architect for workflow models as utilized by the engineering and utilities teams at Baltimore County, Maryland. He employs sophisticated and robust data processing and management techniques to deliver effective solutions for infrastructure sustainability.

UTILITY ASSET DATA COLLECTION

Field Operations Manager

Matt has organized and executed several field data capture efforts involving > 1M features for operations firms and municipal government. This project for West Virginia American Water represents one of the largest efforts in scale – extending across the entire state. Matt utilized Esri Field Maps and ArcGIS Dashboards to coordinate efforts with our crews in real-time. Using a variety of solutions, the team can capture high precision, high accuracy GPS locations across a range of conditions.

MAP CENTRIC DATA COLLECTION

GIS Project Manager

On this project for the Metropolitan Atlanta Rapid Transit Authority (MARTA), Matt designed and administered the GIS Web Service to collect and maintain map-centric inspection data. He also created custom GIS applications that helped connect all stakeholders to essential project tasks.

STORMWATER ASSET DATA COLLECTION

Field Operations Manager

As part of the City of Ballground's utility mapping initiative, Matt collected 500+ stormwater structures and their respective attributes (e.g. conveyances, catch basins, ditches, culverts, etc.). To begin, Matt devised a mission plan of the neighborhoods and road networks that would serve as a guide for the inspections. Then, he developed an acceptable schema and defined domain constraints that would be used in the field to ensure accuracy and completion in collecting the data. To ensure the very best quality data, he relied on Esri best practices for utility networks to model the feature classes and geodatabase.

EXPERTISE

ArcGIS PLATFORM

- ArcGIS Pro and ArcMap
- ArcGIS Enterprise
- ArcGIS Online:
- ArcGIS Solutions
- Web AppBuilder
- Dashboards
- Business Analyst
- StoryMaps

Other Geographic Information Systems

Google Earth Pro, Cartopac, FME

Global Position Systems

Trimble Pathfinder Office 5.x, Trimble Terra-sync 5.x, Terraflex, RTK GPS/GNSS network and usage for several makes and models

Data Modeling and Programming

Python, VBS, Esri ModelBuilder

Productivity

Microsoft Office, Microsoft Sharepoint

CERTIFICATIONS

- Geographic Information Systems Professional (GISP)
- Esri Desktop Associate 10.3
- OSHA (Occupational Safety and Health Act) 30 Hour Construction (2017)
- Trimble Terrasync and GPS Pathfinder Office
- FAA Part 107 Drone Pilot

EDUCATION

University of Georgia, Athens, GA

- B.S. Geography (2001)
- Certificate in Atmospheric Science

Middle George State University, Macon, GA

- Land Surveyor Training Certificate (In Progress)

Matt McLeod



SENIOR PROJECT MANAGER

PROJECT EXPERIENCE

ROBERTS ROAD DRAINAGE AREA – STORMWATER MASTER PLAN

GIS Project Manager

Urban GIS has engaged with the Metropolitan Water Reclamation District of Greater Chicago (MWRD) for several years in assisting in the development and management of their Stormwater Master Plan. Matt leads our team in developing solutions that highlight persistent flooding problems in the district communities within the Chicagoland area. Using a variety of tools, Matt assists in the effort to model conditions that incorporate FEMA flood hazard data, elevation models, and hydrologic modeling to determine problem areas and scope of the impact of flooding on nearby residences.

SANITARY SEWER DATA COLLECTION

Field Operations Manager

Urban GIS supported American Water Illinois in confirming and inspecting the location of 10,000 sanitary maintenance hole features. Urban GIS' work gave Illinois American Water a better understanding of their current infrastructure conditions, offering insights that can be used to analyze, prioritize, and better understand the needs for future capital improvements. Matt created and managed multiple teams to collect and model several sanitary sewer networks.

Section 4: Subcontracting or Teaming

See section 1: Executive Summary for a description of the team members comprising the Great Arc team for this project, their respective roles, as well as an organization chart. As described in that section, all of the team members in this SOW, with the exception of Urban GIS, were the original team that built the PINMAP system and have maintained it since. Those original team member roles had been consistent throughout, with the exception that once the Maintenance projects began in 2017, Great Arc took over the prime contractor role and Esri became a supporting subcontractor.

For this project, Scarfe Consulting is taking a limited role, primarily performing requirements analysis for rebuilt tools and all of the new enhancements. Scarfe was the primary project manager in the last two projects, as well as having performed requirements analysis, the major technical documentation updates, and testing. But in this project Scarfe will be limited to requirements analysis and assisting with transitioning the role of PM to Urban GIS, who will also perform some light documentation and testing duties. The original team including Scarfe has a very deep knowledge base with the PINMAP system, having built the original application along with all of the modern upgrades and enhancements in the last several years, and having worked with and performed multiple migrations of its data for over 2 decades. That knowledge base also extends to all of the PINMAP user-roles and integration points, as well as having a long working relationship with and understanding of the Cook County departments involved with the application. With Scarfe's role limited to just requirements analysis, most of her roles are now shifted to original team members Great Arc and Pro-West where that knowledge base is essential to performing the tasks in this current project. However, we have included MBE-certified Urban GIS in this project to take over some of the responsibilities where it is not as critical to have that knowledge base, including the day-to-day project management tasks.

Aside from PINMAP, our team members have a long and successful history of project work with Cook County. Esri has been supplying and supporting their technology to Cook County for over 2 decades. Great Arc has also provided expert GIS services to the County for more than 2 decades.

Contractor Roles

Great Arc Technologies, Inc.

Prime Contractor, Project Administration, Application development and support of the web portion of PINMAP, Database Administration, and related tasks.

Scarfe Consulting, LLC.

Requirements Analysis, PM Transition

Pro-West & Associates, Inc

Esri Technical expertise, responsible for most of the ArcMap portion of PINMAP, the Parcel Fabric, and related tasks.

Urban GIS, Inc.

Day-to-day Project Management and reporting, light documentation and testing.

Esri, Inc.

Esri Subject Matter Experts, technical support related to their technology.

Contact Information for Each Contractor

Prime Contractor

Great Arc Technologies, Inc.
401 S. LaSalle Street, Suite 702
Chicago, Illinois 60605
312-726-4848
Contact: Michael Scanlon, President

Subcontractors:

Pro-West & Associates, Inc.
8239 State 371 NW
Walker, MN 56484
218-547-3374 x108
Contact: Kendis Scharenbroich

Scarfe Consulting, LLC
11917 Parkside Drive
Fairfax, VA 22033
815-970-2418
Contact: Danielle Scarfe

Urban GIS, Inc
171 N. Aberdeen, Suite 400
Chicago, IL 60607
312-525-8400
Contact: Matthew McLeod

Esri, Inc.
380 New York Street
Redlands, CA 92373
360-754-4727 x 1-8915
Contact: Mark Williams

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Section 5: MBE/WBE Participation

The project team has one MBE/WBE contractor, Urban GIS, Inc. See Section 1: Executive Summary for details of Urban GIS and their role in this project. Contact information for Urban GIS, along with a list of responsibilities, is also described in Section 4: Subcontracting and teaming.

Urban GIS has a level of participation of 12% for this contract, including all estimated Maintenance T&M hours.

Section 6: Subcontractor Project Scope Documents

Following this page are 2 scope documents from subcontractor Pro-West and Associates describing their proposed work on some of the Toolbar tool updates, and on the data/parcel fabric migration.

Cook County, IL PINMAP Toolbar Upgrades

Date: 3/14/2024

CLIENT RESPONSIBILITIES

- Provide current backup of the enterprise geodatabase.
- Be available for any questions that may arise during the project.
- Be available for during the client testing phase of the application.
- Client will have an ArcGIS Enterprise setup at version 11.0 for the test environment.
 - This includes the following:
 - ArcGIS Server and Portal installed and configured
 - SQL Server 2016 or higher
 - Portal for ArcGIS software is federated with the ArcGIS Server software
- Client will provide URL to the Portal for ArcGIS software for the test environment.
- Client would provide an enterprise geodatabase on the test environment where the Parcel Fabric for Pro data would reside.
- Client will provide PWA a SQL Server account to be used to load the Parcel Fabric for Pro data into the test environment.
- Client will provide PWA a user within the Portal for ArcGIS software in the test environment, that has the following permissions:
 - Publish the parcel fabric as a feature service.
 - User must have a Parcel Fabric Add-On user type assigned.
- Client will have an ArcGIS Enterprise setup at version 11.0 for the production environment.
 - This includes the following:
 - ArcGIS Server and Portal installed and configured
 - SQL Server 2016 or higher
 - Portal for ArcGIS software is federated with the ArcGIS Server software
- Client will provide URL to the Portal for ArcGIS software for the production environment.
- Client would provide an enterprise geodatabase on the production environment where the Parcel Fabric for Pro data would reside.
- Client will provide PWA a SQL Server account to be used to load the Parcel Fabric for Pro data into the production environment.
- Client will provide PWA a user within the Portal for ArcGIS software in the production environment, that has the following permissions:
 - Publish the parcel fabric as a feature service.
 - User must have a Parcel Fabric Add-On user type assigned.
- Client will provide access to machine(s) that have ArcGIS Pro 3.0 installed.

DELIVERABLES

- Development
 - Migrate the following tools from the current PINMAP toolbar in ArcMap written in ArcObjects to an ArcGIS Pro toolbar written in the ArcGIS Pro SDK .net for ArcGIS Pro version 3.0 (ArcGIS Enterprise 11.0)
 - Manage Elevated Parcels
 - Add Extender
 - Add Property Hooks
 - Copy Annotation
 - Upgrade Fabric Publishing Script to version 3 of python
- Setup on Test Environment
 - Load the Parcel Fabric data into an enterprise geodatabase on the test environment.
 - Create a feature service for the Parcel Fabric to the Portal in the test environment.
 - Install the ArcGIS Pro toolbar
 - Test tools within ArcGIS Pro toolbar
- Setup on Production Environment
 - Load the Parcel Fabric data into an enterprise geodatabase on the production environment.
 - Create a feature service for the Parcel Fabric to the Portal in the production environment.
 - Install the ArcGIS Pro toolbar
 - Test tools within ArcGIS Pro toolbar
- Setup ArcGIS Pro toolbar in test environment at the county for testing by team and county staff
 - County staff would have 14 days for testing.
- Create documentation for the updated tools in the ArcGIS Pro toolbar
- UAT document updates
- Toolbar Training
 - PWA would have 1 remote training session with the client to review the new ArcGIS Pro toolbar tools.

PROJECT RISKS & MITIGATION

1. Stakeholders are not identified at the beginning of the project
 - a. Mitigation: Client and PWA will identify stakeholders at the project kick off. If changes in stakeholders occur, they will be communicated to the stakeholders immediately to eliminate and/or minimize timeline and budget changes.
2. Stakeholders change throughout the project
 - a. Mitigation: Maintain the same project stakeholders throughout the project. If stakeholders do change, it is the client's responsibility to communicate the purpose of the project to the new stakeholder or for PWA to communicate changes to the client. If the project changes due to a change in stakeholders, additional charges may apply and the timeline may be affected.

3. Changes to toolbar requirements occur after the project has begun
 - a. Mitigation: Notify stakeholder team of changes as they are known. Additional costs or timeline adjustments may occur.

4. Feedback. Various tasks will be completed throughout the project. It is the responsibility of project stakeholders to ensure that feedback is provided per the timelines agreed upon.
 - a. Mitigation: communicate feedback/task delays to project stakeholders immediately. Project budget and/or timelines may be affected by delays

SCHEDULE

- | | |
|--|--------------|
| • Kick off call | Week 1 |
| • Setup Fabric Data for Development Environment <i>(This will need to be completed prior to toolbar development)</i> | |
| • Manage Elevated Parcels Tool Development & Testing on Dev Environment | Week 3 - 4 |
| • Add Extender Tool Development & Testing on Dev Environment | Week 4-5 |
| • Add Property Hooks Tool Development & Testing on Dev Environment | Week 6-7 |
| • Copy Annotation Tool Development & Testing on Dev Environment | Week 10 - 11 |
| • Fabric Publishing Tool Development & Testing on Dev Environment | Week 21 |
| • Setup Toolbar on Test Environment at County and execute Testing | Week 22 - 25 |
| • County Testing | Week 26-30 |
| • Create Documentation | Week 31 |
| • Production Installation for Toolbar | Week 32 - 33 |
| • Training with county staff | Week 33 |

COST ESTIMATE

\$116,392.20

PROWEST

& Associates



esri

Partner Network
Gold

Cook County, IL

Parcel Data Upgrade – Enterprise Deployment & ArcGIS Pro Editing & Maintenance Training

Submitted by:

Pro-West & Associates, 8239 State 371 NW, Walker, MN 56484

March 14,2024

It's important to know



State and Local
Government
Specialty



Parcel Management
Specialty



ArcGIS Online
Specialty



Release Ready
Specialty



esri Partner Network
Gold



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Project Description

Cook County wishes to upgrade their current ArcMap parcel fabric to the latest ArcGIS Pro parcel fabric platform to take advantage of the latest technology and benefits such as using any editing tool with the parcel fabric editing.

Cook County will be upgrading its Enterprise environment to 11.0 which means ArcMap is no longer an option and upgrading all current ArcMap items to ArcGIS Pro is a must. Along with **Enterprise 11.0**, the County will update the editors' desktop software to **ArcGIS Pro 3.0** or higher to remain in sync. These upgrades allow for the upgrade of the Parcel Fabric from the current ArcMap format to the **ArcGIS Pro Parcel Fabric version 5** – the most current version available.

ArcGIS Enterprise release	ArcGIS Pro releases	Parcel fabric version
10.7.1	2.4 (deprecated)	1 (deprecated)
10.8	2.5 (deprecated)	2 (deprecated)
10.8.1	2.6 (deprecated)	3 (deprecated)
10.9	2.7, 2.8	4
10.9.1	2.9, 3.0, 3.1, 3.2	5
11.0	3.0, 3.1, 3.2	5
11.1	3.1, 3.2	5
11.2	3.2	5

Project Details

Project communication, known project challenges and recommendations are detailed in the following sections.

Communication

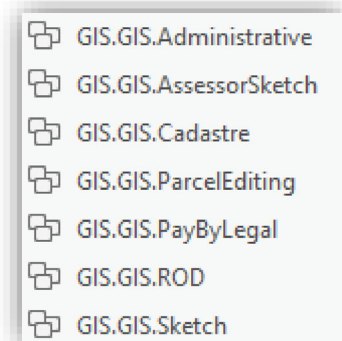
1. Kick-off call
 - a. Review project contract and scope of work
 - b. Review source data
2. Parcel Data Upgrade Logistics
 - a. Phases – pilot, Test, Production
 - b. Client halts editing
 - c. Communication schedule
3. Deployment Needs
4. Training
 - a. Discuss training schedule
 - b. Discuss training environment



Data Sources

The upgrade requires the most current set of County data – more specifically, the following feature datasets:

- **ParcelEditing,**
- **Cadastre,**
- **AssessorSketch,**
- **PayByLegal, and**
- **Sketch.**



The County previously provided a .bak file for review. Pro-West determined that an upgrade can be completed to the ArcGIS Pro platform from said .bak file.

- Pro-West will require a new .bak file for the final upgrade into the Production environment.

The current coordinate system is **NAD 1983 StatePlane Illinois East FIPS 1201 (US Feet)**.

- No projection or changes will be made to this coordinate system during the upgrade.

Current County schema regarding attribute fields and domains will not change during the upgrade.

- **No schema consultation with the County is planned.**
- Schema consultations between Pro-West & GAT will be scheduled for anticipating changes to custom tools and scripts.

Parcel Editing Feature Dataset

The current parcel fabric resides in the ParcelEditing feature dataset along with additional features that are associated with day-to-day editing that need to be included in a platform upgrade.

- All annotation will be upgraded to ArcGIS Pro annotation.
- All Line feature classes that use COGO fields will be upgraded to ArcGIS Pro COGO-enabled attribute fields. This is a change from text fields to number (Double) fields.
- Parcel Fabric will be upgraded from ArcMap platform to ArcGIS Pro.

Cadastre Feature Dataset

The Parcel Fabric data and associated data from ParcelEditing is published to Cadastre for use in other applications as simple feature classes.

- All annotation will be upgraded to ArcGIS Pro annotation.
- All Line feature classes that use COGO fields will be upgraded to ArcGIS Pro COGO-enabled attribute fields. This is a change from text fields to number (Double) fields.

Assessor Sketch, Pay By Legal, & Sketch Feature Datasets

These three feature datasets are used for sketching features by different departments.

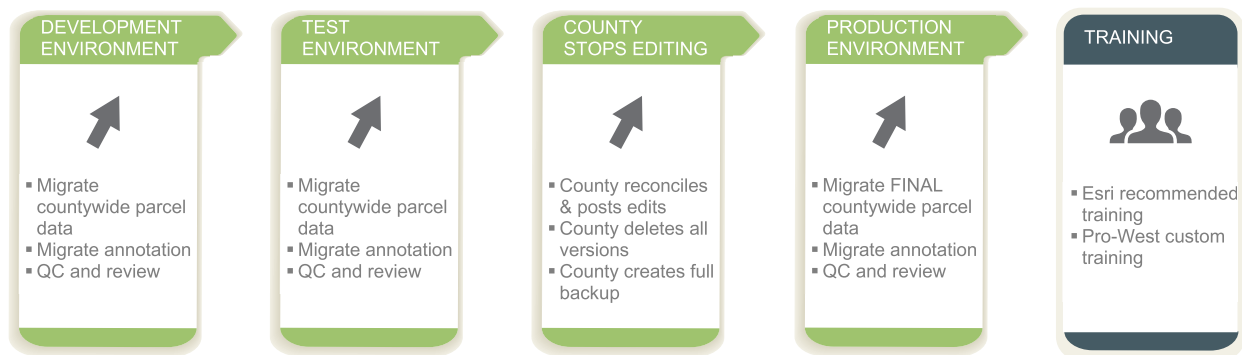
- All annotation will be upgraded to ArcGIS Pro annotation.
- All Line feature classes that use COGO fields will be upgraded to ArcGIS Pro COGO-enabled attribute fields. This is a change from text fields to number (Double) fields.

County Review Prior to the Upgrade

1. Parcel Types
 - a. review for any non-standard parcel types in use.
2. Stand Alone Feature Classes for Inclusion
 - a. Determine if there are any that are no longer being maintained and can be removed.
3. Unjoined features
 - a. Unjoined features will not upgrade. Hence, if the County has any unjoined features to be retained, join them to the parcel fabric.
 - b. Pro-West will upgrade the data and any unjoined features will be dropped.

Pro-West will review these examples on a call to ensure the County knows what to review and edit. Upon completion, Pro-West will not be reviewing the County's work and the migration will continue.

Project Methodology



Proposed Phases

Pro-West understands that the County will require several phases to ensure full testing can be completed prior to final deployment into the Production environment. The following is a proposed schedule for the phased implementation. Details from the phases are explained in the sections that follow.

1. Development Environment

Create **Development environments at Pro-West and Great Arc** to allow Pro-West & Great Arc to test custom tool configurations. No development environment will be configured at the County.

County will review pilot upgrade as a file geodatabase only.

- a. In-house Development enterprise environment set up for Pro-West and Great Arc
- b. Pro-West will prepare enterprise geodatabase to replicate .bak file previously received
 - i. Feature datasets
 - ii. Feature classes
- c. Pro-West will prepare file geodatabase schema

- i. Using .bak file previously received for review
- d. Pro-West will conduct a data review
 - i. Remove Null features
- e. Pro-West will upgrade the ParcelEditing feature dataset for **one township** (TBD)
 - i. Using .bak file previously received for review
 - ii. Parcel Fabric
 - iii. Non-fabric features
- f. Pro-West will deploy file geodatabase to in-house **Development** enterprise environment
 - i. Publish Parcel Fabric Editing Service from enterprise geodatabase
- g. Pro-West will configure enterprise Parcel Data publishing script
 - i. To publish ParcelEditing feature dataset features into Cadastre feature dataset
- h. Pro-West to conduct full testing in **Development** environment
 - i. Generate UAT use cases for parcel data upgrade
 - ii. Generate Acceptance documentation for parcel data upgrade
 - iii. Test use cases for parcel data upgrade
- i. Deliver file geodatabase of parcel data upgrade and drafts of UAT use cases and acceptance documentation to the County

2. Test Environment

Deploy to **County Test environment** for full testing of countywide data, custom tools and scripts. See “Deployment Section” for specifications/responsibilities.

County will participate in review and testing in the enterprise environment.

- a. Pro-West and Great Arc will verify **County Test** enterprise configuration
 - i. Pro-West will prepare **County Test** environment enterprise geodatabase for data deployment
- b. Pro-West will prepare countywide enterprise geodatabase in **Development** environment to replicate .bak file previously received
- c. Pro-West will conduct a countywide data Review
 - i. Remove Null features
- d. Pro-West will upgrade the ParcelEditing feature dataset for **full County**
 - i. Using .bak file previously received for review
 - ii. Parcel Fabric
 - iii. Non-fabric features
- e. Pro-West will deploy Countywide file geodatabase to **County Test** enterprise geodatabase
- f. Pro-West will publish Parcel Fabric Editing Service on **County Test** enterprise
- g. Pro-West will configure Parcel Fabric publishing script on **County Test** enterprise
 - i. To publish ParcelEditing feature dataset into Cadastre feature dataset on **County Test** enterprise
- h. Full testing on **County Test** deployment
 - i. Pro-West to test UAT use cases on **County Test**
 - ii. Pro-West to provide results to County staff
 - iii. Pro-West to provide assistance to County staff to work through UAT use cases
 - iv. Pro-West to meet with County staff to accept UAT results.

At this point in the parcel data upgrade, all parcel data UAT use cases have been tested, reviewed, discussed and accepted. If there were any issues, they have been reconciled, re-tested and accepted.

3. County Stops Editing

To proceed to the final steps of parcel data upgrade for final **Production** environment, the following items are **REQUIRED** from Cook County:

- a. **ALL** edits to be completed and saved
- b. **ALL VERSIONS** are REQUIRED to be ...
 - i. **RECONCILED,**
 - ii. **POSTED, &**
 - iii. **DELETED**
- c. **Full Production Enterprise Geodatabase Backup** to be completed
- d. **Full .BAK file to be supplied** to Pro-West & Great Arc for **FINAL** upgrade

4. Production Environment

Deploy to **County Production environment** for full **FINAL** deployment of countywide data, tools, and scripts. See “Deployment Section” for specifications/responsibilities.

County to participate in all final reviews and testing.

- a. Pro-West and Great Arc will verify **County Production** enterprise configuration
 - i. Pro-West will prepare **County Production** environment enterprise geodatabase for data deployment
- b. Pro-West will prepare countywide enterprise geodatabase in **Development** environment to replicate FINAL .bak file
- c. Pro-West will conduct a countywide data Review
 - i. Remove Null features
- d. Pro-West will upgrade the ParcelEditing feature dataset for **full County**
 - i. Using FINAL .bak file received
 - ii. Parcel Fabric
 - iii. Non-fabric features
- e. Pro-West will deploy Countywide file geodatabase to **County Production** enterprise geodatabase
- f. Pro-West will publish Parcel Fabric Editing Service on **County Production** enterprise
- g. Pro-West will configure Parcel Fabric publishing script on **County Production** enterprise
 - i. To publish ParcelEditing feature dataset into Cadastre feature dataset on **County Production** enterprise
- h. Full testing on **County Production** deployment
 - i. Pro-West to test UAT use cases on **County Production**
 - ii. Pro-West to provide results to County staff
 - iii. Pro-West to provide assistance to County staff to work through UAT use cases
 - iv. Pro-West to meet with County staff to accept UAT results.

5. Training

County training plan will be set to include self-paced learning, online instructor-led training, and post training videos to reference as needed. Trainees will receive a digital training manual to use whether left as a digital version or printed if students so choose.

- a. Esri Learning Plan
 - i. Combination of:
 1. Free, self-paced learning
 2. Online, live, instructor-led training for cost
 - ii. Estimated full 40-hour week of learning in total per person
- b. Pro-West Custom Training Plan
 - i. All live instructor-led training
 - ii. Estimated 8 full days
 1. 5 days of standard ArcGIS Pro Parcel Fabric Editing and Maintenance
 2. 3 days of incorporating custom tools and PINMAP integration tools
 - a. Review tools in the toolbar regarding the editing workflow.
 - b. Tax map generation and managing insets tool within the toolbar

Plan for Incorporating Boundary Changes

A parcel fabric upgrade will leave the County without the ability to incorporate changes from the time the **FINAL** data is sent to Pro-West until the time the data is deployed at the County – essentially the timeframe of phase 3 – Production. Any updates that come in during that time will NOT be updated by Pro-West. The County may hold those edits to be used for future training purposes.

Parcel Data Upgrade

The Parcel Data upgrade is a multi-step process including data review to remove null geometries, loading of the data into the ArcGIS Pro schema, and post-processing steps to ensure the final geodatabase is optimized for editing and production.

NOTES:

- The Parcel Data upgrade set of processes will take place three times throughout the overall project.
 - Development phase
 - Test phase
 - Production phase
- The Parcel Data upgrade processes will take place in a file geodatabase environment and will be deployed to the County enterprise environments. Processes will not occur directly on the County's enterprise system.

Schema Preparation

Geodatabase schema will be unchanged for those features that are not parcel fabric. Underlying storage parameters will be upgraded, but no changes to attribute fields, domains, or subtypes will occur.

Schema will be modified for parcel fabric features as the overall structure of the parcel fabric will change. Therefore, schema will need to be prepared to ensure all elements of the current parcel fabric will be found in the final resulting ArcGIS Pro parcel fabric.

To achieve this parcel fabric schema preparation, the current schema including which parcel types are in use, whether there are any null geometries, and standard elements, such as attribute fields and domain use, will be reviewed and considered for upgrade needs.

- Parcel types will be reviewed to ensure proper assignment. If there are features that do not fit the typical Cook County usage, the County staff will be asked to review and reassign or remove said features.
- Null geometries will be deleted. These may be from any type of feature – point, line, polygon or annotation.
- Attribute fields will be modified according to the parcel type in use . . . i.e. PLSS attribute fields will be removed from platted Lots, for example.
- Domain use will be reviewed and only those domains in use will be propagated to the new geodatabase.

Parcel Fabric Upgrade

Current County parcel fabric to be upgraded into the parcel fabric will be used in the creation of the schema for the new geodatabase.

Standard Parcel Fabric Features

- The current attribute fields with their details will upgrade automatically to the ArcGIS Pro parcel fabric schema to assure all the incoming data will recognize the attribute fields immediately.
- The current geodatabase domains, whether default or County-created, will be automatically upgraded and applied in the ArcGIS Pro parcel fabric format.
- The current coordinate system in the County parcel fabric will be the same in the final ArcGIS Pro parcel fabric.

The parcel fabric upgrade will use geoprocessing steps to append the data from the County's current parcel fabric to the new ArcGIS Pro platform. Several steps ensure that the data is upgraded, Editor Tracking is enabled, and that fabric topology is engaged.

Once the data completes the initial geoprocessing steps, Pro-West will then apply several post-processing and quality control steps to evaluate and report the success of the update.

Pro-West will upgrade the following features to the parcel fabric in the ArcGIS Pro platform.

Item	
Parcel Fabric Types	Currently used values in the IrParcelType domain become Parcel Fabric Types <ul style="list-style-type: none"> • PLSS Control • PLSS Townships • PLSS Sections • PLSS Quarters (PLSS Quarters, Sixteenths, & Govt Lots) • Simultaneous Conveyance (Subdivisions) • Conveyance Division (Platted Lots) • Tax Parcels • Encumbrance
GDB Schema	County-Added Domains County-Added Attribute Fields

Non-Standard Parcel Fabric Features

Some features do not upgrade from the ArcMap parcel fabric platform at all or will upgrade to a new location or feature type.

ArcMap Parcel Fabric Item	ArcGIS Pro Result
Control	Upgrades into “Points” class and are attributed to discern them from other points.
Unjoined features	Do not upgrade.
Unclosed features	Upgrade as Connection Lines.
LSA Vectors	Do not upgrade.
LSA Associations	Do not upgrade.
Linetypes	Origin to POB line types upgrade to Connection Lines.
Relationship classes	Do not upgrade but will be restored in the new geodatabase.
Tables	Do not upgrade but will be copied to the new geodatabase.
LinePoints	Do not upgrade.
Plans	Upgrade to Records class. <ul style="list-style-type: none"> • If there are less than 2000 features associated to a Record, a spatial Record feature will be created. • If there are more than 2000 features associated to a Record, a spatial Record feature will not be created. • If a Record has no associated features, no spatial Record feature will be created.

Annotation Upgrade

Any annotation that is being upgraded as a part of the ArcGIS Pro platform will require conversion to ArcGIS Pro Annotation. As such, the annotation will **no longer** be accessible via ArcGIS ArcMap Desktop application. Any map services that use annotation must be republished via ArcGIS Pro, which will be completed by the County and is not covered in this scope.

All annotation will be upgraded separately from the parcel fabric data update.

Stand-Alone Annotation

Stand-alone annotation feature classes will be upgraded to ArcGIS Pro annotation “in place”, meaning it will remain in the same dataset in which it currently resides. No other conversion is necessary for stand-alone annotation.

Feature-Linked Annotation

Feature-Linked annotation relies on a relationship class to maintain said annotation. To upgrade this annotation to the ArcGIS Pro platform, a few steps are required.

- Relationship is removed
- Annotation is upgraded
- Relationship is restored

Non-Parcel Fabric Data Upgrade

Cook County requires upgrading the following: all features in the Parcel Editing, Cadastre, Assessor Sketch, Pay By Legal, and Sketch feature datasets to ensure compliance with the ArcGIS Pro platform.

Points

Point feature classes do not need any further upgrade to comply with the ArcGIS Pro platform.

Lines

Line feature classes that use COGO fields will need to be upgraded with new COGO fields. The current ArcMap parcel fabric has COGO fields as Text fields whereas ArcGIS Pro uses numeric (Double) fields for COGO storage.

These new COGO fields will be enabled on any line feature class that currently has the original COGO fields enabled. The former fields will not be removed, the new fields will be added for new work from this point forward.

Polygons

Polygon feature classes typically do not need any further upgrade to comply with the ArcGIS Pro platform.

Post-Upgrade Data Review

Pro-West will conduct the following tasks *after* the data has been upgraded to the ArcGIS Pro platform. The following tasks will be discussed in detail with the County during training.

Parcel Fabric Standards Checks

Task	Notes
Parcel Fabric Topology checks	<p>Utilizing the default topology rules set forth by Esri for an ArcGIS Pro parcel fabric, Pro-West will run the Validate Topology tool on the upgraded set of data and report the findings.</p> <p>Pro-West will work with the County during training to highlight:</p> <ul style="list-style-type: none"> • why these errors were found, • what can be done to resolve them, and <p>NOTE: Pro-West will not be responsible for resolving topology errors found.</p>
Quality Ribbon checks	<p>The Parcel Fabric in ArcGIS Pro introduces the Quality ribbon with additional tools for quickly finding and visualizing gaps, overlaps, and short segments that could potentially cause editing issues in the long-term.</p> <p>Pro-West will work with the County during training to educate staff when to use these tools and how to resolve the findings.</p> <p>NOTE: Pro-West is not responsible for resolving any errors found.</p>

Overall Quality Control

Quality control is essential to Pro-West’s procedures to ensure data integrity and to limit data entry errors. Some of the procedures to be utilized include the following:

- Geodatabase features such as domains are used to control how data entry may occur utilizing “drop-down” lists that create a controlled environment for data entry, thus eliminating typographical errors and inconsistency. The Parcel Fabric utilizes domains in its features to add additional information and clarity to the data therein.
- Geodatabase topology will also be utilized as a quality assessment tool in the Parcel Fabric since it validates spatial rules set forth between and among certain classes of features.
- In addition, Pro-West incorporates additional assessment measures to ensure a quality final product. These tools involve automated and manual analysis, both tabular and visual.
- Finally, the Parcel Fabric involves newer quality assurance standards and technology such as the implementation of the following tools and procedures:
 - Quality Ribbon tools to check for gaps, overlaps, and short segments.



The final geodatabase will be subject to review by County staff to verify that the data was upgraded successfully. The geodatabase will be supplied to the County via a file geodatabase for review and the County will review in the pre-determined timeline set by the project team. The County will provide written and verbal approval of the deliverable.

Deployment

Deployment will happen twice in the County environments – once in Test and once in Production.

As has been discussed with the County in previous communication for both the test and production environment:

1. The County will be using an **enterprise deployment** option which means . . .
 - The **County will provide** an Enterprise environment which will be at version **11.0 or higher**
 - The data which will be **deployed by Pro-West** to the County Test and Production enterprise environments will reside in an enterprise geodatabase
 - **Pro-West will publish** an editing feature service to accommodate editing of the parcel data from the enterprise geodatabases when the data is deployed to Test and Production.

2. The following **County-provided** hardware & software requirements must be in place **prior** to project delivery:
 - ArcGIS Server and Portal installed and configured
 - Licensed at **11.0 or higher**
 - Portal needs to be federated with ArcGIS Server
 - Enterprise Geodatabase needs to be 11.0 or in sync with the Server and desktop software
 - SQL Server 2016 or higher
 - SQL Server account with access to the enterprise geodatabase
 - Each fabric editor needs to be assigned a Creator user type within the portal software
 - **Parcel Fabric add on user type** needs to be assigned to each portal account that requires parcel fabric editing ability
 - **ArcGIS Pro** software must be installed
 - Standard or Advanced licensing
 - **Version 3.x** or higher (specific versions to be reviewed and determined)

NOTE: Enterprise and ArcGIS Pro sync up at specific versions. Please keep these versions in mind.

ArcGIS Enterprise release	ArcGIS Pro releases	Parcel fabric version
10.7.1	2.4 (deprecated)	1 (deprecated)
10.8	2.5 (deprecated)	2 (deprecated)
10.8.1	2.6 (deprecated)	3 (deprecated)
10.9	2.7, 2.8	4
10.9.1	2.9, 3.0, 3.1, 3.2	5
11.0	3.0, 3.1, 3.2	5
11.1	3.1, 3.2	5
11.2	3.2	5

User Acceptance Testing

Upon deployment of the upgraded parcel data into the County's Test and Production environments, User Acceptance Testing (UAT) will commence. Pro-West will provide use cases to be tested and provide documentation for the testing staff to report findings and sign for acceptance.

- Pro-West will be the first to conduct UAT with the provided use cases.
- Upon Pro-West acceptance, the County staff will commence UAT.
- Pro-West staff will be available for assistance, questions or clarifications as needed while the County staff conducts UAT.

If the County UAT is not successful, the following mitigation steps will be taken:

1. County will report unsuccessful testing to Pro-West and a meeting to review will be scheduled to review the test case, watch the County's staff work through the test case, and determine the reason for failure.
2. Pro-West staff will commence corrective action which may require one of the following, but not restricted to one of the following:
 - a. Education of County staff of the tools, data, or other aspect of the use case, test, or data.
 - b. Small edits to the geodatabase in place on the County's Test or Production environment whether schema related or data related.
 - c. Further large-scale editing which may require an additional deployment into the County's Test or Production environment.
3. Pro-West & County will re-test use case.
4. Steps will be repeated until successful completion

Upon final successful completion of UAT, the County will sign UAT documentation for acceptance.

Editing and Maintenance Training

Pro-West uses a two-step approach to training to give editors custom training from the ground up.

Esri Training

First, Pro-West recommends introductory Esri training. This includes the **Parcels and Land Records Management Learning Plan** including several free, self-paced courses as well as the Esri online, 3-day, instructor-led course “*Working with Parcel Data in ArcGIS Pro*” which introduces the ArcGIS Pro parcel fabric to the editors. Here, students learn the basics about the concept of the parcel fabric, the structure of the parcel fabric, and perform some basic edits. Where there is cost, be aware that **the cost for any Esri training is NOT included in the price below.**



- [Parcels and Land Records Management](#) learning plan
 - Specific Course: [Working with Parcel Data in ArcGIS Pro](#)

If County staff are in need of introductory courses regarding ArcGIS Pro itself, please refer to these additional Esri learning plans. The cost for most of these courses is free and most are self-paced. Where there is cost, be aware that **the cost for any Esri training is NOT included in the price below.**

- [ArcGIS Pro Fundamentals Learning Plan](#)
- [Migrate to ArcGIS Pro Learning Plan](#)

Custom Pro-West Parcel Fabric Training

Secondly, Pro-West provides custom training specifically for editing and maintaining the ArcGIS Pro parcel fabric. During this hands-on training, Pro-West works with the County staff to perform actual edits with the County’s newly migrated data. The custom course is to ensure that business needs are met and that the editing staff understand the details and nuances to match these needs. Pro-West runs sessions that include topic discussion, demonstration, and hands-on exercises for the editors.



Pro-West will provide a variety of editing procedures and exercises to follow such as:

- What to do when the data isn’t perfect
- How to complete edits that don’t fit a typical workflow model
- Pitfalls to avoid when editing

A digital training manual is provided to each student prior to the Pro-West training which can be printed if the student wishes. Exercises and training topics include:

- Overall understanding of the County’s geodatabase structure and schema
- New Parcel Creation
- Parcel Splits and Combines
- Boundary Line Adjustments
- New Subdivision
- Creation and Maintenance of Encumbrances
- Parcel Fabric quality maintenance and checks to perform

All trainees will also be provided with Pro-West’s own series of “How-To” videos including short videos for some of the common tasks editors face.

Typical Parcel Fabric Training Schedule

Day	Topics Covered
Day 1	<ul style="list-style-type: none"> Parcel Fabric Structure & Schema Editing Environment Settings
Day 2	<ul style="list-style-type: none"> Review Editing Tools
Day 3	<ul style="list-style-type: none"> Hands-On Exercises <ul style="list-style-type: none"> Split and Merge Parcels New Subdivision Plus many more...
Day 4	<ul style="list-style-type: none"> Hands-On Exercises, con’t
Day 5	<ul style="list-style-type: none"> Quality Control Recommendations moving forward

Custom Training for Additional County Customizations

There are other inclusions to consider such as custom tools and PINMAP integration. These trainings will be incorporated AFTER the completion of the parcel fabric training described above.

Additional topics will include the following:

- Review custom editing tools
- Review PINMAP integration
- Determine day-to-day workflows for editing and maintaining the data from start to finish
Cook County may wish to include additional staff for the last portion to run through an edit from start to finish. This will require an entry into PINMAP, the working of that job by editing staff, and reconciling/posting the edits.

Expected Additional Training Schedule

Day	Topics Covered
Day 1	Review custom editing tools <ul style="list-style-type: none"> Options Form Manage Elevated Parcels Add Extender Add Property Hooks Copy Annotation Web View Zoom to Job Create Division Tax Code Change Annexed Tax Code Change Disconnected Validate Boundaries
Day 2	Review PINMAP integration tools

	<ul style="list-style-type: none"> • Assign Attributes • Snake Attributes • Additional Great Arc staff will be required for this day
Day 3	Review full workflow <ul style="list-style-type: none"> • Additional County, Great Arc & Pro-West staff will be required for this day

Pre-Training Meeting

Pro-West will host a Pre-Training Meeting (on-line) in which all aspects of trainee technology will be reviewed to ensure the training environment is ready to go for all trainees and the Pro-West trainer. Items to be reviewed include the following:

- Enterprise version verification
- Enterprise geodatabase version verification
- Parcel Fabric version verification
- Trainee ArcGIS Pro version verification
- Parcel Fabric service is available and editable for each trainee
- Parcel Fabric User Type Add-on is assigned to each trainee
- Trainees add service to a project, create a version and make an edit (ensures all permissions are set)
- Training facility at County has been reserved and available for training to held.

If the items above are not correct or are not running properly, training may need to be rescheduled to a time after a follow up meeting can verify changes have been made and all services and permissions are running properly.

Training Platform

Training will be administered:

- **in-person on-site** at Cook County

Project Assumptions

Overall Project

1. The County will provide Pro-West with source data and remote access to database systems (as necessary). This includes:
 - a. All related GIS data as a .bak file
 - b. Server access with permission to edit, store and create scheduled tasks
 - c. Pro-West uses Beyond Trust for remote connections and will discuss this during project kick off to determine the best path for remote connections.
2. Pro-West will conduct all data upgrade tasks at Pro-West offices and will deliver the data to the County as a file geodatabase.
3. County is responsible for updating any and all applications, templates, or solutions with the upgraded data sources as needed.
 - a. Pro-West will not be updating any map templates, online solutions, or other application files or projects.

Update & Deployment Assumptions

1. Pro-West will receive from the County all necessary data.
 - a. All data will be in one coordinate system. Pro-West will not be conducting any coordinate system or datum projections.
 - b. Pro-West will not generate data nor attributes unless specifically noted above.
2. No schema changes other than what is specifically necessary for an upgrade from ArcMap to ArcGIS Pro will be conducted.
3. Prior to County providing the FINAL data to Pro-West for migration into Production,
 - a. ALL VERSIONS WILL BE RECONCILED
 - b. ALL VERSIONS WILL BE POSTED
 - c. ALL VERSIONS WILL BE DELETED
4. Topology resolution is a County task.
5. The County will be using an enterprise deployment option version 11.0 or 11.1.
6. The County will have all editors upgraded to ArcGIS Pro 3.0 or 3.1 (depending upon enterprise version).
7. County will have all infrastructure prepared prior to project delivery.
8. No Metadata will be updated.
9. County UAT will be specifically scheduled to ensure project schedule is maintained.

Training Assumptions

1. Training will be provided for County employees who have the skills to use ArcGIS Pro for general editing purposes such as creating a project, database navigation, connecting a database, and setting map options for labels and symbology.
2. County recognizes that Pro-West recommends the Esri introductory training course for working with parcel fabric in ArcGIS Pro and that the trainees have the basic knowledge of what a parcel fabric is prior to the custom training course.
3. The County will provide:
 - a. Computers/laptops and peripherals for each student
 - b. Internet access to connect with the Pro-West trainer

- i. A test invitation will be set up prior to the first day of training to ensure all attendees are able to connect via Microsoft Teams
- c. Software (installed and tested by the County prior to training)
 - i. ArcGIS Pro Standard or Advanced licensing
 - ii. Version should be 3.x or most current – See Deployment for further details
 - iii. Tested on each computer to ensure capabilities to open and edit
 - 1. Editing access to the published editing service via Portal on the County server along with permissions set for each student
 - iv. Each student should test accessing the editing service prior to training to ensure capabilities exist

Project Management

Project Team

Pro-West & Associates Project Manager: Kendis Scharenbroich
Phone: 320-207-6861
Email: kscharen@prowestgis.com

County Project Manager: TBD

Project Schedule: Specific timeline will be discussed prior to project kickoff

Delivery

Documentation to be delivered to the County:

1. Custom Editing and Maintenance Training manual
2. UAT use cases
3. UAT acceptance documentation

The data will be delivered to the County in the following manner:

1. File geodatabase containing a dataset in which is the upgraded parcel data
 - a. Deployed by Pro-West into the County's enterprise geodatabase
 - b. Published as an editing service by Pro-West

Services to be delivered to the County:

1. Deployment of the file geodatabase deliverable into the County's enterprise system
2. Publishing of the editing service
3. Custom Editing and Maintenance Training
4. Parcel data publishing script upgrade
5. UAT assistance

Project Risks & Mitigation

1. Enterprise geodatabase needs to be upgraded or configured.
 - a. Mitigation: thoroughly discuss Enterprise and ArcGIS Pro versions during project kick off to determine what version of ArcGIS Pro has the functionality needed to support Client workflows. Should it be determined that an Enterprise upgrade is needed to support Fabric migration, Pro-West assumes the Client will complete the upgrade and use their Block Support Hours with Pro-West for support during that transition (~2-3 hours of Pro-West time).
2. Agreed upon testing schedule is delayed.
 - a. Mitigation: County and Pro-West to communicate as soon as delay is known. Team will determine updated schedule, which would need to be extended.
3. Esri software or browser changes occur that affect a deliverable.
 - a. Mitigation: Pro-West will notify the County as soon as a technology change has affected a deliverable and will provide recommendations for new options. Additional costs may apply, or the schedule may be modified to accommodate a new option.
4. Pre-Fabric Training checklist is not completed prior to Pro-West training.
 - a. Mitigation: Pro-West will provide a training checklist for the Client during project kick off. Timeline of the checklist will be determined as the project continues. If the checklist items are not completed by the Client based on the agreed upon timeframe, Pro-West will reschedule the training.
5. Client staff are not skilled in ArcGIS Pro to complete the Custom Editing and Maintenance Training.
 - a. Mitigation: Pro-West shall notify Client POC regarding skill level and discuss a training plan to bring the skill level up to a point where the Custom Training can proceed.
6. Additional Client staff sit in during Pro-West parcel fabric training.
 - a. Mitigation: Client shall notify Pro-West 2 weeks prior to training if additional staff will be attending the training. Additional staff are more than welcome to attend, however, the focus of the training will be for those maintaining the parcels and the instructor will focus on their needs first, as well as getting through the standard training content. If there is time remaining, Pro-West can address questions from other staff attending.
7. Stakeholders are not identified at the beginning of the project.
 - a. Mitigation: Client and Pro-West will identify stakeholders at the project kick off. If changes in stakeholders occur, they will be communicated to the stakeholders immediately to eliminate and/or minimize timeline and budget changes.
8. Stakeholders change throughout the project.
 - a. Mitigation: Maintain the same project stakeholders throughout the project. If stakeholders do change, it is the Client's responsibility to communicate the purpose of the project to the new stakeholder or for Pro-West to communicate changes to the Client. If the project changes due to a change in stakeholders, additional charges may apply and the timeline may be affected.

9. Changes to parcel schema needs or workflows occur after the project has begun.
 - a. Mitigation: The Client stakeholders and Pro-West will define data schema and workflows during the data assessment phase and changes will be agreed upon by both parties prior to migration beginning. Changes to schema/workflow needs that occur after migration has started, may result in additional costs or changes to the timeline.

10. Feedback. Various tasks will be completed throughout the project. It is the responsibility of project stakeholders to ensure that feedback is provided per the timelines agreed upon.
 - a. Mitigation: communicate feedback/task delays to project stakeholders immediately. Project budget and/or timelines may be affected by delays.

Estimated Schedule

Pro-West and the Client will work out the specific dates of the schedule during the kick-off meeting to ensure both parties have ample time to complete the work required. Below is an estimated schedule of the parcel fabric upgrade milestones to be used during that kick-off call for planning purposes.

Milestone	Tasks	Timeframe
Project Kick-Off	Identify all team staff involved Identify data sources needed	12/1/2024
Development Environment	<ul style="list-style-type: none"> Set up testing environment Test all processes, tools, & scripts with pilot township Provide file geodatabase to county for review Provide UAT use cases and acceptance documentation 	2/3/2025 - 5/30/2025
County Test Environment	<ul style="list-style-type: none"> Upgrade countywide data Deploy countywide data, tools & scripts in County Test UAT for editing processes, tools, & scripts 	6/2/2025 - 8/15/2025
County Testing	<ul style="list-style-type: none"> Assist County UAT Sign off on testing 	8/18/2025 - 8/29/2025
County Stop Editing (all tasks listed are from County Production environment)	<ul style="list-style-type: none"> County to finalize all edits and save data County to Reconcile & Post all versions County to delete all versions County to generate a full backup of enterprise geodatabase County to deliver .bak file to Pro-West and Great Arc 	8/1/2025 - COUNTY MUST BE COMPLETED BY: 8/29/2025 (STOP EDITING)
County Production Environment	<ul style="list-style-type: none"> Upgrade final countywide data Deploy countywide data, tools, & scripts in County Production UAT for editing processes, tools, & scripts 	9/1/2025 - 10/17/2025
County Production Environment Testing	<ul style="list-style-type: none"> Assist County UAT Sign off on testing 	10/20/2025- 10/31/2025
Esri Training	County signs up and attends the recommended Esri Pro/Parcel Fabric Training(s)	Completed by 10/31/2025
Pro-West Parcel Fabric Training(s)	Client takes custom trainings with Pro-West <ul style="list-style-type: none"> Training 1 – 5 days Training 2 – Up to 3 additional days 	11/3/2025 11/21/2025

***RISK: If the above timelines are not met, they will be adjusted, including the “stop editing” date.**

Cost

\$323,234.73

If the scope, objectives, or timeline change significantly before the project is completed, Pro-West & County will discuss any necessary modifications to the agreed-upon fee or to the scope, objectives, or timeline of the project.

Please note:

- Esri training fees for recommended classes are NOT included in this cost estimate.
- Enterprise upgrades completed are NOT included in this cost estimate.

Project Completion

The project will be completed when the Parcel fabric is deployed in the Enterprise and training has been completed.

Upon project close, the parcels will be managed and maintained by the County.

Section 7: Logistics

Work in support of this contract will primarily be done at Great Arc's office and our subcontractors' offices. However, Great Arc can be available to come on site to County facilities as required for meetings, software installation support, or other needs, as directed by the County. We anticipate all of this to occur during normal business hours.

In most cases, we will not need any space or equipment from Cook County except for what Cook would need to provide for on-site meetings or what might be required for any on-site training.

Section 8: Costs

<u>Category</u>	<u>Cost</u>	<u>FY</u>
Upgrade, Data Migration and Enhancements	\$932,130.12	'24,'25,'26
<u>Maintenance</u>		
PINMAP 2.0/3.0 Maintenance – Year 1 (11/1/2024-10/31/2025)	\$146,333.32	<u>2024,2025</u>
PINMAP 3.0 Maintenance – Year 2 (11/1/2025-10/31/2026)	\$141,184.34	<u>2025,2026</u>
PINMAP 3.0 Maintenance – Year 3 (11/1/2026-10/31/2027)	\$134,513.94	<u>2026,2027</u>
<u>Sub-Total Maintenance Cost</u>	\$422,031.60	
<u>Travel Costs</u>		
The only Travel Costs are for Pro-West Training which are included in their service costs, including travel, accommodations and meals.	\$0	
<u>Grand Total Cost</u>	\$1,354,161.72	

Optional/Additional Maintenance Year (not included in project Grand Total Cost)		
PINMAP 3.0 Maintenance – Year 4 (11/1/2027-10/31/2028)	\$141,184.34	<u>2027,2028</u>
PINMAP 3.0 Maintenance – Year 5 (11/1/2028-10/31/2029)	\$134,513.94	<u>2028,2029</u>

Notes:

1. Tasks in the tables above that are split between Fiscal Year budgets are highlighted in gray.
2. The Upgrade, Data Migration and Enhancements portion of the project will be invoiced Fixed Fee, with individual tasks and/or sprints invoiced by % complete per month. The Maintenance portion of the project will be invoiced Hourly per resource, per month.
3. Maintenance costs are only an estimate based on actual spending from past projects.
4. We provide a detailed Microsoft Project Plan that describes resources, costs, schedules, and grouping of tasks.

Screenshots of the Cost Spreadsheet follow this page.



COOK COUNTY GOVERNMENT
Office of the Chief Procurement Officer
PINMAP 3 Upgrade, Enhancement & Maintenance - PRICING PROPOSAL (Revision 5 - 08/29/24)

Instructions

Proposers are required to provide input in blue cells only.
 All costs associated with the implementation of the proposed solution must be itemized and submitted in excel format. **PDF files will not be accepted.**
 If cost is not applicable, Proposer must enter zero (\$0).
 Cook County will assume zero (\$0) cost on blank cells.
 When the pricing proposal is complete, Proposer must validate the final Total Cost columns.
 Insert "not applicable" in the notes column if a given line item does not apply.
 It is the responsibility of Proposers to contact the Office of the Chief Procurement Officer in a timely manner if formula/cell errors are found.

Company Name Great Arc Technologies, Inc.

ID	Phased Costs	Manually enter the expected cost associated with Phase 1, 2 or other	Year One Totals
1.001	Project Cost - Maintenance for Years 1, 2, 3 (11/1/24-10/31/27)	\$ 422,031.60	
1.002	Project Cost - Upgrades, Enhancements, and Data Migration	\$ 932,130.12	
1.003	Project Cost - Other Phases	\$ -	
1.004	*Total Project Cost	\$ 1,354,161.72	1,354,161.72
1.005		\$ -	-
1.006		\$ -	-
1.007		\$ -	-

Cook County makes no guarantee that the services or products identified in this Task Order will be required. Proposers must return this pricing proposal in excel format.

*If these cells are not identical, there may be an issue with your calculations. Please validate your totals and communicate any potential errors to the Procurement Office.



COOK COUNTY GOVERNMENT
Office of the Chief Procurement Officer
PINMAP 3 Upgrade, Enhancement & Maintenance - PRICING PROPOSAL (Revision 3 - 07/01/24)

Instructions

Proposers are required to provide input in blue cells only.
All costs associated with the implementation of the proposed solution must be itemized and submitted in excel format. PDF files will not be accepted.
If cost is not applicable, Proposer must enter zero (\$0).
Cook County will assume zero (\$0) cost on blank cells.
When the pricing proposal is complete, Proposer must validate the final Total Cost columns.
Insert "not applicable" in the notes column if a given line item does not apply.
It is the responsibility of Proposers to contact the Office of the Chief Procurement Officer in a timely manner if formula/cell errors are found.

Use the notes column to provide additional details

Support and Maintenance and Cloud-Based Costs		Company Name	Description	Unit of Measure	Cost per Unit	Quantity	Total Cost	Year One Costs	Notes
2.001							\$ -	\$ -	
2.002			Maintain PINMAP 2.0/3.0 including: code bug fixes, analysis, design, development, documentation, testing, issue and status reporting, project management	1	\$ -	1	\$ -	\$ 146,333.32	Note the following: 1)This dollar amount is an estimate only based on Hourly rates provided times estimated hours for each resource, times a conservative percent multiplier - actual hours spent by each resource is what will be invoiced; 2) See the Professional Services tab in this spreadsheet for rates; 3)This estimate is for the time period 11/7/2024 through 10/31/2025.
2.003			Maintain PINMAP 3.0 including: code bug fixes, analysis, design, development, documentation, testing, issue and status reporting, project management	1	\$ -	1	\$ -	\$ 141,184.34	Note the following: 1)This dollar amount is an estimate only based on Hourly rates provided times estimated hours for each resource, times a conservative percent multiplier - actual hours spent by each resource is what will be invoiced; 2) See the Professional Services tab in this spreadsheet for rates; 3)This estimate is for the time period 11/7/2025 through 10/31/2026.
2.004			Maintain PINMAP 3.0 including: code bug fixes, analysis, design, development, documentation, testing, issue and status reporting, project management	1	\$ -	1	\$ -	\$ 134,513.94	Note the following: 1)This dollar amount is an estimate only based on Hourly rates provided times estimated hours for each resource, times a conservative percent multiplier - actual hours spent by each resource is what will be invoiced; 2) See the Professional Services tab in this spreadsheet for rates; 3)This estimate is for the time period 11/7/2026 through 10/31/2027.
			PINMAP 3.0 Maintenance - Year 3						
			PINMAP 3.0 Maintenance - Year 4 (Optional - not included in total project cost)					\$ 143,321.68	Note the following: 1)This dollar amount is an estimate only based on Hourly rates provided times estimated hours for each resource, times a conservative percent multiplier - actual hours spent by each resource is what will be invoiced; 2) See the Professional Services tab in this spreadsheet for rates; 3)This estimate is for the time period 11/7/2027 through 10/31/2028; 4) This is OPTIONAL and NOT included in the project cost estimate.
2.005							\$ -	\$ -	
2.006							\$ -	\$ -	
2.007							\$ -	\$ -	
			Support and Maintenance Annual Total				\$ -	\$ -	

Software Costs

Software Functionality (what does it do? include any integration/migration tools)		Module Name	Unit of Measure	Cost per Unit	Quantity	Total Cost	Year One Costs	Notes
2.008						\$ -	\$ -	
2.009						\$ -	\$ -	
2.010						\$ -	\$ -	
2.011						\$ -	\$ -	
2.012						\$ -	\$ -	
2.013						\$ -	\$ -	
2.014						\$ -	\$ -	
			Software Total			\$ -	\$ -	

Hardware Costs

Item (servers, PCs, laptops, scanning peripherals, wiring, WIFI Access Points, etc.)		Specifications	Unit of Measure	Cost per Unit	Quantity	Total Cost	Year One Costs	Notes	
2.015						\$ -	\$ -		
2.016						\$ -	\$ -		
2.017						\$ -	\$ -		
2.018						\$ -	\$ -		
2.019						\$ -	\$ -		
2.020						\$ -	\$ -		
2.021						\$ -	\$ -		
			Hardware Total			\$ -	\$ -		
			Enter hardware costs for specialty hardware that can only be purchased via						

2	HW and SW Project Cost - 3 Year Total	\$ -
2.1	HW and SW Project Cost - Year One Total	\$ -

Cook County makes no guarantee that the services or products identified in this Task Order will be required. Proposers must return this pricing proposal in excel format.



COOK COUNTY GOVERNMENT
 Office of the Chief Procurement Officer
PINMAP 3 Upgrade, Enhancement & Maintenance - PRICING PROPOSAL (Revision 3 - 07/01/24)

Instructions

- Proposers are required to provide input in blue cells only.
- All costs associated with the implementation of the proposed solution must be itemized and submitted in Excel format.
- If cost is not applicable, Proposer must enter zero (\$0).
- Cook County will assume zero (\$0) cost on blank cells.
- When the pricing proposal is complete, Proposer must validate the final Total Cost columns.
- List one deliverable per line. The first line is an examples of how these lines should be populated.
- List deliverables sequentially.
- The Sum of all deliverable costs should equal the total cost for the project.
- Note that all deliverables must have a set of acceptance criteria that must be approved by Cook County as stated in the RFP.
- If one deliverable will be completed in two parts, list each part on separate lines.

		Company Name			
	Deliverable	Insert Task Order Project Sections	Phase (1, 2 or other)	Cost Per Deliverable	Cost for Phase
X.XXX					
X.XXX					
	<u>Maintenance Deliverables (Years 1, 2, 3) Include:</u>				
		This portion of project Time & Materials invoiced actual hours spent by resource per month			Cost for Maintenance
4.001	application support of a technical and advisory nature				
4.002	minor fixes, database maintenance and oversight,				
4.003	troubleshooting user issues, and other related tasks				
4.004	For years 2025, 2026, 2027 (11/1/2024-10/31/2027)				
4.005					
4.006	Total Cost PINMAP Maintenance			\$ 422,031.60	Cost for Upgrade/Enhancements
4.007	<u>Upgrades, Enhancements, and Data Migration Deliverables Include:</u>				
4.008	Project plan, Project Management, Meetings,				
4.009	requirements analysis, application/feature design,				
4.010	database and code updates from Esri 10.8.2 to 11.1				
4.011	ArctMap tool updates to ArcGIS Pro 3, PINMAP updates and enhancements, data and parcel fabric migration,				
4.012	Updated documentation, testing, training,				
4.013	deployment to Cook environments				
4.014					
4.015					
4.016	Total Upgrades, Enhancements, and Data Migration Cost			\$ 992,130.12	Cost for Other Phases
4.017					
4.018					
4.019					
4.020					
4.021					
4.022					
4.023					
4.024					
4.025					
4.026					
4.027					
4.028					
4.029					
4.030					
4.031					
4.032					
				\$	
4				\$	Grand Total Costs
4.1				\$	1,354,161.72
			Total Project Cost	\$	

EXHIBIT 2

Cook County Information Technology Special Conditions

Exhibit 2
Cook County Information Technology Special Conditions (ITSCs)

1. DEFINITIONS FOR special conditions

1.1. **“Biometric Information”** has the same meaning as “biometric information” defined in the Illinois Biometric Privacy Act, 740 ILCS 14/10.

1.2. **“Business Associate Agreement”** or **“BAA”** means an agreement that meets the requirements of 45 C.F.R. 164.504(e).

1.3. **“Cardholder Data”** means data that meets the definition of “Cardholder Data” in the most recent version of the Payment Card Industry’s Data Security Standard.

1.4. **“Contractor”** has the same meaning as either “Contractor” and “Consultant” as such terms are defined, and may be interchangeably used in the County’s Professional Services Agreement, or “Contractor” as defined in the County’s Instruction to Bidders and General Conditions, if either such document forms the basis of this Agreement. “Contractor” includes any individuals that are employees, representatives, subcontractors or agents of Contractor.

1.5. **“Contractor Confidential Information”** means all non-public proprietary information of Contractor that is marked confidential, restricted, proprietary, or with a similar designation; provided that Contractor Confidential Information excludes County Data or information that may be subject to disclosure under Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. or other law.

1.6. **“County”** has the same meaning as the term “County” in the Cook County Procurement Code, located at Chapter 34, Article IV in the Cook County Code of Ordinances as amended.

1.7. **“County Confidential Information”** means all non-public proprietary information of County, including Personally Identifiable Information and any information that is exempt from public disclosure under the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. or under the Cook County Code of Ordinances.

1.8. **“County Data”** means all data, including County Confidential Information, provided by the County to Contractor, or otherwise encountered by Contractor for purposes relating to this Agreement, including related metadata.

1.9. **“County Intellectual Property”** or **“County IP”** means all Intellectual Property owned or licensed by the County, including Developed IP.

1.10. **“Criminal Justice Information”** means data that meets the definition of “Criminal Justice Information” in the most recent version of FBI’s CJIS Security Policy and also data that meets the definition of “Criminal History Record Information” at 28 C.F.R. 20.

1.11. **“Data Protection Laws”** means laws, regulations, industry self-regulatory standards, and codes of practice in connection with the processing of Personally Identifiable Information, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320(d) et seq.), the Health Information Technology for Economic and Clinical Health Act of 2009 (42 U.S.C. § 17921 et seq.), FBI CJIS Security Policy, the Illinois Biometric Privacy Act, 740 ILCS 14/1, et seq., the Illinois Personal Information Protection Act, 815 ILCS 530/1, et seq., and the Payment Card Industry Data Security Standard..

1.12. **"Data Breach"** means (a) the loss or misuse (by any means) of any County Confidential Information; (b) the unauthorized or unlawful access, use, or disclosure of any County Confidential Information; or (c) any other act or omission that compromises the security, confidentiality, integrity or availability of any County Confidential Information.

1.13. **"Deliverable"** has the same meaning as "Deliverable" as defined in the County's Professional Services Agreement or as defined in the County's Instruction to Bidders and General Conditions, if either such document forms the basis of this Agreement.

1.14. **"Developed Intellectual Property"** or **"Developed IP"** means Intellectual Property conceived, developed, authored or reduced to practice in the course of or in connection with the provision of the Services, including, but not limited to: (a) modifications to, or enhancements (derivative works) of, the County IP; (b) Developed Software; and (c) modifications to or enhancements (derivative works) of, Third Party Intellectual Property to the extent not owned by the licensor of the Third Party IP under the terms of the applicable license.

1.15. **"Intellectual Property"** or **"IP"** means any inventions, discoveries, designs, processes, software, documentation, reports, and works of authorship, drawings, specifications, formulae, databases, algorithms, models, methods, techniques, technical data, discoveries, know how, trade secrets, and other technical proprietary information and all patents, copyrights, mask works, trademarks, service marks, trade names, service names, industrial designs, brand names, brand marks, trade dress rights, Internet domain name registrations, Internet web sites and corporate names, and applications for the registration or recordation of any of the foregoing.

1.16. **"Malware"** means any hidden files, automatically replicating, transmitting or activating computer program, virus (or other harmful or malicious computer program) or any equipment-limiting, Software-limiting or Services-limiting function (including, but not limited to, any key, node lock, time-out or similar function), whether implemented by electronic or other means.

1.17. **"Open Source Materials"** means any Software that: (a) contains, or is derived in any manner (in whole or in part) from, any Software that is distributed as free Software, open source Software, shareware (e.g., Linux), or similar licensing or distribution models; and (b) is subject to any agreement with terms requiring that such Software be (i) disclosed or distributed in source code or object code form, (ii) licensed for the purpose of making derivative works, and/or (iii) redistributable. Open Source Materials includes without limitation "open source" code (as defined by the Open Source Initiative) and "free" code (as defined by the Free Software Foundation).

1.18. **"Personally Identifiable Information"** means personal data or information that relates to a specific, identifiable, individual person, including County personnel. For the avoidance of doubt, Personally Identifiable Information includes the following: (a) any government-issued identification numbers (e.g., Social Security, driver's license, passport); (b) any financial account information, including account numbers, credit card numbers, debit card numbers, and other Cardholder Data; (c) Criminal Justice Information; (d) Protected Health Information; (e) Biometric Information; (f) passwords or other access-related information associated with any user account; and (g) any other personal data defined as personally identifiable information under the breach notification laws of the fifty states.

1.19. **"Protected Health Information"** or **"PHI"** has the same meaning as the term "Protected Health Information" in 45 C.F.R. 160.103.

1.20. **"Services"** has the same meaning as "Services" as defined in Article 3 of the County's Professional Services Agreement or "Deliverables" as defined in the County's Instruction to Bidders and

General Conditions, if either such document forms the basis of this Agreement.

1.21. “**Software**” means computer programs, whether in source code or object code form (including any and all software implementation of algorithms, models and methodologies), databases and compilations (including any and all data and collections of data), and all documentation (including user manuals and training materials) related to the foregoing.

2. SERVICES AND DELIVERABLES

2.1. **Approved Facilities.** Contractor will perform Services and host County Data only within the continental United States and only from locations owned, leased or otherwise used by Contractor and its Subcontractors.

2.2. **Required Consents for Assets in Use and Third-Party Contracts as of the Effective Date.** For this section, “Assets” mean equipment, Software, Intellectual Property and other assets used in providing the Services and “Required Consent” means the consent required to secure any rights of use of or access to any of County-provided or third-party Assets that are required by Contractor to perform the Services. Contractor is responsible for obtaining all Required Consents relating to this Agreement. The County will cooperate with Contractor and provide Contractor such assistance in this regard as the Contractor may reasonably request.

2.3. **Resources Necessary for Services.** Except as set forth in this Agreement, Contractor will provide and is financially responsible for all equipment, Software, and other resources needed to perform the Services in accordance with the Agreement.

3. LEGAL COMPLIANCE

3.1. **Public Records Laws.** Contractor will comply with all laws governing public records located at 50 ILCS 205/1 et seq. and at 44 Ill. Admin. Code 4500.10 et seq. Specifically, and without limitation, Contractor must: (a) store County Data in such a way that each record is individually accessible for the length of the County’s scheduled retention; (b) retain a minimum of two total copies of all County Data according to industry best practices for geographic redundancy, such as NIST Special Publication 800-34 as revised; (c) store and access County Data in a manner allowing individual records to maintain their relationships with one another; (d) capture relevant structural, descriptive, and administrative metadata to County Data at the time a record is created or enters the control of Contractor.

3.2. **Data Protection Laws.** Contractor will comply with all applicable Data Protection Laws, including those that would be applicable to the Contractor if it, rather than the County, were the owner or data controller of any County Data in its possession or under its control in connection with the Services.

3.3. **Export Laws.** Contractor will comply with all laws governing the export of intellectual property, including, but not limited to the Export Administration Regulations, 15 CFR 730, et seq.

3.4. **Protected Health Information.** If Contractor will have access to Personal Health Information in connection with the performance of the Services, Contractor must enter a Business Associate Agreement in a form provided by the County. See Attachment X, Business Associate Agreement.

3.5. **Criminal Justice Information.** If Contractor will have access to Criminal Justice Information in connection with the performance of the Services, Contractor must execute an FBI CJIS Security Policy Addendum or any other required agreements in a form provided by the County. See Attachment X, CJIS Security Policy Addendum.

3.6. Biometric Information. If Contractor will have access to Biometric Information in connection with the performance of the Services, Contractor must properly secure such information in compliance with the Illinois Biometric Information Privacy Act, 740 ILCS 14/1, et seq., including maintaining a retention schedule and destruction guidelines.

3.7. Cardholder Data. If Contractor will have access to Cardholder Data in connection with the performance of the Services, no less than annually, Contractor must tender to County a current attestation of compliance signed by a Qualified Security Assessor certified by the Payment Card Industry.

4. WARRANTIES

4.1. Contractor Materials and Third Party_IP. Contractor represents and warrants that it owns, or is authorized to use, all Contractor IP, and Contractor-provided third-party IP.

4.2. Developed Software. Contractor represents and warrants that all developed software will be free from material errors in operation and performance, will comply with the applicable documentation and specifications in all material respects, for twelve (12) months after the installation, testing and acceptance of such developed software by the County. Any repairs made to developed software pursuant to this Section will receive a new twelve (12) month warranty period in accordance with the terms of this Section. Time spent on any repairs, investigations, data review, or other related issues will be invoiced hourly, time & materials, as part of the integral Maintenance portion of this contract.

4.3. Open Source_Materials. Contractor represents and warrants that all open source materials (OSM) included in Deliverables or Software are obtained from a trusted distributor. Unless otherwise specified in this Agreement, Contractor must maintain OSM support, including required patching and security updates, which will be provided promptly after release. The Contractor must not use any materials that allow users to modify or incorporate open source code into larger programs on the condition that the software containing the source code is publicly distributed without restrictions, commonly known as “copyleft.”

4.4. Access to County Data. Contractor represents and warrants that Contractor has not and will not prevent, or reasonably fail to allow, for any reason including without limitation late payment or otherwise, the County’s access to and retrieval of County Data.

4.5. Malware. Contractor represents and warrants that it has not and will not introduce or cause to be introduced Malware in any County IT environment at any time. If Contractor discovers that Malware has been introduced into Software, Contractor must, at no additional charge, (a) immediately undertake to remove such Malware (b) notify the County in writing within one (1) business day, and (c) use reasonable efforts to correct and repair any damage to County Data or Software and otherwise assist the County in mitigating such damage and restoring any affected Service, Software or equipment.

4.6. Resale of Equipment and Software. If Contractor resells to the County any equipment or Software that Contractor purchased from a Third Party, Contractor, to the extent it is legally able to do so, must pass through any such third-party warranties to the County and reasonably cooperate in enforcing them. Such warranty pass-through will not relieve Contractor from its warranty obligations set forth in this Section.

4.7. Data Security. Contractor represents and warrants that (a) it will not permit any unauthorized access to or cause any loss or damage to County Data or County IP; (b) it will comply with all County security policies in place during the term of this Agreement including those that will not conflict with our required use of third party software to fulfil our contractual obligations, and (c) it will not use any

system that is dependent on software or hardware that no longer have appropriate security updates available, except that both parties acknowledge that Esri software currently in use by the County may be no longer supported during the term of this contract.

5. INTELLECTUAL PROPERTY

5.1. County Intellectual Property. The County retains all right, title and interest in and to all County IP. Contractor will not be permitted to use any of the County IP for the benefit of any entities other than the County. Upon expiration or termination of this Agreement, Contractor must cease all use of County IP and must return to the County all County IP.

5.2. Developed Intellectual Property. Contractor hereby irrevocably and unconditionally assigns, transfers and conveys to the County without further consideration all of its right, title and interest in such Developed IP, which assignment will be effective as of the creation of such works without need for any further documentation or action on the part of the Parties. Contractor agrees to perform any actions as may reasonably be necessary, or as the County may reasonably request, to perfect the County's ownership of any such Developed IP.

5.3. Residual Knowledge. Nothing contained in this Agreement will restrict either Party from the use of any ideas, concepts, know-how, or techniques relating to the Services which either Party, individually or jointly, develops or discloses under this Agreement, provided that in doing so (a) such information is solely retained in the unaided memory of the Parties employees performing or using such Services, (b) the Party does not breach its respective obligations under Section 6 relating to confidentiality and non-disclosure, and (c) does not infringe the Intellectual Property rights of the other or Third Parties who have licensed or provided materials to the other. Except for the license rights contained under Section 5, neither this Agreement nor any disclosure made hereunder grants any license to either Party under any Intellectual Property rights of the other.

5.4. Software Licenses. This Agreement contains all terms and conditions relating to all licenses in Contractor-Provided Software and Contractor IP. Except as explicitly set forth elsewhere in this Agreement, all licenses that Contractor grants in Contractor-Provided Software include: (a) the right of use by Third Party Contractors for the benefit of the County, (b) the right to make backup copies, and (c) the right to reasonably approve the procedures by which Contractor may audit the use of license entitlements.

6. COUNTY DATA AND CONFIDENTIALITY

6.1. Property of County. All County Data is the sole property of the County. Contractor must not use County Data for any purpose other than that of performing the Services under this Agreement. Without the County's express written consent, no County Data, or any part thereof, may be disclosed, assigned, destroyed, altered, withheld, or otherwise restricted by Contractor or commercially exploited by or on behalf of Contractor.

6.2. Acknowledgment of Importance of County Data. Contractor acknowledges the importance of County Data and that the County may suffer irreparable harm or loss in the event of such information being disclosed or used otherwise than in accordance with this Agreement.

6.3. Data Recovery. Upon the County's request Contractor must promptly return all requested County Data to the County or its designee in such a format that the County may reasonably request. Contractor must provide County with adequate bandwidth and other resources to remove County Data from Contractor servers. Contractor must also provide sufficient information requested by the County about the format and structure of the County Data to enable such data to be used in substantially the manner used by

Contractor. Also upon County's request, in lieu of return or in addition to return, Contractor must destroy County Data, sanitize any media upon which County Data resides in accordance to NIST Special Publication 800-88 as revised; and upon County request, Contractor must provide County with a certificate of destruction in compliance with NIST Special Publication 800-88.

6.4. Disclosure Required by Law, Regulation or Court Order. In the event that Contractor is required to disclose County Data in accordance with a requirement or request by operation of Law, regulation or court order, Contractor will, except to the extent prohibited by law: (a) advise the County thereof prior to disclosure; (b) take such steps to limit the extent of the disclosure to the extent lawful; (c) afford the County a reasonable opportunity to intervene in the proceedings; and (d) comply with the County's requests as to the manner and terms of any such disclosure.

6.5. Data Integrity and Loss of County Confidential Information. Data integrity requires that data are complete, consistent, and accurate. As appropriate Contractor must implement and maintain strong, industry standard measures, such as encryption, cryptographic key systems, digital signatures, and firewalls, to maintain accuracy of County Data. Without limiting any rights and responsibilities under Section 7 of these IT Special Conditions, in the event of any disclosure, inaccuracy, or loss of, or inability to account for, any County Confidential Information, Contractor must promptly, at its own expense: (a) notify the County in writing within one (1) business day; (b) take such actions as may be necessary or reasonably requested by the County to minimize the violation; and (c) cooperate in all reasonable respects with the County to minimize any damage resulting from the violation.

6.6. Contractor Confidential Information. County must use at least the same degree of care to prevent disclosing Contractor Confidential Information to Third Parties as County exercises to avoid unauthorized disclosure, publication or dissemination of its County Confidential Information of like character.

7. DATA SECURITY AND PRIVACY

7.1. General Requirement of Confidentiality and Security. Contractor is obligated to maintain the confidentiality and security of all County Confidential Information in connection with the performance of the Services. Without limiting Contractor's other obligations under this Agreement, Contractor must implement and/or use network management and maintenance applications and tools, appropriate fraud prevention and detection and encryption technologies to protect the aforementioned; provided that Contractor must, at a minimum, encrypt all Personally Identifiable Information in-transit and at-rest. Contractor must perform all Services using security technologies and techniques in accordance with industry-leading practices and the County's security policies, procedures and other requirements made available to Contractor in writing.

7.2. Security. Contractor must establish and maintain reasonable and sufficient physical, technical and procedural safeguards to preserve the security and confidentiality of County Confidential Information and to protect same against unauthorized or unlawful disclosure, access or processing, loss, destruction or damage. The safeguards must provide a level and scope of security that is not less than the level and scope required under (a) the County Policies as updated; (b) Federal Information Processing Standard 200; (c) then-current NIST 800-series standard and successors thereto; or (d) an equivalent, generally accepted, industry-standard security standards series.

7.3. Contractor Personnel. Contractor will oblige its personnel to comply with applicable Data Protection Laws and to undertake only to collect, process or use any County Data necessary to perform the Services and not to make the aforementioned available to any Third Parties except as specifically authorized hereunder. Contractor must ensure that, prior to performing any Services or accessing any County Data or

other County Confidential Information, all Contractor personnel who may have access to the aforementioned must have executed agreements concerning access protection and data/software security consistent with this Agreement.

7.4. Information Access. Contractor may not attempt to or permit access to any County Confidential Information by any unauthorized individual or entity. Contractor must provide its personnel only such access as is minimally necessary for such persons/entities to perform the tasks and functions for which they are responsible. Contractor will, upon request from the County, provide the County with an updated list of those personnel having access to County Data and the level of such access.

7.5. Encryption Requirement. Contractor must encrypt all County Confidential Information. Contractor must encrypt the aforementioned in motion, at rest and in use in a manner that, at a minimum, adheres to NIST SP 800-111, NIST SP 800-52, NIST SP 800-77 and NIST SP 800-113 encryption standards. Contractor must not deviate from this encryption requirement without the advance, written approval of the County's Information Security Office.

7.6. Updates. Contractor must provide to County, the timely application of any upgrades to software required for Services that are available to third parties. Software upgrades must include, but not be limited to, new version releases and operating system patching, as well as bug fixes.

7.7. Contractor as a Data Processor. Contractor understands and acknowledges that, to the extent that performance of its obligations hereunder involves or necessitates the processing of Personally Identifiable Information, it will act only on instructions and directions from the County.

7.8. Data Subject Right of Access and Rectification. If the County is required to provide or rectify information regarding an individual's Personally Identifiable Information, Contractor will reasonably cooperate with the County to the full extent necessary to comply with Data Protection Laws. If a request by a data subject is made directly to Contractor, Contractor will notify the County of such request as soon as reasonably practicable.

7.9. Data Minimization. Contractor must implement procedures to minimize the collection of Personally Identifiable Information.

7.10. Any County data that Contractor informs County will be processed or stored by the Contractor or Subcontractors in a location that is not SOC 2 compliant must have any Personally Identifiable Information or County Confidential Information removed from the County data by the County before the County delivers the data to the Contractor or Subcontractors.

8. DATA BREACH

8.1. Notice to County. Contractor must provide the County with written notice of any Data Breach promptly following, and no later than one (1) business day following, the discovery or suspicion of the occurrence of a Data Breach. Such notice must summarize in reasonable detail the nature of the County Data that may have been exposed, and, if applicable, any persons whose Personally Identifiable Information may have been affected or exposed by such Data Breach. Contractor must not make any public announcements relating to such Data Breach without the County's prior written approval.

8.2. Data Breach Responsibilities. Upon discovery of an actual or reasonably suspected loss, or unauthorized use, access, or disclosure, of County Data, Contractor must promptly provide details regarding the incident, its mitigation efforts, and its corrective action to prevent a future similar incident. Contractor must fully cooperate with County, and is solely responsible for: (a) investigating and resolving any data

privacy or security issue; (b) providing County with a root cause analysis of the breach, (c) notifying any affected persons (solely at County's direction) and governmental regulators, as applicable; and (d) recovering affected data or information, to the extent possible, and (e) provide County with a corrective action plan acceptable to County.

8.3. Notice to Impacted Parties. County has the sole right to determine (a) whether notice of the Data Breach is to be provided to any individuals, regulators, law enforcement agencies, consumer reporting agencies or others as required by law or regulation, or otherwise in County's discretion; and (b) the contents of such notice, whether any type of remediation may be offered to affected persons, and the nature and extent of any such remediation.

8.4. Costs. In the event of a Data Breach attributable to an act or omission of Contractor, as part of such remediation, Contractor must pay all cost and expense of County's compliance with any of County's notification obligations, as well as the cost of credit monitoring services for affected individuals.

9. AUDIT RIGHTS

9.1. Service Organization Control (SOC 2), Type II Audits. Contractor must, at least once annually and at its sole cost and expense provide to the County and its auditors, either: a SOC 2, Type II report, or equivalent, for all locations at which the County Data that includes any data that is not publicly available (such as Personally Identifiable Information or County Confidential Information) is processed or stored; or, where the County Data being processed or stored is comprised of only publicly available data and does not include any Personally Identifiable Information or County Confidential Information, a simple statement from the Contractor or Subcontractor describing the security of the processing or storage location. Contractor must promptly make available to the County these statements or the results of any reviews or audits conducted by Contractor (including internal and external auditors), including SOC-2 audits, relating to Contractor's and its Subcontractors' operating practices and procedures to the extent relevant to the Services or any of Contractor's obligations under the Agreement.

9.2. Subcontractor Agreements. Contractor must ensure that all agreements with its Subcontractors performing Services under this Agreement contain terms and conditions consistent with the County's audit rights.

10. EXIT ASSISTANCE

10.1. Removal of Contractor Materials. Contractor is responsible, at its own expense, for de-installation and removal from the County facilities any equipment owned or leased by Contractor, that is not being transferred to the County under the Agreement, subject to the County's reasonable procedures and in a manner that minimizes the adverse impact on the County.

11. MISCELLANEOUS

11.1. Survival. Sections 1 (Definitions for Special Conditions), 5 (Intellectual Property), 9 (Data Breach), and 10 (Audit Rights) will survive the expiration or termination of this Agreement for a period of five (5) years (and Sections 6 (County Data and Confidentiality) and 13 (Miscellaneous) will survive for a period of ten [10] years) from the later of (a) the expiration or termination of this Agreement (including any Exit Assistance Period), or (b) the return or destruction of County Confidential Information as required by this Agreement.

11.2. No Limitation. The rights and obligations set forth in these IT special conditions exhibit do not limit the rights and obligations set forth in any Articles of the Professional Services Agreement. For

the avoidance of doubt, the use of County in the PSA or GC will expressly include County and vice versa.

11.3. No Click-Wrap or Incorporated Terms. The County is not bound by any content on the Contractor's website, in any click-wrap or other similar document.

12. EPIDEMIC DISRUPTION

12.1. Epidemic Disruption. County may suspend Services under any Statement of Work on 2 business days' written notice in case of Epidemic Disruption (as defined below). Each party's deadlines and obligations related to performance, receipt, or support of Services will then be delayed by a period equal to the duration of such suspension, provided suspension will not delay Customer's obligations to make payments already due pursuant to the terms of this Agreement. County may end such suspension at any time on 5 business days' notice, provided Contractor may by prompt written notice delay such Services' restart date by up to 2 weeks if earlier return of staff imposes unreasonable burdens on Contractor. If performance pursuant to a Statement of Work is suspended due to Epidemic Disruption for more than 40 business days out of any 90-day period, either party may terminate such Statement of Work for convenience on 10 days' prior written notice, provided that if Provider issues such termination notice and County ends the suspension before the notice period ends, the Statement of Work will not terminate. For the avoidance of doubt: (a) termination pursuant to the preceding sentence does not release Provider from its obligations pursuant to PSA Section __ (*Transition Assistance*); and (b) nothing in this PSA Section __ limits either party's rights set forth in PSA Section __ (*Force Majeure*), including without limitation either party's right to suspend Services as a result of epidemics. ("Epidemic Disruption" occurs when County reasonably concludes (i) that risks related to an epidemic make performance, receipt, or support of Services unreasonably dangerous for either party's employees or for third parties or (ii) that government shelter-in-place orders or other government measures addressing an epidemic make performance, receipt, or support of Services unduly expensive or otherwise impractical.)

EXHIBIT 3

Minority and Women Owned Business Enterprise Commitment



September 10, 2024

TONI PRECKWINKLE

PRESIDENT

**Cook County Board
of Commissioners**

TARA STAMPS

1st District

VACANT

2nd District

BILL LOWRY

3rd District

STANLEY MOORE

4th District

MONICA GORDON

5th District

DONNA MILLER

6th District

ALMA E. ANAYA

7th District

ANTHONY QUEZADA

8th District

MAGGIE TREVOR

9th District

BRIDGET GAINER

10th District

JOHN P. DALEY

11th District

BRIDGET DEGNEN

12th District

JOSINA MORITA

13th District

SCOTT R. BRITTON

14th District

KEVIN B. MORRISON

15th District

FRANK AGUILAR

16th District

SEAN M. MORRISON

17th District

Mr. Raffi Sarrafian
Chief Procurement Officer
161 N. Clark, Suite 2300
Chicago, IL 60601

Re: Contract No. 2410-06132
Software Application for Property Tax Parcel Management – PINMAP 3.0
Bureau of Technology
Contract Term: Three (3) Years – Plus Two(2) One(1) Year Renewal Options
Estimated Contract Value: \$1,354,161.72
Participation Goal: 0% MBE and 0% WBE
Sole Source – Professional Services

Dear Mr. Sarrafian:

<u>MBE/WBE</u>	<u>Status</u>	<u>Certifying Agency</u>	<u>Commitment (Direct)</u>
Urban GIS, Inc.	MBE(AA)	City of Chicago	<u>12%</u>
Total			12%

Sincerely,

Jeanetta Cardine
Contract Compliance Deputy Director

JC/ab/vl

cc: Jovan Johnson, OCPO
Todd Schuble, Bureau of Technology

MBE/WBE UTILIZATION PLAN - FORM 1

BIDDER/PROPOSER HEREBY STATES that all MBE/WBE firms included in this Plan are certified MBEs/WBEs by at least one of the entities listed in the General Conditions – Section 19.

I. BIDDER/PROPOSER MBE/WBE STATUS: (check the appropriate line)

- Bidder/Proposer is a certified MBE or WBE firm. (If so, attach copy of current Letter of Certification)
- Bidder/Proposer is a Joint Venture and one or more Joint Venture partners are certified MBEs or WBEs. (If so, attach copies of Letter(s) of Certification, a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the Joint Venture and a completed Joint Venture Affidavit – available online at www.cookcountyil.gov/contractcompliance)
- Bidder/Proposer is not a certified MBE or WBE firm, nor a Joint Venture with MBE/WBE partners, but will utilize MBE and WBE firms either directly or indirectly in the performance of the Contract. (If so, complete Sections II below and the Letter(s) of Intent – Form 2).

II. **Direct Participation of MBE/WBE Firms** **Indirect Participation of MBE/WBE Firms**

NOTE: Where goals have not been achieved through direct participation, Bidder/Proposer shall include documentation outlining efforts to achieve Direct Participation at the time of Bid/Proposal submission. Indirect Participation will only be considered after all efforts to achieve Direct Participation have been exhausted. Only after written documentation of Good Faith Efforts is received will Indirect Participation be considered.

MBEs/WBEs that will perform as subcontractors/suppliers/consultants include the following:

MBE/WBE Firm: Urban GIS, Inc.
 Address: 171 N. Aberdeen, Chicago, IL 60607
 E-mail: ks@urbangis.com
 Contact Person: Keith Searles Phone: 312-525-8400
 Dollar Amount Participation: \$ 163,883.00 (Fixed Fee and T&M, Not to Exceed)
 Percent Amount of Participation: 0% Required, 12% Proposed %
 *Letter of Intent attached? Yes X No _____
 *Current Letter of Certification attached? Yes _____ No _____

MBE/WBE Firm: _____
 Address: _____
 E-mail: _____
 Contact Person: _____ Phone: _____
 Dollar Amount Participation: \$ _____
 Percent Amount of Participation: _____ %
 *Letter of Intent attached? Yes _____ No _____
 *Current Letter of Certification attached? Yes _____ No _____

Attach additional sheets as needed.

*** Letter(s) of Intent and current Letters of Certification must be submitted at the time of bid.**

MBE/WBE LETTER OF INTENT - FORM 2

M/WBE Firm: Urban GIS, Inc.

Certifying Agency: City of Chicago MBE

Contact Person: Keith Searles

Certification Expiration Date: 12/15/2025

Address: 171 N. Aberdeen

Ethnicity: African American

City/State: Chicago, IL Zip: 60607

Bid/Proposal/Contract #: 2410-06132

Phone: 312-525-8400 Fax: _____

FEIN #: 51-0637535

Email: ks@urbangis.com

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the goods or services of this contract to another firm?

No Yes - Please attach explanation. Proposed Subcontractor(s): _____

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract: (If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

Project Management, some Documentation and Testing, and Related Services

Indicate the **Dollar Amount**, **Percentage**, and the **Terms of Payment** for the above-described Commodities/ Services:

Fixed Fee and Time and Materials combined, up to \$163,883.00 maximum, 12% Participation Proposed, 15 days after payment to Prime

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement for the above work, conditioned upon (1) the Bidder/Proposer's receipt of a signed contract from the County of Cook; (2) Undersigned Subcontractor remaining compliant with all relevant credentials, codes, ordinances and statutes required by Contractor, Cook County, and the State to participate as a MBE/WBE firm for the above work. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Services Supply and Fee/Cost were completed.

Keith A. Searles
Signature (M/WBE)

[Signature]
Signature (Prime Bidder/Proposer)

Keith A. Searles
Print Name

Michael Scanlon
Print Name

Urban GIS, Inc.
Firm Name

Great Arc Technologies, Inc.
Firm Name

09/04/2024
Date

09/04/2024
Date

Subscribed and sworn before me
this 4th day of September, 2024

Subscribed and sworn before me
this 4th day of September, 2024

Notary Public: [Signature]
Sophia J Grant

Notary Public: [Signature]
Suzanne Amelie Pizarro

NOTARY PUBLIC SEAL
DeKalb County, GEORGIA
My Commission Expires 03/26/2027



PETITION FOR PARTIAL OR FULL WAIVER – FORM 3

Bidder/Proposer: Great Arc Technologies, Inc.

Contract No./Title: 2410-06132

A. BIDDER/PROPOSER HEREBY REQUESTS:

N/A: This contract has a 0% required MBE/WBE Participation Goal

- | | |
|--|---|
| <input type="checkbox"/> FULL MBE WAIVER | <input type="checkbox"/> PARTIAL MBE WAIVER |
| <input type="checkbox"/> FULL WBE WAIVER | <input type="checkbox"/> PARTIAL WBE WAIVER |
| <input type="checkbox"/> FULL DBE WAIVER | <input type="checkbox"/> PARTIAL DBE WAIVER |

B. REASON FOR PARTIAL/FULL WAIVER REQUEST:

Bidder/Proposer shall check each item applicable to its overall reason for a waiver request. Additionally, supporting documentation shall be submitted with this request.

- (1) Lack of sufficient qualified MBEs and/or WBEs capable of providing the goods or services required by the contract.
- (2) The specifications and necessary requirements for performing the contract make it impossible or economically infeasible to divide the contract to enable the contractor to utilize MBEs and/or WBEs in accordance with the applicable participation.
- (3) Price(s) quoted by potential MBEs and/or WBEs are above competitive levels and increase cost of doing business and would make acceptance of such MBE and/or WBE bid economically impracticable, taking into consideration the percentage of total contract price represented by such MBE and/or WBE bid.
- (4) There are other relevant factors making it impossible or economically infeasible to utilize MBE and/or WBE firms.

GOOD FAITH EFFORT TRANSPARENCY REPORT

N/A: This contract has a 0% required MBE/WBE Participation Goal

C. GOOD FAITH EFFORTS TO OBTAIN PARTICIPATION (attach sheets as necessary as Schedule 1)
Bidder/Proposer shall explain and detail the following Good Faith Efforts undertaken to meet Cook County's contract specific goals.

1. Please attach to this form a detailed list of any and all PCEs, stating the PCE certification (MBE and/or WBE as defined by the Cook County Municipal Code) and with whom from the contacted PCEs the Bidder/Proposer engaged, contacted, and/or communicated with in the County's Market Place;

Timelines:

- a. When the Bidder/Proposer knew of the bid;
 - b. When the Bidder/Proposer contacted the PCE(s);
 - c. When the Bidder/Proposer formulated its bid and utilization plan;
and
 - d. When was the bid request due date.
2. The number of timely attempts to contact PCEs providing the type of supplies, equipment, goods, and/or services required for the Procurement, including but not limited to;
 - a. Dates of each contact attempt for each contacted PCE;
 - b. Whom, if anyone, the Bidder/Proposer communicated and/or corresponded (including written, virtual, digital, electronic, and other feasible methods of communication);
 - c. The number of unsuccessful attempts to communicate or correspond with PCEs; and
 - d. Attach copies of all solicitations to contacted PCEs.
 3. How the Bidder/Proposer proposed to divide the procurement requirements into small tasks and/or quantities into economically feasible units to promote PCE participation.
 4. Whether and to what degree the requesting party will endeavor to maximize indirect participation.
 5. Detailed explanation of use, if any, of the Office of Contract and Compliance services and staff.
 6. Detailed explanation of timely notification and usage of services and assistance provided by community, minority, and/or women business organizations.
 7. Attach any other documentation relative to Good Faith Efforts in complying with MBE and WBE participation.

GOOD FAITH EFFORT TRANSPARENCY REPORT

By signing below, I affirm under penalty of perjury the information provided in the Petition for Full or Partial Waiver/Good Faith Effort Transparency Report is truthful, accurate, and complete, to the best of my knowledge and capacity. I agree any finding of false, fraudulent, and/or otherwise misleading information will automatically disqualify the request for a waiver and Cook County's Office of Contract Compliance reserves the right to pursue additional actions and/or remedies against the requesting Bidder/Proposer.



President

09/04/2024

Signature and Title of Bidder/Proposer

Title

Date



CITY OF CHICAGO

DEPARTMENT OF PROCUREMENT SERVICES

NOV 1 - 2020

Keith A. Searles
Urban GIS, Inc.
171 N. Aberdeen Street Suite 400
Chicago, IL 60607

Dear Mr. Searles:

We are pleased to inform you that **Urban GIS, Inc.** is recertified as a **Minority-Owned Business Enterprise ("MBE")** by the City of Chicago ("City"). This **MBE** certification is valid until **10/15/2025**; however, your firm's certification must be revalidated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. Therefore, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification during the five year period stated above, you must file an **annual No-Change Affidavit**. Your firm's annual No-Change Affidavit is due by **10/15/2021, 10/15/2022, 10/15/2023 and 10/15/2024**. Please remember, you have an affirmative duty to file your No-Change Affidavit 60 days prior to the date of expiration. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

Your firm's five year certification will expire on **10/15/2025**. You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **8/15/2025**.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as an **MBE** if you fail to:

Ono

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification **within 10 days** of such change; or
- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the **City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).**

Be advised that if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining a contract with the City by falsely representing the individual or entity, or the individual or entity assisted is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months, or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code(s):

541330 – Engineering Services

541370 – Geographic Information System (GIS) Base Mapping Services

541511 – Computer Programming Services, Custom

Your firm's participation on City contracts will be credited only toward **MBE** goals in your area(s) specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority, Women-Owned Business Enterprise, Veteran-Owned Business Enterprise and Business Enterprise Owned or Operated by People with Disabilities (MBE/WBE/VBE/BEPD) Program.

Sincerely,



Shannon E. Andrews
Chief Procurement Officer

SEA/ab



Cook County MBE/WBE Non-Construction Certification Reciprocal Affidavit

Firm Name Urban GIS, Inc.
 Address 171 N. Aberdeen Street, Suite 400 City Chicago
 County Cook State Illinois Zip 60607
 Phone (312) 525-8400 Email ks@urbangis.com

I Keith A. Searles CEO
(Authorized Representative) (Print Title)

of Urban GIS, Inc. do hereby affirm:
(Name of Firm)

- 1) Urban GIS, Inc. is a Minority and/or Women Business Enterprise currently certified by the City of Chicago as: Black- [] Hispanic- [] Asian- [] Woman-owned business.
(Name of Firm)
- 2) With respect to Urban GIS, Inc., the personal net worth of the qualifying (51%) individual(s) does not exceed \$2,767,082.23, excluding the individual's ownership interest in the M/WBE firm and the equity of the owner's primary residence, and otherwise meets the requirements of Chapter 34, Article IV of the Cook County Procurement Code. (As per Section 34-263 of the Cook County Procurement Code, an individual's personal net worth includes only his or her own Share of assets held jointly or as community/marital property with the individual's spouse.)
- 3) The average annual gross receipts of Urban GIS, Inc. as derived from tax filings over the five most recent years, does not exceed the Small Business Size Standards published by the U.S. Small Business Administration found in Title 13, Code of Federal Regulations, Part 121. (<http://www.sba.gov/content/small-business-size-standards>)

Upon penalty of perjury, I Keith A. Searles affirm that, to the best of my knowledge and belief, the information herein is true and accurate.
(Authorized Representative)

Signature Keith A. Searles Title CEO Date 9/10/2024

Subscribed and sworn to before me this 10th day of September, 2024
(Month) (Year)

Sonita J Gantt
(Notary's Signature)

Notary's Seal

Sonita J Gantt
NOTARY PUBLIC
DeKalb County, GEORGIA
My Commission Expires 03/26/2027

My Commission Expires March 26, 2027

I. POLICY AND GOALS

- A. It is the policy of the County of Cook to prevent discrimination in the award of or participation in County Contracts and to eliminate arbitrary barriers for participation in such Contracts by local businesses certified as a Minority Business Enterprise (MBE) and Women-owned Business Enterprise (WBE) as both prime and sub-contractors. In furtherance of this policy, the Cook County Board of Commissioners has adopted a Minority- and Women-owned Business Enterprise Ordinance (the "Ordinance") which establishes annual goals for MBE and WBE participation as outlined below:

Contract Type	Goals	
	MBE	WBE
Goods and Services	25%	10%
Construction	24%	10%
Professional Services	35% Overall	

- B. **The County shall set contract-specific goals, based on the availability of MBEs and WBEs that are certified to provide commodities or services specified in this solicitation document. The MBE/WBE participation goals for this Agreement is (0%).** A Bid, Quotation, or Proposal shall be rejected if the County determines that it fails to comply with this General Condition in any way, including but not limited to: (i) failing to state an enforceable commitment to achieve for this contract the identified MBE/WBE Contract goals; or (ii) failing to include a Petition for Reduction/Waiver, which states that the goals for MBE/WBE participation are not attainable despite the Bidder or Proposer Good Faith Efforts, and explains why. If a Bid, Quotation, or Proposal is rejected, then a new Bid, Quotation, or Proposal may be solicited if the public interest is served thereby.
- C. To the extent that a Bid, Quotation, or Proposal includes a Petition for Reduction/Waiver that is approved by the Office of Contract Compliance, the Contract specific MBE and WBE participation goals may be achieved by the proposed Bidder or Proposer's status as an MBE or WBE; by the Bidder or Proposer's enforceable joint-venture agreement with one or more MBEs and/or WBEs; by the Bidder or Proposer entering into one or more enforceable subcontracting agreements with one or more MBE and WBE; by the Bidder or Proposer establishing and carrying out an enforceable mentor/protégé agreement with one or more MBE and WBE; by the Bidder or Proposer actively engaging the Indirect Participation of one or more MBE and WBE in other aspects of its business; or by any combination of the foregoing, so long as the Utilization Plan evidences a commitment to meet the MBE and WBE Contract goals set forth in (B) above, as approved by the Office of Contract Compliance.
- D. A single Person, as defined in the Procurement Code, may not be utilized as both an MBE and a WBE on the same Contract, whether as a Consultant, Subcontractor or supplier.
- E. Unless specifically waived in the Bid or Proposal Documents, this Exhibit; the Ordinance; and the policies and procedures promulgated thereunder shall govern. If there is a conflict

between this Exhibit and the Ordinance or the policies and procedures, the Ordinance shall control.

- F. A Consultant's failure to carry out its commitment regarding MBE and WBE participation in the course of the Contract's performance may constitute a material breach of the Contract. If such breach is not appropriately cured, it may result in withholding of payments under the Contract, contractual penalties, disqualification and any other remedy provided for in Division 4 of the Procurement Code at law or in equity.

II. REQUIRED BID OR PROPOSAL SUBMITTALS

A Bidder or Proposer shall document its commitment to meeting the Contract specific MBE and WBE participation goals by submitting a Utilization Plan with the Bid or Proposal. The Utilization Plan shall include (1) one or more Letter(s) of Intent from the relevant MBE and WBE firms; and (2) current Letters of Certification as an MBE or WBE. Alternatively, the Bidder or Proposer shall submit (1) a written Petition for Reduction/Waiver with the Bid, Quotation or Proposal, which documents its preceding Good Faith Efforts and an explanation of its inability to meet the goals for MBE and WBE participation. The Utilization Plan shall be submitted at the time that the bid or proposal is due. **Failure to include a Utilization Plan will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.**

A. MBE/WBE Utilization Plan

Each Bid or Proposal shall include a complete Utilization Plan, as set forth on Form 1 of the M/WBE Compliance Forms. The Utilization Plan shall include the name(s), mailing address, email address, and telephone number of the principal contact person of the relevant MBE and WBE firms. If the Bidder or Proposer submits a Bid or Proposal, and any of their subconsultants, suppliers or consultants, are certified MBE or WBE firms, they shall be identified as an MBE or WBE within the Utilization Plan.

1. Letter(s) of Intent

Except as set forth below, a Bid or Proposal shall include, as part of the Utilization Plan, one or more Letter(s) of Intent, as set forth on Form 2 of the M/WBE Compliance Forms, executed by each MBE and WBE and the Bidder or Proposer. The Letter(s) of Intent will be used to confirm that each MBE and WBE shall perform work as a Subcontractor, supplier, joint venture, or consultant on the Contract. Each Letter of Intent shall indicate whether and the degree to which the MBE or WBE will provide goods or services directly or indirectly during the term of the Contract. The box for direct participation shall be marked if the proposed MBE or WBE will provide goods or services directly related to the scope of the Contract. The box for Indirect participation shall be marked if the proposed MBE or WBE will not be directly involved in the Contract but will be utilized by the Bidder or Proposer for other services not related to the Contract. Indirect Participation shall not be counted toward the participation goal. Each Letter of Intent shall accurately detail the work to be performed by the relevant MBE or WBE firm, the agreed dollar amount, the percentage of work, and the terms of payment.

Failure to include Letter(s) of Intent will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.

All Bids and Proposals must conform to the commitments made in the corresponding Letter(s) of Intent, as may be amended through change orders.

The Contract Compliance Director may at any time request supplemental information regarding Letter(s) of Intent, and such information shall be furnished if the corresponding Bid or Proposal is to be deemed responsive.

2. Letter(s) of Certification

Only current Letter(s) of Certification from one of the following entities may be accepted as proof of certification for MBE/WBE status, provided that Cook County's requirements for certification are met:

- County of Cook
- City of Chicago

Persons that are currently certified by the City of Chicago in any area other than Construction/Public Works shall also complete and submit a MBE/WBE Reciprocal Certification Affidavit along with a current letter of certification from the City of Chicago. This Affidavit form can be downloaded from www.cookcountyil.gov/contractcompliance.

The Contract Compliance Director may reject the certification of any MBE or WBE on the ground that it does not meet the requirements of the Ordinance, or the policies and rules promulgated thereunder.

3. Joint Venture Affidavit

In the event a Bid or Proposal achieves MBE and/or WBE participation through a Joint Venture, the Bid or Proposal shall include the required Joint Venture Affidavit, which can be downloaded from www.cookcountyil.gov/contractcompliance. The Joint Venture Affidavit shall be submitted with the Bid or Proposal, along with current Letter(s) of Certification.

B. Petition for Reduction/Waiver

In the event a Bid or Proposal does not meet the Contract specific goals for MBE and WBE participation, the Bid or Proposal shall include a Petition for Reduction/Waiver, as set forth on Form 3. The Petition for Reduction/Waiver shall be supported by sufficient evidence and documentation to demonstrate the Bidder or Proposer's Good Faith Efforts in attempting to achieve the applicable MBE and WBE goals, and its inability to do so despite its Good Faith Efforts.

Failure to include Petition for Reduction/Waiver will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.

III. REDUCTION/WAIVER OF MBE/WBE GOALS

A. Granting or Denying a Reduction/Waiver Request.

1. The adequacy of the Good Faith Efforts to utilize MBE and WBE firms in a Bid or Proposal will be evaluated by the CCD under such conditions as are set forth in the Ordinance, the policies and rules promulgated thereunder, and in the “Petition for Reduction/Waiver of MBE/WBE Participation Goals” – Form 3 of the M/WBE Compliance Forms.
2. With respect to a Petition for Reduction/Waiver, the sufficiency or insufficiency of a Bidder or Proposer’s Good Faith Efforts shall be evaluated by the CCD as of the date upon which the corresponding Bid or Proposal was due.
3. The Contract Compliance Director or his or her duly authorized Waiver Committee may grant or deny the Petition for Reduction/Waiver based upon factors including but not limited to: (a) whether sufficient qualified MBE and WBE firms are unavailable despite good faith efforts on the part of the Bidder or Proposer; (b) the degree to which specifications and the reasonable and necessary requirements for performing the Contract make it impossible or economically infeasible to divide the Contract into sufficiently small tasks or quantities so as to enable the Bidder or Proposer to utilize MBE and WBE firms in accordance with the applicable goals; (c) the degree to which the prices or prices required by any potential MBE or WBE are more than 10% above competitive levels; and (d) such other factors as are determined relevant by the Contract Compliance Director or the duly authorized Waiver Committee.
4. If the Contract Compliance Director or the duly authorized Waiver Committee determines that the Bidder or Proposer has not demonstrated sufficient Good Faith Efforts to meet the applicable MBE and WBE goals, the Contract Compliance Director or the duly authorized Waiver Committee may deny a Petition for Reduction/Waiver, declare the Bid or Proposal non-responsive, and recommend rejection of the Bid, Quotation, or Proposal.

IV. CHANGES IN CONSULTANT'S UTILIZATION PLAN

- A. A Consultant, during its performance of the Contract, may not change the original MBE or WBE commitments specified in the relevant Utilization Plan, including but not limited to, terminating a MBE or WBE Contract, reducing the scope of the work to be performed by a MBE/WBE, or decreasing the price to a MBE/WBE, except as otherwise provided by the Ordinance and according to the policies and procedures promulgated thereunder.

- B. Where a Person listed under the Contract was previously considered to be a MBE or WBE but is later found not to be, or work is found not to be creditable toward the MBE or WBE goals as stated in the Utilization Plan, the Consultant shall seek to discharge the disqualified enterprise, upon proper written notification to the Contract Compliance Director, and make every effort to identify and engage a qualified MBE or WBE as its replacement. Failure to obtain an MBE or WBE replacement within 30 business days of the Contract Compliance Director's written approval of the removal of a purported MBE or WBE may result in the termination of the Contract or the imposition of such remedy authorized by the Ordinance, unless a written Petition for Reduction/Waiver is granted allowing the Consultant to award the work to a Person that is not certified as an MBE or WBE.

V. NON-COMPLIANCE

If the CCD determines that the Consultant has failed to comply with its contractual commitments or any portion of the Ordinance, the policies and procedures promulgated thereunder, or this Exhibit, the Contract Compliance Director shall notify the Consultant of such determination and may take any and all appropriate actions as set forth in the Ordinance or the policies and procedures promulgated thereunder which includes but is not limited to disqualification, penalties, withholding of payments or other remedies in law or equity.

VI. REPORTING/RECORD-KEEPING REQUIREMENTS

The Consultant shall comply with the reporting and record-keeping requirements in the manner and time established by the Ordinance, the policies and procedure promulgated thereunder, and the Contract Compliance Director. Failure to comply with such reporting and record-keeping requirements may result in a declaration of Contract default. Upon award of a Contract, a Consultant shall acquire and utilize all Cook County reporting and record-keeping forms and methods which are made available by the Office of Contract Compliance. MBE and WBE firms shall be required to verify payments made by and received from the prime Consultant.

VII. EQUAL EMPLOYMENT OPPORTUNITY

Compliance with MBE and WBE requirements will not diminish or supplant other legal Equal Employment Opportunity and Civil Rights requirements that relate to Consultant and Subcontractor obligations.

Any questions regarding this section should be directed to:

Contract Compliance Director
Cook County
161 N. Clark Street, Suite 2300
Chicago, Illinois 60601
(312) 603-5502

Contract No. 2410-06132
PINMAP 3.0

EXHIBIT 4

Evidence of Insurance

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/17/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

Table with PRODUCER (USI Ins Svcs LLC Euclid-Prof) and INSURED (Great Arc Technologies, Inc.) information, along with CONTACT NAME (John Abraham) and INSURER(S) AFFORDING COVERAGE (Sentinel Insurance Company Ltd., Trumbull Insurance Company, Certain Underwriters at Lloyds of Londo).

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Main table listing insurance coverages: COMMERCIAL GENERAL LIABILITY, AUTOMOBILE LIABILITY, UMBRELLA LIAB, WORKERS COMPENSATION AND EMPLOYERS' LIABILITY, and Professional Liability. Includes columns for INSR LTR, TYPE OF INSURANCE, POLICY NUMBER, POLICY EFF, POLICY EXP, and LIMITS.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Professional Liability is written on a 'claims made' policy form.

Excess Professional Liability: Insurance Carrier: Gemini Insurance Company (NAIC 10833) Policy Number: VNX001276 (See Attached Descriptions)

CERTIFICATE HOLDER CANCELLATION

Table with CERTIFICATE HOLDER (Cook County - OCPO) and CANCELLATION (SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.)

DESCRIPTIONS (Continued from Page 1)

Effective Dates: 06/29/2024 - 06/29/2025
Limits: \$2,000,000 each claim and aggregate

Network and Privacy Liability (Cyber Liability):

Insurance Carrier: Certain Underwriters at Lloyds London (15792)
Policy Number: ESM0140006633
Effective Dates: 06/29/2024 - 06/29/2025
Limits: \$3,000,000

Business Personal Property / Computers and Media:

Insurance Carrier: Sentinel Insurance Company (11000)
Policy Number: 83SBAVZ1988
Effective Dates: 10/13/2024 - 10/13/2025
Business Personal Property Limit: \$91,700
Computers and Media Limit: \$250,000

The General Liability policy includes an automatic Additional Insured endorsement that provides Additional Insured status to Cook County, only when there is a written contract that requires such status, and only with regard to work performed by or on behalf of the named insured.

The General Liability policy contains a special endorsement with Primary and Noncontributory wording, when required by written contract.

Contract No. 2410-06132
PINMAP 3.0

EXHIBIT 5

Board Authorization



Board of Commissioners of Cook County

118 North Clark Street
Chicago, IL

Legislation Details (With Text)

File #: 24-3909 **Version:** 1 **Name:** Great Arc PinMap 3.0
Type: Contract (Technology) **Status:** Approved
File created: 6/24/2024 **In control:** Technology and Innovation Committee
On agenda: 9/19/2024 **Final action:** 10/24/2024
Title: PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Bureau of Technology

Vendor: Great Arc Technologies, Chicago, Illinois

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

Good(s) or Service(s): Software application for property tax parcel management

Contract Value: \$1,354,161.72

Contract period: 11/1/2024 - 10/31/2027 with two (2) one-year renewal options

Potential Fiscal Year Budget Impact: FY 2024: \$89,871.95, FY 2025: \$988,591.49, FY 2026: \$141,184.34, FY: 2027 \$134,513.94

Accounts: 11249.1009.21120.560225 CEP 28589

Contract Number(s): 2410-06132

Concurrence(s):

The vendor has met the Minority- and Women-owned Business Enterprise Ordinance via: Direct participation.

The Chief Procurement Officer concurs.

TECHNOLOGY: N/A

Summary: The PINMap application is used to create and maintain current tax parcels and/or make future tax parcel edits. It includes parcel editing, parcel map production, parcel attribution, quality control and accuracy of parcels, ease of access to parcel information and integration with the county's geographic information systems (GIS) enterprise software.

PINMap uses a customized workflow manager that integrates the County Clerk's Office and the Assessor's Office. The Assessor receives, reviews and approves recorded plats and tax parcel divisions, which are filed directly with the Assessor's office, for possible integration into the cadastral database and updates the tabular attributes of new cadastral features. The Clerk is responsible for creating and updating the spatial cadastral features, attributing those features and creating tax maps from the cadastral database.

The development and maintenance of the new version of PINMap software will allow Cook County to create and maintain parcels in an efficient manner and will also reduce the labor and workflow costs.

This is a Sole Source Procurement pursuant to Section 34-139 of the Cook County Procurement Code.

Sponsors:

Indexes: F. THOMAS LYNCH, Chief Information Officer, Bureau of Technology

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
10/24/2024	1	Board of Commissioners	approve	Pass
10/23/2024	1	Technology and Innovation Committee		
9/19/2024	1	Board of Commissioners	refer	Pass

PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Bureau of Technology

Vendor: Great Arc Technologies, Chicago, Illinois

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

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Accounts: 11249.1009.21120.560225 CEP 28589

Contract Number(s): 2410-06132

Concurrence(s):

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The Chief Procurement Officer concurs.

TECHNOLOGY: N/A

Summary: The PINMap application is used to create and maintain current tax parcels and/or make future tax parcel edits. It includes parcel editing, parcel map production, parcel attribution, quality control and accuracy of parcels, ease of access to parcel information and integration with the county’s geographic information systems (GIS) enterprise software.

PINMap uses a customized workflow manager that integrates the County Clerk's Office and the Assessor's Office. The Assessor receives, reviews and approves recorded plats and tax parcel divisions, which are filed directly with the Assessor’s office, for possible integration into the cadastral database and updates the tabular attributes of new cadastral features. The Clerk is responsible for creating and updating the spatial cadastral features, attributing those features and creating tax maps from the cadastral database.

The development and maintenance of the new version of PINMap software will allow Cook County to create and maintain parcels in an efficient manner and will also reduce the labor and workflow costs.

This is a Sole Source Procurement pursuant to Section 34-139 of the Cook County Procurement Code.

EXHIBIT 6

Identification of Subcontractor/Supplier/Subconsultant Form

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:	
<input type="checkbox"/>	Disqualification
<input type="checkbox"/>	Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

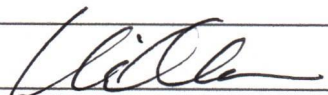
Bid/RFP/RFQ No.: 2410-04030	Date: 8/29/2024
Total Bid or Proposal Amount: \$1,354,161.00	Contract Title: PINMAP V3 Upgrades, Enhancemts, and Maint.
Contractor: Great Arc Technologies, Inc.	Subcontractor/Supplier/ Subconsultant to be added or substitute: Pro-West & Associates, Inc.
Authorized Contact for Contractor: Michael Scanlon, President	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Kendis Scharenbroich
Email Address (Contractor): mscanlon@greatarc.com	Email Address (Subcontractor): kscharen@prowestgis.com
Company Address (Contractor): 401 S. LaSalle St, Suite 702	Company Address (Subcontractor): 8239 State 371 NW
City, State and Zip (Contractor): Chicago, IL 60605	City, State and Zip (Subcontractor): Walker, MN 56484
Telephone and Fax (Contractor): 312-726-4848	Telephone and Fax (Subcontractor): 218-547-3374 x108
Estimated Start and Completion Dates (Contractor): 11/1/2024-10/31/2027	Estimated Start and Completion Dates (Subcontractor): 11/1/2024-10/31/2027

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Code Maint and Enhancmnts: Dsktp Appl; Spat DB/Parc Fabr Migr; Rel Tasks	FF, T&M to \$505,366.84 mx

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Great Arc Technologies, Inc.

Contractor
 Michael Scanlon
 Name
 President
 Title
 Prime Contractor Signature  Date 8/29/2024

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:	
<input type="checkbox"/>	Disqualification
<input type="checkbox"/>	Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2410-04030	Date: 8/29/2024
Total Bid or Proposal Amount: \$1,354,161.00	Contract Title: PINMAP V3 Upgrades, Enhancemts, and Maint.
Contractor: Great Arc Technologies, Inc.	Subcontractor/Supplier/ Subconsultant to be added or substitute: Scarfe Consulting, LLC.
Authorized Contact for Contractor: Michael Scanlon, President	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Danielle Scarfe
Email Address (Contractor): mscanlon@greatarc.com	Email Address (Subcontractor): dscarfe@dsgis.com
Company Address (Contractor): 401 S. LaSalle St, Suite 702	Company Address (Subcontractor): 11917 Parkside Dr
City, State and Zip (Contractor): Chicago, IL 60605	City, State and Zip (Subcontractor): Fairfax, VA 22033
Telephone and Fax (Contractor): 312-726-4848	Telephone and Fax (Subcontractor): 815-970-2418
Estimated Start and Completion Dates (Contractor): 11/1/2024-10/31/2027	Estimated Start and Completion Dates (Subcontractor): 11/1/2024-10/31/2027

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Functional Requirements Analysis, PM Transition & Rel Services	FF, T&M to \$39,584.09 max

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Great Arc Technologies, Inc.

Contractor

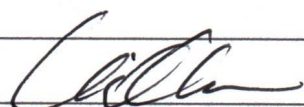
Michael Scanlon

Name

President

Title

Prime Contractor Signature



8/29/2024

Date

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:	
<input type="checkbox"/>	Disqualification
<input type="checkbox"/>	Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

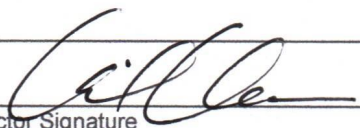
Bid/RFP/RFQ No.: 2410-04030	Date: 8/29/2024
Total Bid or Proposal Amount: \$1,354,161.00	Contract Title: PINMAP V3 Upgrades, Enhancemts, and Maint.
Contractor: Great Arc Technologies, Inc.	Subcontractor/Supplier/ Subconsultant to be added or substitute: Urban GIS, Inc.
Authorized Contact for Contractor: Michael Scanlon, President	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Keith Searles
Email Address (Contractor): mscanlon@greatarc.com	Email Address (Subcontractor): ks@urbangis.com
Company Address (Contractor): 401 S. LaSalle St, Suite 702	Company Address (Subcontractor): 171 N. Aberdeen
City, State and Zip (Contractor): Chicago, IL 60605	City, State and Zip (Subcontractor): Chicago, IL 60607
Telephone and Fax (Contractor): 312-726-4848	Telephone and Fax (Subcontractor): 312-525-8400
Estimated Start and Completion Dates (Contractor): 11/1/2024-10/31/2027	Estimated Start and Completion Dates (Subcontractor): 11/1/2024-10/31/2027

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Project Management, some Documentation and Testing, and Related Services	FF,T&M to \$163,883.00 mx

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Great Arc Technologies, Inc.

Contractor
 Michael Scanlon
 Name
 President
 Title 
 Prime Contractor Signature 8/29/2024
 Date

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:	
<input type="checkbox"/>	Disqualification
<input type="checkbox"/>	Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2410-04030	Date: 8/29/2024
Total Bid or Proposal Amount: \$1,354,161.00	Contract Title: PINMAP V3 Upgrades, Enhancemts, and Maint.
Contractor: Great Arc Technologies, Inc.	Subcontractor/Supplier/ Subconsultant to be added or substitute: Esri, Inc.
Authorized Contact for Contractor: Michael Scanlon, President	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Mark Williams
Email Address (Contractor): mscanlon@greatarc.com	Email Address (Subcontractor): mwilliams@esri.com
Company Address (Contractor): 401 S. LaSalle St, Suite 702	Company Address (Subcontractor): 380 New York Street
City, State and Zip (Contractor): Chicago, IL 60605	City, State and Zip (Subcontractor): Redlands, CA 92373
Telephone and Fax (Contractor): 312-726-4848	Telephone and Fax (Subcontractor): 360-754-4727 x 1-8915
Estimated Start and Completion Dates (Contractor): 11/1/2024-10/31/2027	Estimated Start and Completion Dates (Subcontractor): 11/1/2024-10/31/2027

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Assist w/ Database Rel Tasks, Esri Data & Tech Subject Matter Expertise, and Rel Tasks	T&M to \$37,192.00 max

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Great Arc Technologies, Inc.


Contractor
 Michael Scanlon
 Name
 President
 Title

 Prime Contractor Signature
 8/29/2024
 Date

EXHIBIT 7

Electronic Payables Program (“E-Payables”)

OFFICE OF THE COOK COUNTY COMPTROLLER
ELECTRONIC PAYABLES PROGRAM ("E-PAYABLES")

FOR INFORMATION PURPOSES ONLY

**This document describes the Office of the Cook County Comptroller's Electronic Payables Program ("E-Payables").
If you wish to participate in E-Payables, please contact the Cook County Comptroller's Office, Accounts Payable, 118 N. Clark
Street, Room 500, Chicago, IL 60602.**

DESCRIPTION

To increase payment efficiency and timeliness, we have introduced E-Payables program, a new payment initiative to our accounts payable model. This new initiative utilizes a Visa purchasing card and operates through the Visa payment network. This is County's preferred method of payment and your participation in our Visa purchasing card program will provide mutual benefits both to your organization and ours.

As a vendor, you may experience the following benefits by accepting this new payment type:

- Improved cash flow and accelerated payment
- Reduced paperwork and a more streamlined accounts receivable process
- Elimination of stop payment issues
- Reduced payment delays
- Reduced costs for handling paper checks
- Payments settled directly to your merchant account

There are two options within this initiative:

1. Dedicated Credit Card – "PULL" Settlement

For this option, you will have an assigned dedicated credit card to be used for each payment. You will provide a point of contact within your organization who will keep credit card information on file. Each time a payment is made, you will receive a remittance advice via email detailing the invoices being paid. Each time you receive a remittance advice, you will process payments in the same manner you process credit card transactions today.

2. One-Time Use Credit Card – "SUGA" Settlement

For this option, you will provide a point of contact within your organization who will receive an email notification authorizing you to process payments in the same manner you process credit card transactions today. Each time payment is made, you will receive a remittance advice, via email, detailing the invoices being paid. Also, each time you receive a remittance advice, you will receive a new, unique credit card number. This option is ideal for suppliers who are unable to keep credit card account information on file.

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Contract No. 2410-06132
PINMAP 3.0

EXHIBIT 8

Economic Disclosure Statement

**COOK COUNTY
ECONOMIC DISCLOSURE STATEMENT
AND EXECUTION DOCUMENT
INDEX**

Section	Description	Pages
1	Instructions for Completion of EDS	EDS i - ii
2	Certifications	EDS 1- 2
3	Economic and Other Disclosures, Affidavit of Child Support Obligations, Disclosure of Ownership Interest and Familial Relationship Disclosure Form	EDS 3 – 12
4	Cook County Affidavit for Wage Theft Ordinance	EDS 13-14
5	Contract and EDS Execution Page	EDS 15
6	Cook County Signature Page	EDS 16

SECTION 1
INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT

This Economic Disclosure Statement and Execution Document (“EDS”) is to be completed and executed by every Bidder on a County contract, every Proposer responding to a Request for Proposals, and every Respondent responding to a Request for Qualifications, and others as required by the Chief Procurement Officer. The execution of the EDS shall serve as the execution of a contract awarded by the County. The Chief Procurement Officer reserves the right to request that the Bidder or Proposer, or Respondent provide an updated EDS on an annual basis.

Definitions. Terms used in this EDS and not otherwise defined herein shall have the meanings given to such terms in the Instructions to Bidders, General Conditions, Request for Proposals, Request for Qualifications, as applicable.

Affiliate means a person that directly or indirectly through one or more intermediaries, Controls is Controlled by, or is under common Control with the Person specified.

Applicant means a person who executes this EDS.

Bidder means any person who submits a Bid.

Code means the Code of Ordinances, Cook County, Illinois available on municode.com.

Contract shall include any written document to make Procurements by or on behalf of Cook County.

Contractor or *Contracting Party* means a person that enters into a Contract with the County.

Control means the unfettered authority to directly or indirectly manage governance, administration, work, and all other aspects of a business.

EDS means this complete Economic Disclosure Statement and Execution Document, including all sections listed in the Index and any attachments.

Joint Venture means an association of two or more Persons proposing to perform a for-profit business enterprise. Joint Ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their relationship and respective responsibility for the Contract

Lobby or *lobbying* means to, for compensation, attempt to influence a County official or County employee with respect to any County matter.

Lobbyist means any person who lobbies.

Person or *Persons* means any individual, corporation, partnership, Joint Venture, trust, association, Limited Liability Company, sole proprietorship or other legal entity.

Prohibited Acts means any of the actions or occurrences which form the basis for disqualification under the Code, or under the Certifications hereinafter set forth.

Proposal means a response to an RFP.

Proposer means a person submitting a Proposal.

Response means response to an RFQ.

Respondent means a person responding to an RFQ.

RFP means a Request for Proposals issued pursuant to this Procurement Code.

RFQ means a Request for Qualifications issued to obtain the qualifications of interested parties.

**INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT**

Section 1: Instructions. Section 1 sets forth the instructions for completing and executing this EDS.

Section 2: Certifications. Section 2 sets forth certifications that are required for contracting parties under the Code and other applicable laws. Execution of this EDS constitutes a warranty that all the statements and certifications contained, and all the facts stated, in the Certifications are true, correct and complete as of the date of execution.

Section 3: Economic and Other Disclosures Statement. Section 3 is the County's required Economic and Other Disclosures Statement form. Execution of this EDS constitutes a warranty that all the information provided in the EDS is true, correct and complete as of the date of execution, and binds the Applicant to the warranties, representations, agreements and acknowledgements contained therein.

Required Updates. The Applicant is required to keep all information provided in this EDS current and accurate. In the event of any change in the information provided, including but not limited to any change which would render inaccurate or incomplete any certification or statement made in this EDS, the Applicant shall supplement this EDS up to the time the County takes action, by filing an amended EDS or such other documentation as is required.

Additional Information. The County's Governmental Ethics and Campaign Financing Ordinances impose certain duties and obligations on persons or entities seeking County contracts, work, business, or transactions, and the Applicant is expected to comply fully with these ordinances. For further information please contact the Director of Ethics at (312) 603-4304 (69 W. Washington St. Suite 3040, Chicago, IL 60602) or visit the web-site at cookcountyil.gov/ethics-board-of.

Authorized Signers of Contract and EDS Execution Page. If the Applicant is a corporation, the President and Secretary must execute the EDS. In the event that this EDS is executed by someone other than the President, attach hereto a certified copy of that section of the Corporate By-Laws or other authorization by the Corporation, satisfactory to the County that permits the person to execute EDS for said corporation. If the corporation is not registered in the State of Illinois, a copy of the Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a partnership or joint venture, all partners or joint venturers must execute the EDS, unless one partner or joint venture has been authorized to sign for the partnership or joint venture, in which case, the partnership agreement, resolution or evidence of such authority satisfactory to the Office of the Chief Procurement Officer must be submitted with this Signature Page.

If the Applicant is a member-managed LLC all members must execute the EDS, unless otherwise provided in the operating agreement, resolution or other corporate documents. If the Applicant is a manager-managed LLC, the manager(s) must execute the EDS. The Applicant must attach either a certified copy of the operating agreement, resolution or other authorization, satisfactory to the County, demonstrating such person has the authority to execute the EDS on behalf of the LLC. If the LLC is not registered in the State of Illinois, a copy of a current Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a Sole Proprietorship, the sole proprietor must execute the EDS.

A "Partnership" "Joint Venture" or "Sole Proprietorship" operating under an Assumed Name must be registered with the Illinois county in which it is located, as provided in 805 ILCS 405 (2012), and documentation evidencing registration must be submitted with the EDS.

Effective October 1, 2016 all foreign corporations and LLCs must be registered with the Illinois Secretary of State's Office unless a statutory exemption applies to the applicant. Applicants who are exempt from registering must provide a written statement explaining why they are exempt from registering as a foreign entity with the Illinois Secretary of State's Office.

SECTION 2**CERTIFICATIONS**

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE APPLICANT IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE APPLICANT THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE APPLICANT IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE APPLICANT SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 *et seq.*;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, *et seq.*;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of *nolo contendere* to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in subparagraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20% or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Applicant has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Applicant would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE APPLICANT HEREBY CERTIFIES THAT: *In accordance with 720 ILCS 5/33 E-11, neither the Applicant nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid rotating.*

C. DRUG FREE WORKPLACE ACT

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant will provide a drug free workplace, as required by (30 ILCS 580/3).

D. DELINQUENCY IN PAYMENT OF TAXES

THE APPLICANT HEREBY CERTIFIES THAT: *The Applicant is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-171.*

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 *et seq.*).

F. ILLINOIS HUMAN RIGHTS ACT

THE APPLICANT HEREBY CERTIFIES THAT: *It is in compliance with the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.*

G. INSPECTOR GENERAL (COOK COUNTY CODE, CHAPTER 34, SECTION 34-174 and Section 34-250)

The Applicant has not willfully failed to cooperate in an investigation by the Cook County Independent Inspector General or to report to the Independent Inspector General any and all information concerning conduct which they know to involve corruption, or other criminal activity, by another county employee or official, which concerns his or her office of employment or County related transaction.

The Applicant has reported directly and without any undue delay any suspected or known fraudulent activity in the County's Procurement process to the Office of the Cook County Inspector General.

H. CAMPAIGN CONTRIBUTIONS (COOK COUNTY CODE, CHAPTER 2, SECTION 2-585)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning campaign contributions, which is codified at Chapter 2, Division 2, Subdivision II, Section 585, and can be read in its entirety at www.municode.com.

I. GIFT BAN, (COOK COUNTY CODE, CHAPTER 2, SECTION 2-574)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning receiving and soliciting gifts and favors, which is codified at Chapter 2, Division 2, Subdivision II, Section 574, and can be read in its entirety at www.municode.com.

J. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-160;

Unless expressly waived by the Cook County Board of Commissioners, the Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is annually by the Chief Financial Officer of the County, and shall be posted on the Chief Procurement Officer's website.

The term "Contract" as used in Section 4, I, of this EDS, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for -profit law);
- 2) Community Development Block Grants;
- 3) Cook County Works Department;
- 4) Sheriff's Work Alternative Program; and
- 5) Department of Correction inmates.

SECTION 3

REQUIRED DISCLOSURES

1. DISCLOSURE OF LOBBYIST CONTACTS

List all persons that have made lobbying contacts on your behalf with respect to this contract:

Name	Address
N/A	
_____	_____
_____	_____

2. LOCAL BUSINESS PREFERENCE STATEMENT (CODE, CHAPTER 34, SECTION 34-230)

Local business means a Person, including a foreign corporation authorized to transact business in Illinois, having a bona fide establishment located within the County at which it is transacting business on the date when a Bid is submitted to the County, and which employs the majority of its regular, full-time work force within the County. A Joint Venture shall constitute a Local Business if one or more Persons that qualify as a "Local Business" hold interests totaling over 50 percent in the Joint Venture, even if the Joint Venture does not, at the time of the Bid submittal, have such a bona fide establishment within the County.

a) Is Applicant a "Local Business" as defined above?

Yes: _____ No: _____

b) If yes, list business addresses within Cook County:

401 S. LaSalle Street, Suite 702, Chicago, Illinois 60605

c) Does Applicant employ the majority of its regular full-time workforce within Cook County?

Yes: _____ No: _____

3. THE CHILD SUPPORT ENFORCEMENT ORDINANCE (CODE, CHAPTER 34, SECTION 34-172)

Every Applicant for a County Privilege shall be in full compliance with any child support order before such Applicant is entitled to receive or renew a County Privilege. When delinquent child support exists, the County shall not issue or renew any County Privilege, and may revoke any County Privilege.

All Applicants are required to review the Cook County Affidavit of Child Support Obligations attached to this EDS (EDS-5) and complete the Affidavit, based on the instructions in the Affidavit.

4. REAL ESTATE OWNERSHIP DISCLOSURES.

The Applicant must indicate by checking the appropriate provision below and providing all required information that either:

- a) The following is a complete list of all real estate owned by the Applicant in Cook County:

PERMANENT INDEX NUMBER(S): 11-31-111-004-0000 (Skyles)
14-29-120-012-0000 (Scanlon)

(ATTACH SHEET IF NECESSARY TO LIST ADDITIONAL INDEX NUMBERS)

OR:

- b) The Applicant owns no real estate in Cook County.

5. EXCEPTIONS TO CERTIFICATIONS OR DISCLOSURES.

If the Applicant is unable to certify to any of the Certifications or any other statements contained in this EDS and not explained elsewhere in this EDS, the Applicant must explain below:

N/A

If the letters, "NA", the word "None" or "No Response" appears above, or if the space is left blank, it will be conclusively presumed that the Applicant certified to all Certifications and other statements contained in this EDS.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT

The Cook County Code of Ordinances (§2-610 *et seq.*) requires that any Applicant for any County Action must disclose information concerning ownership interests in the Applicant. This Disclosure of Ownership Interest Statement must be completed with all information current as of the date this Statement is signed. Furthermore, this Statement must be kept current, by filing an amended Statement, until such time as the County Board or County Agency shall take action on the application. The information contained in this Statement will be maintained in a database and made available for public viewing. **County reserves the right to request additional information to verify veracity of information contained in this statement.**

If you are asked to list names, but there are no applicable names to list, you must state NONE. An incomplete Statement will be returned and any action regarding this contract will be delayed. A failure to fully comply with the ordinance may result in the action taken by the County Board or County Agency being voided.

"Applicant" means any Entity or person making an application to the County for any County Action.

"County Action" means any action by a County Agency, a County Department, or the County Board regarding an ordinance or ordinance amendment, a County Board approval, or other County agency approval, with respect to contracts, leases, or sale or purchase of real estate.

"Person" "Entity" or "Legal Entity" means a sole proprietorship, corporation, partnership, association, business trust, estate, two or more persons having a joint or common interest, trustee of a land trust, other commercial or legal entity or any beneficiary or beneficiaries thereof.

This Disclosure of Ownership Interest Statement must be submitted by :

1. An Applicant for County Action and
2. A Person that holds stock or a beneficial interest in the Applicant and is listed on the Applicant's Statement (a "Holder") must file a Statement and complete #1 only under **Ownership Interest Declaration**.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers.

This Statement is being made by the Applicant or Stock/Beneficial Interest Holder

This Statement is an: Original Statement or Amended Statement

Identifying Information:

Name Great Arc Technologies, Inc.

D/B/A: _____ FEIN # Only: 36-4302520

Street Address: 401 S. LaSalle Street, Suite 702

City: Chicago State: IL Zip Code: 60605

Phone No.: 312-726-4848 Fax Number: _____ Email: mscanlon@greatarc.com

Cook County Business Registration Number: _____
(Sole Proprietor, Joint Venture Partnership)

Corporate File Number (if applicable): _____

Form of Legal Entity:

Sole Proprietor Partnership Corporation Trustee of Land Trust

Business Trust Estate Association Joint Venture

Other (describe) _____

Ownership Interest Declaration:

1. List the name(s), address, and percent ownership of each Person having a legal or beneficial interest (including ownership) of more than five percent (5%) in the Applicant/Holder.

Name	Address	Percentage Interest in Applicant/Holder
Michael Scanlon	1541 W. Oakdale Ave, Chicago, IL 60657	50
David Skyles	2073 W. Greenleaf, Chicago, IL 60645	50

2. If the interest of any Person listed in (1) above is held as an agent or agents, or a nominee or nominees, list the name and address of the principal on whose behalf the interest is held.

Name of Agent/Nominee	Name of Principal	Principal's Address
N/A		

3. Is the Applicant constructively controlled by another person or Legal Entity? [] Yes [] No
 If yes, state the name, address and percentage of beneficial interest of such person, and the relationship under which such control is being or may be exercised.

Name	Address	Percentage of Beneficial Interest	Relationship
N/A			

Corporate Officers, Members and Partners Information:

For all corporations, list the names, addresses, and terms for all corporate officers. For all limited liability companies, list the names, addresses for all members. For all partnerships and joint ventures, list the names, addresses, for each partner or joint venture.

Name	Address	Title (specify title of Office, or whether manager or partner/joint venture)	Term of Office
Michael Scanlon	1541 W. Oakdale Ave, Chicago, IL 60657	President	Perpetual
David Skyles	2073 W. Greenleaf, Chicago, IL 60645	Secretary	Perpetual

Declaration (check the applicable box):

- I state under oath that the Applicant has withheld no disclosure as to ownership interest in the Applicant nor reserved any information, data or plan as to the intended use or purpose for which the Applicant seeks County Board or other County Agency action.
- I state under oath that the Holder has withheld no disclosure as to ownership interest nor reserved any information required to be disclosed.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT SIGNATURE PAGE

Michael Scanlon

Name of Authorized Applicant/Holder Representative (please print or type)

Signature

mscanlon@greatarc.com

E-mail address

President

Title

Date

312-726-4848

Phone Number

Subscribed to and sworn before me
this 31st day of July, 2024

My commission expires: 07/18/2026

X

Notary Public Signature

Notary Seal





COOK COUNTY BOARD OF ETHICS
69 W. WASHINGTON STREET, SUITE 3040
CHICAGO, ILLINOIS 60602
312/603-4304 Office 312/603-9988 Fax

FAMILIAL RELATIONSHIP DISCLOSURE PROVISION

Nepotism Disclosure Requirement:

Doing a significant amount of business with the County requires that you disclose to the Board of Ethics the existence of any familial relationships with any County employee or any person holding elective office in the State of Illinois, the County, or in any municipality within the County.

If you are unsure of whether the business you do with the County or a County agency will cross this threshold, err on the side of caution by completing the attached familial disclosure form because, among other potential penalties, any person found guilty of failing to make a required disclosure or knowingly filing a false, misleading, or incomplete disclosure will be prohibited from doing any business with the County for a period of three years.

The person that is doing business with the County must disclose his or her familial relationships. If the person on the County lease or contract or purchasing from or selling to the County is a business entity, then the business entity must disclose the familial relationships of the individuals who are and, during the year prior to doing business with the County, were:

- its board of directors,
its officers,
its employees or independent contractors responsible for the general administration of the entity,
its agents authorized to execute documents on behalf of the entity, and
its employees who directly engage or engaged in doing work with the County on behalf of the entity.

Do not hesitate to contact the Board of Ethics at (312) 603-4304 for assistance in determining the scope of any required familial relationship disclosure.

Additional Definitions:

'Familial relationship' means a person who is a spouse, domestic partner or civil union partner of a County employee or State, County or municipal official, or any person who is related to such an employee or official, whether by blood, marriage or adoption, as a:

- Parent, Child, Brother, Sister, Aunt, Uncle, Niece, Nephew, Grandparent, Grandchild, Father-in-law, Mother-in-law, Son-in-law, Daughter-in-law, Brother-in-law, Sister-in-law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepsister, Halfbrother, Halfsister

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

A. PERSON DOING OR SEEKING TO DO BUSINESS WITH THE COUNTY

Name of Person Doing Business with the County: Great Arc Technologies, Inc.

Address of Person Doing Business with the County: 401 S. LaSalle Street, Suite 702, Chicago, IL 60605

Phone number of Person Doing Business with the County: 312-726-4848

Email address of Person Doing Business with the County: mscanlon@greatarc.com

If Person Doing Business with the County is a Business Entity, provide the name, title and contact information for the individual completing this disclosure on behalf of the Person Doing Business with the County:

Michael Scanlon, President, 401 S. LaSalle Street, Suite 702, Chicago, IL 60605, Phone: 312-726-4848, mscanlon@greatarc.com

B. DESCRIPTION OF BUSINESS WITH THE COUNTY

Append additional pages as needed and for each County lease, contract, purchase or sale sought and/or obtained during the calendar year of this disclosure (or the proceeding calendar year if disclosure is made on January 1), identify:

The lease number, contract number, purchase order number, request for proposal number and/or request for qualification number associated with the business you are doing or seeking to do with the County: 2410-06132

PINMAP Version 3 Upgrades, Enhancements, and Maintenance

The aggregate dollar value of the business you are doing or seeking to do with the County: \$1,354,161.72

The name, title and contact information for the County official(s) or employee(s) involved in negotiating the business you are doing or seeking to do with the County: Jovan Johnson, Lead Contract Negotiator; jovan.johnson@cookcountyil.gov

The name, title and contact information for the County official(s) or employee(s) involved in managing the business you are doing or seeking to do with the County: Todd Schuble; Todd.Schuble@cookcountyil.gov

C. DISCLOSURE OF FAMILIAL RELATIONSHIPS WITH COUNTY EMPLOYEES OR STATE, COUNTY OR MUNICIPAL ELECTED OFFICIALS

Check the box that applies and provide related information where needed

The Person Doing Business with the County **is an individual** and there is **no familial relationship** between this individual and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

The Person Doing Business with the County **is a business entity** and there is **no familial relationship** between any member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity or employees directly engaged in contractual work with the County on behalf of the business entity, and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

- The Person Doing Business with the County **is an individual** and **there is a familial relationship** between this individual and at least one Cook County employee and/or a person or persons holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County. **The familial relationships are as follows:**

Name of Individual Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			

If more space is needed, attach an additional sheet following the above format.

- The Person Doing Business with the County **is a business entity** and **there is a familial relationship** between at least one member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity and/or employees directly engaged in contractual work with the County on behalf of the business entity, on the one hand, and at least one Cook County employee and/or a person holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County, on the other. **The familial relationships are as follows:**

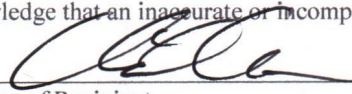
Name of Member of Board of Director for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			

Name of Officer for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			

Name of Person Responsible for the General Administration of the Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			
Name of Agent Authorized to Execute Documents for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			
Name of Employee of Business Entity Directly Engaged in Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
N/A			

If more space is needed, attach an additional sheet following the above format.

VERIFICATION: To the best of my knowledge, the information I have provided on this disclosure form is accurate and complete. I acknowledge that an inaccurate or incomplete disclosure is punishable by law, including but not limited to fines and debarment.


7/29/2024

 Signature of Recipient Date

SUBMIT COMPLETED FORM TO: Cook County Board of Ethics
 69 West Washington Street, Suite 3040, Chicago, Illinois 60602
 Office (312) 603-4304 – Fax (312) 603-9988
 CookCounty.Ethics@cookcountyil.gov

* Spouse, domestic partner, civil union partner or parent, child, sibling, aunt, uncle, niece, nephew, grandparent or grandchild by blood, marriage (i.e. in laws and step relations) or adoption.

SECTION 4

COOK COUNTY AFFIDAVIT FOR WAGE THEFT ORDINANCE

Effective May 1, 2015, every Person, **including Substantial Owners**, seeking a Contract with Cook County must comply with the Cook County Wage Theft Ordinance set forth in Chapter 34, Article IV, Section 179. Any Person/Substantial Owner, who fails to comply with Cook County Wage Theft Ordinance, may request that the Chief Procurement Officer grant a reduction or waiver in accordance with Section 34-179(d).

"Contract" means any written document to make Procurements by or on behalf of Cook County.

"Person" means any individual, corporation, partnership, Joint Venture, trust, association, limited liability company, sole proprietorship or other legal entity.

"Procurement" means obtaining supplies, equipment, goods, or services of any kind.

"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

All Persons/Substantial Owners are required to complete this affidavit and comply with the Cook County Wage Theft Ordinance before any Contract is awarded. Signature of this form constitutes a certification the information provided below is correct and complete, and that the individual(s) signing this form has/have personal knowledge of such information. **County reserves the right to request additional information to verify veracity of information contained in this Affidavit.**

I. Contract Information:

Contract Number: 2410-06132

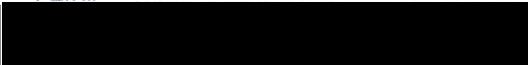
County Using Agency (requesting Procurement): Bureau of Technology

II. Person/Substantial Owner Information:

Person (Corporate Entity Name): Great Arc Technologies, Inc.

Substantial Owner Complete Name: Michael Scanlon

FEIN# 36-4302520



E-mail address: mscanlon@greatarc.com

Street Address: 1541 W. Oakdale Ave

City: Chicago

State: IL

Zip: 60657



III. Compliance with Wage Laws:

Within the past five years has the Person/Substantial Owner, in any judicial or administrative proceeding, been convicted of, entered a plea, made an admission of guilt or liability, or had an administrative finding made for committing a repeated or willful violation of any of the following laws:

- No *Illinois Wage Payment and Collection Act, 820 ILCS 115/1 et seq., YES or NO*
- No *Illinois Minimum Wage Act, 820 ILCS 105/1 et seq., YES or NO*
- No *Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS 65/1 et seq., YES or NO*
- No *Employee Classification Act, 820 ILCS 185/1 et seq., YES or NO*
- No *Fair Labor Standards Act of 1938, 29 U.S.C. 201, et seq., YES or NO*
- No *Any comparable state statute or regulation of any state, which governs the payment of wages YES or NO*

If the Person/Substantial Owner answered "Yes" to any of the questions above, it is ineligible to enter into a Contract with Cook County, but can request a reduction or waiver under **Section IV**.

IV. Request for Waiver or Reduction

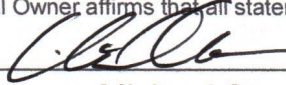
If Person/Substantial Owner answered "Yes" to any of the questions above, it may request a reduction or waiver in accordance with Section 34-179(d), provided that the request for reduction of waiver is made on the basis of one or more of the following actions that have taken place:

- No There has been a bona fide change in ownership or Control of the ineligible Person or Substantial Owner. YES or NO
- No Disciplinary action has been taken against the individual(s) responsible for the acts giving rise to the violation. YES or NO
- No Remedial action has been taken to prevent a recurrence of the acts giving rise to the disqualification or default. YES or NO
- No Other factors that the Person or Substantial Owner believe are relevant. YES or NO

The Person/Substantial Owner must submit documentation to support the basis of its request for a reduction or waiver. The Chief Procurement Officer reserves the right to make additional inquiries and request additional documentation.

V. Affirmation

The Person/Substantial Owner affirms that all statements contained in the Affidavit are true, accurate and complete.

Signature:  Date: 7/31/2024

Name of Person signing (Print): Michael Scanlon Title: President

Subscribed and sworn to before me this 31st day of July, 2024

X 
Notary Public Signature

Notary Seal

Note: The above information is subject to verification prior to the award of the Contract.



SECTION 4

COOK COUNTY AFFIDAVIT FOR WAGE THEFT ORDINANCE

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"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

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I. Contract Information:

Contract Number: 2410-06132

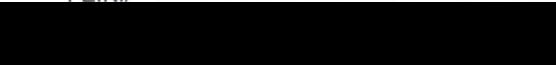
County Using Agency (requesting Procurement): Bureau of Technology

II. Person/Substantial Owner Information:

Person (Corporate Entity Name): Great Arc Technologies, Inc.

Substantial Owner Complete Name: David Skyles

FEIN# 36-4302520



E-mail address: dskyles@greatarc.com

Street Address: 2073 W. Greenleaf

City: Chicago State: IL Zip: 60645



III. Compliance with Wage Laws:

Within the past five years has the Person/Substantial Owner, in any judicial or administrative proceeding, been convicted of, entered a plea, made an admission of guilt or liability, or had an administrative finding made for committing a repeated or willful violation of any of the following laws:

- No *Illinois Wage Payment and Collection Act, 820 ILCS 115/1 et seq., YES or NO*
- No *Illinois Minimum Wage Act, 820 ILCS 105/1 et seq., YES or NO*
- No *Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS 65/1 et seq., YES or NO*
- No *Employee Classification Act, 820 ILCS 185/1 et seq., YES or NO*
- No *Fair Labor Standards Act of 1938, 29 U.S.C. 201, et seq., YES or NO*
- No *Any comparable state statute or regulation of any state, which governs the payment of wages YES or NO*

If the Person/Substantial Owner answered "Yes" to any of the questions above, it is ineligible to enter into a Contract with Cook County, but can request a reduction or waiver under **Section IV**.

IV. Request for Waiver or Reduction


If Person/Substantial Owner answered "Yes" to any of the questions above, it may request a reduction or waiver in accordance with Section 34-179(d), provided that the request for reduction of waiver is made on the basis of one or more of the following actions that have taken place:

- No There has been a bona fide change in ownership or Control of the ineligible Person or Substantial Owner. YES or NO
- No Disciplinary action has been taken against the individual(s) responsible for the acts giving rise to the violation. YES or NO
- No Remedial action has been taken to prevent a recurrence of the acts giving rise to the disqualification or default. YES or NO
- No Other factors that the Person or Substantial Owner believe are relevant. YES or NO

The Person/Substantial Owner must submit documentation to support the basis of its request for a reduction or waiver. The Chief Procurement Officer reserves the right to make additional inquiries and request additional documentation.

V. Affirmation

The Person/Substantial Owner affirms that all statements contained in the Affidavit are true, accurate and complete.

Signature:  Date: 7/31/2024

Name of Person signing (Print): David Skyles Title: Secretary

Subscribed and sworn to before me this 31st day of July, 20 24

X 
Notary Public Signature

Notary Seal

Note: The above information is subject to verification prior to the award of the Contract.



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SECTION 5

CONTRACT AND EDS EXECUTION PAGE

The Applicant hereby certifies and warrants that all of the statements, certifications and representations set forth in this EDS are true, complete and correct; that the Applicant is in full compliance and will continue to be in compliance throughout the term of the Contract or County Privilege issued to the Applicant with all the policies and requirements set forth in this EDS; and that all facts and information provided by the Applicant in this EDS are true, complete and correct. The Applicant agrees to inform the Chief Procurement Officer in writing if any of such statements, certifications, representations, facts or information becomes or is found to be untrue, incomplete or incorrect during the term of the Contract or County Privilege.

Execution by Corporation

Great Arc Technologies, Inc.

Corporation's Name

312-726-4848

Telephone

x MICHAEL SCANLON 

President's Printed Name and Signature

mscanlon@greatarc.com

Email

x 7/31/2024

Date

x 
Secretary Signature

Execution by LLC

LLC Name

*Member/Manager Printed Name and Signature

Date

Telephone and Email

Execution by Partnership/Joint Venture

Partnership/Joint Venture Name

*Partner/Joint Venturer Printed Name and Signature

Date

Telephone and Email

Execution by Sole Proprietorship

Printed Name Signature

Assumed Name (if applicable)


Date

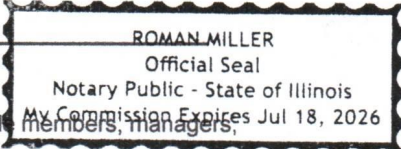
Telephone and Email

Subscribed and sworn to before me this

31st day of July, 2024.

My commission expires: 07/18/2026


Notary Public Signature

Notary Seal 

*If the operating agreement, partnership agreement or governing documents requiring execution by multiple members, managers, partners, or joint venturers, please complete and execute additional Contract and EDS Execution Pages.

SECTION 6
COOK COUNTY SIGNATURE PAGE

ON BEHALF OF THE COUNTY OF COOK, A BODY POLITIC AND CORPORATE OF THE STATE OF ILLINOIS, THIS CONTRACT IS
HEREBY EXECUTED BY:

Raffi
Sarraffian

Digitally signed by
Raffi Sarraffian
Date: 2024.11.14
10:08:06 -06'00'

Cook County Chief Procurement Officer

Date

APPROVED AS TO FORM:

James Beligratis

Assistant State's Attorney
(Required on contracts over \$1,000,000)

11/4/24

Date

CONTRACT TERM & AMOUNT

2410-06132

Contract #

November 1, 2024 through October 31, 2027 with two (2), one-year renewal options

Original Contract Term

Renewal Options (If Applicable)

\$1,354,161.72

Contract Amount

October 24, 2024

Cook County Board Approval Date (If Applicable)

APPROVED BY THE BOARD OF
COOK COUNTY COMMISSIONERS
OCT 24 2024
COM _____