

**CITY COUNCIL AGENDA ITEM**  
CITY OF SHORELINE, WASHINGTON

**AGENDA TITLE:** Authorizing the City Manager to Enter Into an Interlocal Agreement with eCityGov Alliance for the 2020 Aerial Mapping Project  
**DEPARTMENT:** Administrative Services  
**PRESENTED BY:** Karen Mast, Information Technology Manager  
**ACTION:**        ☐ Ordinance        ☐ Resolution        ☒ Motion  
                 ☐ Discussion        ☐ Public Hearing

**PROBLEM/ISSUE STATEMENT:**

The City has many functions that require updated and accurate aerial imagery, and the City's current imagery from 2015 is no longer current enough to satisfy the needs of City services. This includes updated imagery for the comparison of plan sets for accuracy, identifying current land uses, engaging in code enforcement, responding to questions and concerns in the right-of-way, and identifying assets and conducting inspections for asset management. Updated elevation contours and planimetric data is also needed, as elevation and contour data are a vital component of utility modeling for the surface water and wastewater utilities and for engineering staff in the planning phases of capital projects. Aerial imagery is also often used in public outreach and display, making the City's GIS data accessible to a larger audience by providing context.

To provide for this needed aerial imagery update, staff is proposing that the City partner with the eCityGov Alliance, a nonprofit corporation that provides governmental services to its member jurisdictions on a subscription basis. To enact this partnership, the City must enter into an interlocal agreement (ILA) with the eCitygov Alliance for the 2020 Aerial Mapping Project. Tonight, staff is requesting that Council authorize the City Manager to enter into this ILA.

**RESOURCE/FINANCIAL IMPACT:**

The total estimated cost of the aerial imagery mapping project is \$21,552. The Interlocal agreement also provides an option to purchase supplemental products from this project, such as planimetric data (building outlines, impervious surfaces) and elevation data (contour lines) for an additional cost. If these supplemental products are purchased, the cost is estimated to be between \$10,000 to \$15,000. The funds for this project were approved as part of the 2019-2020 biennial budget up to \$50,000.

**RECOMMENDATION**

Staff recommends that City Council move to authorize the City Manager to enter into an interlocal agreement with the eCitygov Alliance for the 2020 Aerial Mapping Project.

Approved By:        City Manager **DT**    City Attorney **MK**

## **BACKGROUND**

Current digital aerial photography and mapping provide the backbone of essential geographic information system (GIS) layers for the City's GIS system. This geographic data supports many of the City's business needs, including traffic engineering, parks and open space planning, long range planning, surface water management and code enforcement. The ability to access aerial imagery at regular intervals throughout time allows for detailed analysis and provides context for decision-making across City functions.

The City has many functions that require updated and accurate aerial imagery, including imagery for the comparison of plan sets for accuracy, identifying current land uses, engaging in code enforcement, responding to questions and concerns in the right-of-way, and identifying assets and conducting inspections for asset management. Updated elevation contours and planimetric data is also needed, as elevation and contour data are a vital component of utility modeling for the surface water and wastewater utilities and for engineering staff in the planning phases of capital projects. Aerial imagery is also often used in public outreach and display, making the City's GIS data accessible to a larger audience by providing context.

The last time the City acquired updated aerial imagery was 2015. This was done through a regional project with King County. Prior to that, the City worked with the eCityGov Alliance for their 2009 and 2012 aerial imagery projects. It is recommended that governmental jurisdictions acquire new imagery every three to five years depending on the level of development and landscape change. Shoreline is currently at the outside edge of this recommended update window.

## **DISCUSSION**

Given the importance of updated aerial imagery and the recommended timeframe by which the update should occur, staff is proposing that the City work again with the eCityGov Alliance, a nonprofit corporation that provides governmental services to its member jurisdictions on a subscription basis, on their 2020 Aerial Mapping Project. To enact this partnership, the City must enter into an interlocal agreement (Attachment A) with the eCitygov Alliance for this mapping project.

The term of the agreement is through completion of the mapping project (which is scheduled to be completed this year) or January 31, 2021, whichever comes first. Other participating jurisdictions in the 2020 Mapping Project include the cities of Bellevue, Bothell, Des Moines, Issaquah, Kenmore, Kirkland, Mercer Island, Newcastle, Sammamish, SeaTac, and the Northshore Utility District.

Alternatives to entering into the 2020 Mapping Project Interlocal Agreement are as follows:

- **Forgoing Updated Aerial Imagery Altogether.** This would result in an increase in staff time in the field verifying data, less accurate planning decisions, and a reduction in customer response service levels. It is difficult to quantify the actual costs as they would be spread out and multiplied over multiple City functions.

- **Purchasing an Off-the-Shelf Data Set.** King County and a number of other vendors offer off-the-shelf imagery, but a cost comparison revealed little to no savings and a reduction in the quality of the delivered imagery and mapping.
- **Contracting with a Vendor Directly to Acquire the City's Own Imagery.** This would be prohibitively expensive as the base costs of getting an aircraft in the air and processing the data would not be shared with any other agencies. Estimates in 2018 for Shoreline flying alone reached \$40,000 with no supplemental products, outside quality control process, or project management costs included.

Based on these alternatives, staff recommends the City proceed with the interlocal agreement with the eCitygov Alliance for the 2020 Aerial Mapping Project. This option will provide the best quality aerial imagery at the least cost. If Council opts to not participate in the Project with the eCitygov Alliance, it is uncertain when the City might be in a position to work with this regional group in the future.

### **RESOURCE/FINANCIAL IMPACT**

The total estimated cost of the aerial imagery mapping project is \$21,552. The Interlocal agreement also provides an option to purchase supplemental products from this project, such as planimetric data (building outlines, impervious surfaces) and elevation data (contour lines) for an additional cost. If these supplemental products are purchased, the cost is estimated to be between \$10,000 to \$15,000. The funds for this project were approved as part of the 2019-2020 biennial budget up to \$50,000.

### **RECOMMENDATION**

Staff recommends that City Council move to authorize the City Manager to enter into an interlocal agreement with the eCitygov Alliance for the 2020 Aerial Mapping Project.

### **ATTACHMENTS**

Attachment A: Interlocal Agreement with eCityGov Alliance for the 2020 Aerial Mapping Project, Including Exhibits A, B and C

## **INTERLOCAL AGREEMENT BETWEEN eCITYGOV ALLIANCE AND THE CITY OF SHORELINE CONCERNING THE 2020 AERIAL MAPPING PROJECT**

This Interlocal Agreement (“Agreement”) is made by and between eCityGov Alliance (“Alliance”), a public nonprofit corporation organized in accordance with a multi-jurisdictional interlocal agreement pursuant to chapter 39.34 RCW Interlocal Government Act, and the City of Shoreline (“City”), a Washington State municipal corporation organized as a non-charter optional code city pursuant to RCW Title 35A. This Agreement is authorized by chapter 39.34 RCW Interlocal Corporation Act. The Alliance and the City may be referred to herein collectively as the “Parties” or individually as a “Party”.

### **I. PURPOSE**

The Alliance is a public body and instrumentality of its members to jointly exercise essential government functions of its members pursuant to chapter 39.34 RCW. The Alliance has created programs and services for its members and offers these on a subscription basis to, among others, Washington municipal corporations.

The Alliance is facilitating an orthophotography imagery program that would provide aerial imagery for various planning purposes, including infrastructure, utilities, and community development.

The City has an interest in participating in the orthophotography imagery program because acquiring high quality aerial orthophotography imagery is critical to the City’s ability to perform, planning services, permitting services, code enforcement, asset management, and maintain parks and rights-of-way.

Accordingly, the Parties desire to entire into this Agreement, under the authority of chapter 39.34 RCW Interlocal Cooperation Act, to undertake the orthophotography imagery program.

Pursuant to and in accordance with the foregoing and the powers accorded to the Alliance and the City, the Parties enter into this Agreement as an exercise of their joint authority.

NOW, therefore, in consideration of the mutual benefits of this Agreement, the Alliance and the City agree as follows:

### **II. ATTACHMENTS**

The following attachments are incorporated by reference and made a part of this Agreement:

- A. The Project scope of work and technical specifications are set forth in Attachment 1.
- B. The Project Fees are set forth in Attachment 2.
- C. The Project Area covered for the City is set forth in Attachment 3

### III. DEFINITIONS

In administering this Agreement, the following definitions shall apply. Any term or phrase is not expressly defined below it shall be given its usual and customary meaning.

**Administrative Fees**

Administrative Fees are incurred through the administrative tasks necessary to manage the Project. This includes the responsibilities of the Alliance Executive Director, Project Manager and Administrative Staff responsibilities such as contract drafting, invoicing, finance management, issue identification and resolution, and technical support.

**Aerial Imagery**

Photographs captured from a manned aircraft and geo-referenced to ground control points.

**Base Product**

The base product is the acquisition of aerial imagery suitable for production of high-quality digital elevation data, high-resolution color orthophotography, and map compilation for the agreed upon project area. The product will be used to produce new ortho imagery and optionally, to update existing impervious surface features and topographic contours.

**High-Resolution**

Imagery in which each pixel of the imagery shall represent no more than one quarter (1/4) square foot area.

**Impervious Surfaces**

Surfaces which are intended to include but not limited to, paved surfaces, building foot prints, paving tiles, sport courts, car ports.

**Project**

The Project is the orthophotography imagery program that will provide high-quality imagery to be used for various planning purposes including infrastructure, utilities, and community development.

**Project Manager**

An independent contractor selected by Alliance who will provide regular communications, schedule updates, coordination with the City, and some data quality control services for the Project through a contract with the Alliance.

**Supplemental Fees**

Supplemental fees are in addition to the Vendor Fees for supplemental products requested by the City and invoiced separately from the Vendor Fee invoices.

**Supplemental product**

A product, such as topographic contours and impervious surface mapping, that are not part of the Base Product.

**Topographic Contours**

GIS dataset representing continuous elevation lines.

**Vendor**

An expert aerial mapping firm, or team of firms, selected by Alliance to enter into a professional services agreement (PSA) covering the duration of the Project, who will have the responsibility of completing the scope of work (SOW) attached to this Agreement (see Attachment 1).

**Vendor Fees**

Vendor fees will be based on a per-map cost negotiated with the Vendor, with City's totals varying depending on project area extents and adjacent agency project area overlaps. The Alliance will distribute a Project pricing spreadsheet to the City as a summary of what these costs will be.

**IV. AGENCY COMMITMENTS – Roles and Responsibilities****A. Alliance responsibilities.****1. Administration**

- a. The Alliance will serve as fiscal, administrative, coordinating and contracting agency on the Project through completion, estimated to be through January 31, 2021.
- b. The Alliance will engage or provide three individuals/vendors which include the following:
  - i. An aerial mapping vendor/vendor team ("Vendor") to utilize industry best practices and technology solutions to develop products meeting the City's business needs for the urban mapping environment.
  - ii. An experienced orthophotography coordinator who will act as the dedicated Project Manager who will monitor all Project phases and communicate effectively with Alliance, the City, and the Vendor.
  - iii. Alliance administrative staff who will assist with contract creation, financial transactions and other administrative support for the Project. The contract creation effort includes the Memorandum of Agreement, Professional Services Contracts and Scopes of Work for the Project Manager, as well as the Vendor.
- c. The Alliance will assign appropriate resources to manage the Project and act as managing agency with Alliance Executive Director as overall Project Administrator, who will also manage the staff providing administrative support and the Project Manager.
- d. Alliance will conduct the Project as contracting agent, coordinator, and overall manager.
- e. Alliance will develop a Project plan and timeline that will serve as the blueprint for all Project activities so as to ensure the Project is progressing satisfactorily through the various Project tasks and achieving a successful outcome.

**2. Project Manager**

- a. The Alliance shall select a Project Manager to manage Project tasks as an independent representative of the Alliance, working diligently to ensure timely completion and delivery of high-quality deliverables within the specified timeline and budget.
- b. Project Manager tasks include but are not limited to:
  - i. Communicating project status and other related information among the City and the Vendor(s),
  - ii. Attending all required meetings,

- iii. Updating the Project schedule as needed, and
    - iv. Presenting project status reports.
  - c. The Project Manager shall be retained by separate agreement to be executed by the Alliance, which shall state that the Project Manager is and shall act as an independent consultant and not as the employee, agent, or representative of the Alliance or the City in the performance of any services for the Alliance or the City .
  - d. The Project Manager is expected to oversee an effective execution of Project tasks and activities, including regular interaction with both the City and Vendors.
3. Vendor
- a. The Alliance shall select a Vendor to perform and deliver Project deliverables as an independent entity from the Alliance or the City, working diligently to ensure timely completion and delivery of high-quality deliverables within the specified timeline and budget.
  - b. Tasks to be performed by the Vendor are substantially defined in Attachment 1 to this Agreement.
  - c. The Vendor shall be retained by separate agreement to be executed by the Alliance, which shall state that the Vendor is and shall act as an independent consultant and not as the employee, agent, or representative of the Alliance or the City in the performance of any services for the Alliance or the City.
4. Maintenance of Records
- a. The Alliance and its fiscal agent shall maintain books, records, documents and other evidence that sufficiently and properly reflect all direct and indirect costs expended in the performance of the Project and services related to the Project described herein.
  - b. These records shall be subject to inspection, review or audit by personnel from the City, other personnel duly authorized by the City, the Office of the State Auditor, any person making a request for information under the Public Records Act, and federal officials so authorized by law.
  - c. All books, records, documents, and other material relevant to this Agreement will be retained for six (6) years after expiration of the Agreement. The Office of the State Auditor, federal auditors, and any persons duly authorized by the City shall have full access and the right to examine any of these materials during this period. If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

## **B. City Responsibilities**

- 1. Assign adequate staff or other resources to review Project deliverables within the indicated time constraints. Any deliverables returned to the Vendor for rework will also be subject to a redelivery/review/acceptance timeline.
- 2. Participate in all required meetings.
- 3. Timely issue payment for invoices.

## V. DELIVERABLES

- A. This Project is intended to provide an expedient data set to the City which has identified business needs for current aerial mapping products.
- B. The deliverables include aerial mapping products, and the Base Product will be high-resolution color orthophotography suitable for large-scale urban mapping applications as described in Attachment 1.
- C. The orthophotography will cover the area of interest indicated by the City in its entirety as shown Attachment 3.
- D. Supplemental Products, such as topographic contours and impervious surface mapping may be provided. These Supplemental Products will be accommodated as secondary priorities within the overall Project scope, with the color orthophotography being the primary deliverable.
- E. All data requested and paid for by the City will be provided to the City as the main deliverable, including both Base Product and Supplemental Product data.
- F. The City will own full legal title to such deliverables paid for and received pursuant to this Agreement. If the City terminates its participation in this Agreement, it will own any deliverables that it paid for and received, but it will not have any right to receive further deliverables relating to the Project under the terms of this Agreement.

## VI. CONTINGENCY

- A. In the event that a suitable leaf-off weather window (February 1 – April 1) is unavailable, the City will be asked to indicate to the Alliance its preference to one of the following:
  - 1. Cancel the Project and Terminate this Agreement (with partial payment of Vendor flight mobilization fees and Alliance expenses), OR
  - 2. Defer the flight either until:
    - a. The next suitable weather window, but no later than July 1, 2020, or
    - b. Spring 2021 (with partial payment of Vendor flight mobilization fees and Alliance expenses).

## VII. FINANCIAL TERMS AND PAYMENT PROCESS

- A. The Alliance agrees to serve as contracting agent for this Project, executing and administering a professional services agreement with its selected Vendor. The funding for the Project shall be as follows:
  - 1. Vendor fees. Alliance will distribute a Project pricing spreadsheet to the City as a summary of what these costs will be as shown in Attachment 2. These amounts will be based on a per-map cost negotiated with the Vendor.
  - 2. Administrative fees. Alliance will also include an administrative fee as part of the total costs as shown in Attachment 2. These amounts are based on costs incurred by Alliance to pay for the contracted Project Manager and the administrative work associated with

the Project. Administrative work includes contract creation and management, financial management and transactions, contractor management and general Project oversight.

3. Supplemental fees. If the City requests supplementary mapping products such as topographic contours and impervious surface mapping, these products will be invoiced as those deliverables. These fees will be set based on the contract with the Vendor to conduct this additional work and will be invoiced by the Alliance to pay the Vendor.

- B. Alliance will invoice the City for progress payments using the following milestones/schedule:

1. Flight preparation (target January 31, 2020) – 50%
2. Orthophotography submission for review (target June 1, 2020) – 30%
3. Orthophotography final acceptance (target September 1, 2020) – 20%

The dates above are for Alliance accounting purposes only and are not the dates of the actual deliverable milestones from the vendor's work. These are dates to allow for up to 60 days of invoice collection in preparation for payment to the vendor closer to the actual deliverable dates.

- C. Since Vendor payment by Alliance is contingent on the City's payment to Alliance, prompt payment of each of these invoice cycles is required, in no case more than 60 calendar days from invoice receipt by the City. It is the City's responsibility to conduct deliverable reviews and acceptance within these time constraints so that Alliance can process Vendor payments as quickly as possible.
- D. If this Agreement is terminated as provided in Section VII(D), partial payment may be utilized if a Vendor Deliverable has not been completed/accepted according to the Agreement.

#### **VIII. EFFECTIVE DATE, AMENDMENT, DURATION, and TERMINATION**

- A. **Effective Date:** This Agreement shall be effective following the approval of the Agreement by the official action of the governing bodies of each of the Parties and the signing of the Agreement by duly authorized representatives of each Party. The Effective Date shall be the date of the last such signature as set forth below.
- B. **Amendment.** Any amendments to this Agreement shall be in writing and executed in the same manner as provided for the execution of this Agreement.
- C. **Duration.** This Agreement shall remain in full force and effect from the Effective Date through completion of the Project, or January 31, 2021, whichever comes first, unless terminated earlier as provided in Section VII(D).
- D. **Termination.**
  1. This Agreement may be terminated, in whole or in part, by mutual written agreement between the Parties with fourteen (14) days written notice to the other Party.
  2. Each Party shall have the right to terminate this Agreement for cause by giving fourteen (14) days' notice to Alliance in writing.
  3. In the event of such termination, all finished or unfinished documents, data, studies, worksheets, models and reports, or other material prepared by the Alliance pursuant to

this Agreement shall be submitted to the City. In the event this Agreement is terminated by City the Alliance shall be entitled to payment for all hours worked and products produced. This provision shall not prevent the City from seeking any legal remedies it may have for violation or nonperformance of any of the provision of this Agreement and any such charges due the City shall be deducted from the final payment due the Alliance.

4. Either Party shall have the right to terminate this Agreement if the other Party is in material breach of any term of this Agreement pursuant to Section XXX.

- E. Continuing Obligations. Following any amendment or termination of this Agreement, each Party shall nonetheless fulfill all outstanding obligations or liabilities under this Agreement incurred or arising prior to the effective date of the amendment or termination.

#### **IX. INDEPENDENT CONTRACTOR**

In providing services under this Agreement, each Party is an independent contractor and neither it nor its officers, nor its agents nor its employees are employees of the other Party for any purpose, including responsibility for any federal or state tax, industrial insurance, or Social Security liability. Neither shall the provision of services under this Agreement give rise to any claim of career service or civil service rights, which may accrue to an employee of a Party under any applicable law, rule or regulation.

#### **X. HOLD HARMLESS AND INDEMNIFICATION**

- A. To the extent permitted by state law, and for the limited purposes set forth in this Agreement, each Party to this Agreement shall protect, defend, hold harmless and indemnify the other Party, their officers, elected officials, agents and employees, while acting within the scope of their duties as such, from and against any and all claims (including demands, suits, penalties, liabilities, damages, costs, expenses, or losses of any kind or nature whatsoever) arising out of or in any way resulting from such Party's own negligent acts or omissions related to such Party's participation and obligations under this Agreement.
- B. Each Party agrees that its obligations under this subsection extend to any claim, demand, and/or cause of action brought by or on behalf of any of its employees or agents. For this purpose, each Party, by mutual negotiation, hereby waives, with respect to the other Party only, any immunity that would otherwise be available against such claims under the industrial insurance act provision of Title 51 RCW. The provisions of this subsection shall survive and continue to be applicable to any Party exercising the right of termination.

#### **XI. DISPUTE RESOLUTION AND BREACH**

- A. Dispute Resolution.
  1. For the purpose of this Section, any written request or notice shall be sent to the Parties as set forth in Section XIII(H), Notices.
  2. Performance of each Party's obligations and responsibilities of this Agreement, not subject to the dispute, shall continue during any dispute resolution or mediation proceedings.
  3. If the Parties are unable to resolve the dispute after utilizing the methods set forth in this Section, then either Party may seek to enforce the provisions of this Agreement through any method afforded by law.

4. Methods of dispute resolution are as follows:
  - a. Informal Resolution. It is the Parties' intent to work cooperatively and in good faith to resolve any disputes in an efficient and cost-effective manner. In the event of any dispute as to the interpretation or application of the terms or conditions of this Agreement, Alliance and the City, through their designated representatives, shall meet within ten (10) working days after the receipt of a written request from the other Party for the purpose of attempting, in good faith, the prompt resolution of the dispute. Such a meeting may be continued by mutual agreement of the Parties to a date certain to include other persons or parties, or to obtain addition information.
  - b. Mediation. In the event that such a meeting does not resolve the dispute, or the meeting is not held within ten (10) working days, prior to commencing any litigation, except for a request for a temporary restraining order or preliminary injunction, the Parties shall first attempt to mediate the dispute. The Parties shall mutually agree upon a mediator to assist them in resolving their differences. If the Parties cannot agree on a mediator, a mediator shall be designated by the American Arbitration Association. Any mediator so designated must be acceptable to the Parties. The mediation will be conducted in King County, Washington. Any Party may terminate the mediation at any time. All communications during the mediation shall be confidential and shall be treated as settlement negotiations for the purpose of applicable rules of evidence, including Evidence Rule 408. However, evidence that is independently admissible shall not be rendered inadmissible by nature of its use during the mediation process. The mediator may not testify for either Party in any subsequent legal proceeding related to the dispute. No recording or transcript shall be made of the mediation proceedings. The cost of any mediation proceedings shall be shared equally by the Parties. Any cost for a Party's legal representation during mediation shall be borne by the hiring Party.

B. Breach of Agreement.

1. If the Alliance fails to retain a Vendor and/or a Project Manager within the time period contemplated by this Agreement or fails to timely deliver the Base Products and Supplemental Products, if applicable, then the Alliance shall be considered in material breach of this Agreement. The Alliance shall cure this material breach within thirty (30) calendar days of the City's written request to perform. During this time, the City may without any and all payments due until such time as the Alliance cures this material breach.
2. If the Alliance fails to cure a material breach within thirty (30) calendar days of the request to perform, then this Agreement shall terminate and the Alliance shall not be entitled to any payments, invoiced or not invoiced.
3. Waiver of breach of any provision of this Agreement shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of the Agreement unless stated to be such through written approval of the Parties.

## XII. FILING

A fully executed copy of this Agreement shall be filed with the Shoreline City Clerk and posted on the City of Shoreline website pursuant to RCW 39.34.040 within thirty (30) days of the Effective Date.

**XIII. ADDITIONAL TERMS**

- A. **Governing Law and Venue.** This Agreement shall be governed by the laws of the State of Washington. The venue for any action hereunder shall be in the Superior Court of Washington for King County.
- B. **Compliance with laws.** In meeting the commitments encompassed by this Agreement, the Parties shall comply with all applicable state or local laws.
- C. **Interpretation.** This Agreement shall be interpreted to the extent possible in a manner consistent with all applicable laws and not strictly for or against either party.
- D. **Severability.** If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the remaining provisions shall continue in full force and effect. If any provision of this Agreement shall be held invalid, such invalidity shall not affect the other provisions of this Agreement which shall remain in effect without the invalid provision, if such remainder conforms to the requirements of applicable law and the fundamental purpose of this Agreement. To this end, the provisions of this Agreement are declared to be severable. Should the invalidated provision be necessary to accomplish the purpose of the Agreement, the Parties agree to negotiate a provision which will allow such purpose to be accomplished. If agreement cannot be reached on a replacement provision, the Agreement will be deemed terminated as of the date required by the invalidation.
- E. **Survival.** Terms of this Agreement, which by their nature would continue beyond termination, will survive termination of this Agreement for any reason, including without limitation, terms in Sections IV(1)(4), VIII(E), X, and XI(A)(b).
- F. **No Waiver.** The failure of any Party to exercise any rights or remedies under this Agreement shall not be a waiver of any obligation by that Party and shall not prevent any Party from pursuing the right at any future time.
- G. **No Third-Party Beneficiaries.** This Agreement is for the benefit only of the Parties and is not intended to benefit any other person or entity. No person or entity not a party to this Agreement shall have any third-party beneficiary or other rights whatsoever hereunder. This Agreement is not intended to and shall not be construed to benefit a particular class of persons or individuals.
- H. **Notice.** Any notice required by this Agreement is effective only if provided in writing to the individual designated in this section or to their successors. Notice shall be delivered electronically via email except a notice of amendment, termination, or breach shall be delivered both electronically via email and by U.S. Certified Mail.

eCityGov Alliance  
 Attn: Executive Director  
 PO Box 90012  
 Bellevue, WA 98009-9012  
 info@ecitygov.net

City of Shoreline  
 Debbie Tarry, City Manager  
 17500 Midvale Avenue N  
 Shoreline, WA 98133  
 dtarry@shorelinewa.gov

- I. Entire Agreement. This Agreement contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind any of the parties.
- J. Non-Discrimination. No Party shall discriminate against any person on the grounds of race, creed, color, religion, national origin, sex, age, marital status, political affiliation or belief or the presence of any sensory, mental or physical handicap in violation of any applicable federal law, Washington State Law Against Discrimination (RCW chapter 49.60) or the Americans with Disabilities Act (42 USC 12110 et seq.). In the event of the violation of this provision, the other Party may terminate this Agreement immediately.
- K. Legislative Changes. The parties intend this Agreement to remain effective in the event of legislative change to authority cited above. The provisions of this Agreement shall be deemed to change in a manner that is consistent with any changes to cited authority.
- L. No Joint Venture or Partnership. No joint venture, separate administrative or governmental entity, joint board, or partnership is formed as a result of this Agreement.
- M. Successors and Assigns. Neither the City nor the Alliance shall assign, transfer or encumber any rights, duties or interests accruing from this Agreement without the written consent of the other.
- N. Public Records Act. The Parties are both public agencies subject to Washington's Public Records Act, chapter 42.56 RCW, and that all documents produced in connection with this Agreement, including audit records, may be deemed a public record as defined in the Public Records Act and that if a public records request received, unless a statute exempts disclosure, the custodial party must disclose the record to the requestor.
- O. Headings and Construction. Section headings are intended as information only and shall not be construed with the substance of the section they caption. In construction of this Agreement, words used in the singular shall include the plural and the plural the singular, and "or" is used in the inclusive sense, in all cases where such meanings would be appropriate.
- P. Execution in Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed an original, and all counterparts together shall constitute but one and the same instrument.
- Q. Authority to Execute. Each individual executing this Agreement on behalf of the respective entity represents and warrants that he or she is duly authorized to execute and deliver this Agreement on behalf of such entity, and that this Agreement is binding upon that entity in accordance with its terms.

This Agreement is executed by:

eCityGov Alliance

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Print Name)

City of Shoreline

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Debbie Tarry, City Manager

Approved as to Form:

Attorney for eCityGov Alliance: \_\_\_\_\_

Attorney for City of Shoreline: \_\_\_\_\_



## ATTACHMENT A – SCOPE OF WORK

### 2020 Aerial Mapping Project

#### 1. Introduction

The 2020 Aerial Mapping Project (“Project”) will commence with the acquisition of high-quality, digital, 3-band imagery. This product will be used to produce new ortho imagery and optionally, to update existing impervious surface features and topographic contours. The area of new orthoimagery is approximately 246.6 square miles in size and includes the agencies (“Participants”) shown in *Figure 1*, many of them with overlapping project areas.

The Project will involve all photogrammetric processes necessary to create high quality color (RGB) orthophotography, as well as other aerial mapping products as identified. The Project scope will be described here as a sequence of tasks, each with deliverables and specifications. Effective project management by the selected vendor will be a key, overarching task that will receive significant emphasis during the Project. The Participants will apply extensive quality control reviews and approvals at key milestones, upon which authorization for subsequent tasks will depend. The primary deliverables for the Project are shown below in *Table 1*.

The Project will be sponsored and managed administratively by the eCityGov Alliance (“Alliance”), a governmental agency formed under chapter 39.34 RCW and organized as a Washington nonprofit corporation, located in Bellevue City Hall, Bellevue, Washington (<http://ecitygov.net/Default.aspx>). In this role, Alliance will be responsible for executing a professional services agreement (“PSA”) with the vendor, as well as all matters pertaining to Project finances (vendor billing, Participant invoicing, etc.). Supporting Alliance will be a dedicated project manager/coordinator who will monitor all Project phases and communicate effectively with Alliance, Participants, and the vendor.

- *DTM points will be provided in LAS format to allow use of a dense grid of existing 2016 Lidar data. Data will be updated with the addition of new breaklines and points where needed to create satisfactory contours, TINs, etc.*
- *Data deliverables will include metadata.*

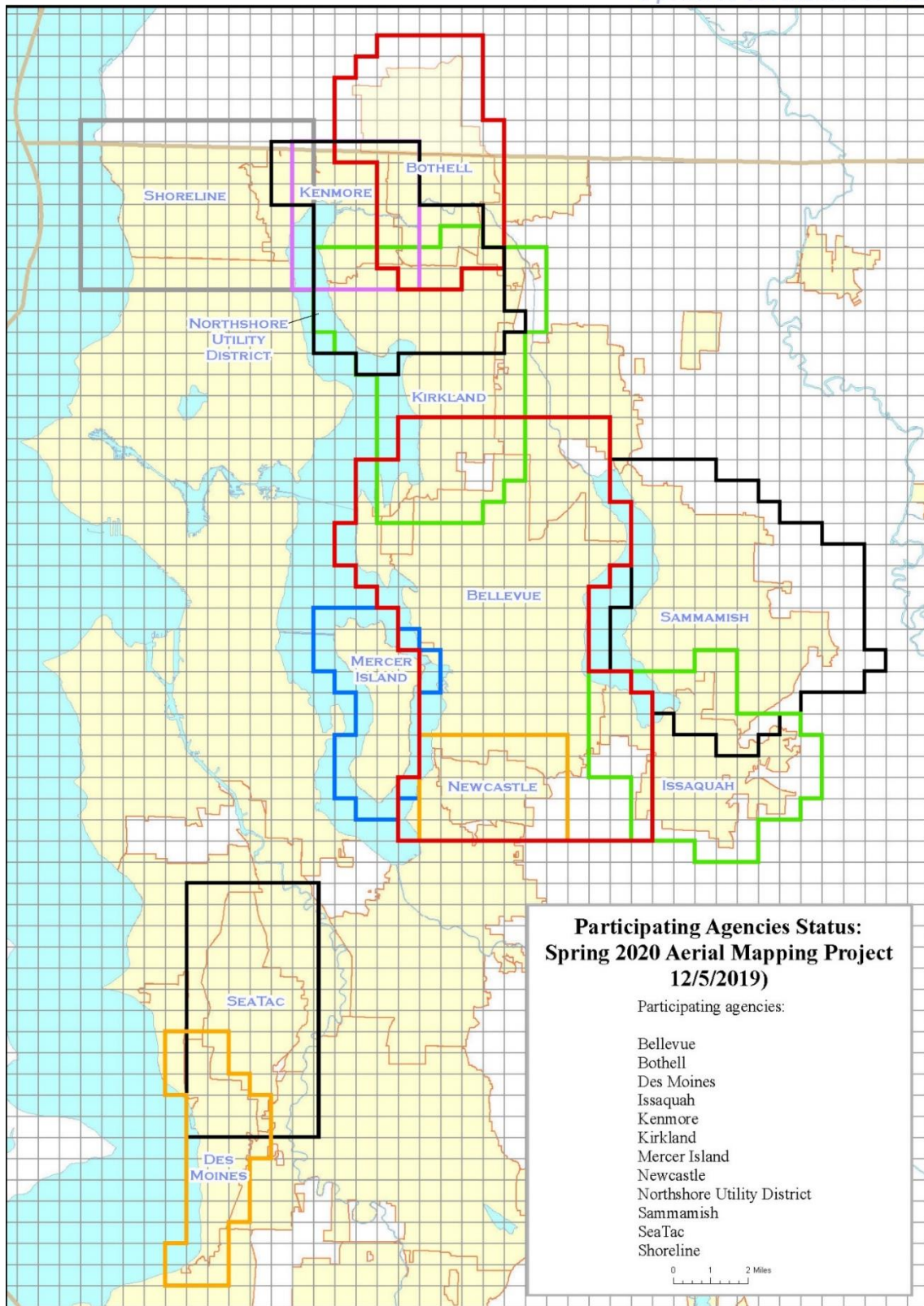


Figure 1. Spring 2020 Eastside Aerial Mapping Project Extents



## **2. Project Management**

The vendor will abide by the following minimum requirements:

- A collaborative Project Team approach
- Bi-weekly status reports or other jointly agreed-upon progress tracking mechanism
- Progress billing based on actual work accomplished at mutually agreed-upon milestones
- Accurate, complete documentation
- Strict adherence to agreed-upon budget and schedule
- Use of photogrammetric industry best practices for large-scale, urban mapping products
- Specific, timely issue/resolution summaries as needed

### **Vendor Project Management Team**

The vendor will designate a Responsible Person-in-charge for the duration of the Project who will act in an executive capacity with regard to contractual, technical oversight, and resource commitment matters. For all Project work and deliverables, it is the expectation of Alliance and the Participants that the vendor will assemble a highly competent technical production team led by a seasoned, expert project manager. If these resources include one or more subcontractors, such arrangements should be clearly communicated in advance to Alliance. Likewise, the commitment of particular aircraft and sensors to the Project should be established early on. Significant changes to any of these resourcing matters should be discussed expeditiously with Alliance and its project manager when such changes appear imminent and/or necessary.

## **3. Task 1 – Project Planning and Ramp-up**

In this task, the vendor will attend a kickoff meeting with the Participants to review the vendor project plan. At this juncture, it is expected that the contracted scope of work will be detailed and complete, with few exceptions. This meeting will be an opportunity to clarify any remaining questions or issues about the project and how it is to proceed. The goal is to finalize the entire body of work to be completed, roles and responsibilities, timeline, and critical quality metrics. Specifically, the Alliance Executive Director, the Alliance project manager, the vendor Responsible Person-in-charge, the vendor project manager, and selected Participant representatives will review:

- Contracted Scope of Work
- Project area map
- Imagery acquisition: weather opportunities, challenges, and contingency plans
- Survey control
- Imagery quality parameters



- Accuracy requirements
- Selection of pilot area(s)
- Production sequence
- Quality control procedures and milestones
- Acceptance criteria: orthophotography and vector data
- Schedule
- Budget and invoicing
- Communication plan
- Vendor resource commitment (project management, staff, equipment, etc.)

After this task is completed, the Alliance project manager will summarize the kickoff meeting addressing all open issues and critical path items. The Alliance project manager will circulate this summary to the Participants and authorize Task 2 to begin.

*Vendor Deliverables:* Alliance/Vendor meeting, project plan

*Alliance Deliverables:* Alliance/Vendor meeting, meeting notes

#### 4. Task 2 – Flight Planning

The foundation for the Project is the acquisition of aerial imagery suitable for production of high quality digital elevation data, high-resolution color orthophotography, and map compilation for the project area. Based on the project extent for ortho delivery (~ 246.6 mi<sup>2</sup>), the vendor will develop a preliminary flight plan for collecting digital imagery for the Project.

Parallel flight lines are designed in a north-south direction, except for additional spot shots and flight lines taken over major bridge overpasses. All imagery will be acquired at a maximum GSD of 7cm ( $\leq 0.229$  foot). Forward overlap within a line will be maintained at a minimum of 80% for all lines. Side overlap between lines will be a minimum of 40% for all lines. Additional “spot shots” and lines will be flown directly over significant bridges to ensure minimal distortion of elevated structures.

Given that the optimal leaf-free flight window in the Puget Sound area is very short due to sun angle and unpredictable spring weather conditions, the vendor’s flight plan will address three scenarios: a) Assuming sufficient time and optimal flight conditions beginning with March 5<sup>1</sup>, the vendor will commit to completing the entire flight mission in its entirety before full leaf-out; b) conditions not permitting, the flight plan will be revised to reflect an early-summer mission, conceivably with a somewhat- or much-reduced Project area; c) the Project will be either cancelled or deferred until 2021 (no flight plan required).

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<sup>1</sup> Assuming suitable atmospheric/flight conditions, 2 hours flying time with a sun angle at least 35°



Should Scenario a) not be feasible, Alliance, Project Participants, and the vendor will fully discuss alternative approaches and promptly decide on a contingency plan. At this point the vendor will immediately prepare and submit an invoice to cover expenses to date, including project management, aircraft mobilization, survey control, etc.

The vendor flight plan will address the following factors:

- Coverage to the full extent of project area tiles regardless of land/water boundary.
- Type of aircraft, camera and airborne GPS configuration.
- Image overlap including sufficient coverage at project edge.
- Additional images over freeway interchanges and other elevated structures to minimize “lean”
- Minimum sun angle requirements for reduced shadows.
- Coordination with Sea-Tac ATC.
- Contingency options for weather, aircraft, and/or equipment issues
- Post-flight imagery inspection and scheduling of reflight(s), if needed
- Supplemental survey control needed

*Vendor Deliverable:* Flight plan

*Alliance Deliverables:* Vendor flight plan review and approval

### 5. Task 3 – Survey Control Plan

The vendor will assess all existing ground control for Project suitability. If required, additional ground control will be surveyed to adequately extend over the Project area to meet accuracy requirements for 0.25' orthos and 2-foot contours. Preliminary analysis shows adequate control exists to produce the intended mapping products per specification. The vendor may utilize existing survey control and related sources such as points from the 2017-18 Eastside projects, the 2016 PSLC regional lidar project, and various WDOT projects that fall within the Project area. The Project goal is to utilize existing sources where possible and add supplemental control where necessary.

Coordinates will be provided as follows:

*Horizontal: NAD83(91) Washington State Plane North*

*Vertical: NAVD88*

*Mapping units: U.S. Survey Feet*

The survey control plan will also use Airborne GPS (AGPS) and IMU collected by the aircraft during acquisition. The AGPS provides accurate sensor location at time of exposure. The IMU collects the sensor orientation at time of exposure. AGPS and IMU will supplement existing ground control, photogrammetric tie-points, and lidar data to provide the final adjusted fit for the aerial triangulation.



*Vendor Deliverables:* Control plan; additional survey control points (if needed)

*Alliance Deliverables:* Review of control plan and summary

## 6. Task 4 – Flight(s); Imagery Collection

The vendor will conduct the aerial imagery acquisition as set out in the Task 2 Flight Plan. The vendor will schedule and execute the aerial mission(s) per the approved plan, utilizing the first opportunity on or after March 5, 2020 to meet basic aerial imagery requirements (satisfactory weather, sun angle, etc.). Imagery will not be collected when the ground is obscured by haze, snow, smoke, dust, floodwaters or other environmental factors that may hide ground detail. Clouds and/or shadows of clouds will not appear in the imagery. To minimize ground object shadows, the sun angle/altitude will be at least 35° above the horizon when the imagery is collected.

During acquisition, the vendor's project manager will communicate daily with the Alliance project manager with status and specific information regarding which areas have been completed, problems (if any) encountered, and estimated time of task completion. In addition to the immediate post-flight imagery inspection (Task 2, above), the vendor will expeditiously process and quality check the imagery, and report results to the Alliance project manager (see Task 5, below). This report will include:

- Tabular listing and digital map (compatible with Flight Plan map) of final AGPS photo centers
- Dates and times of flights (by flight line)
- Summary of imagery quality (density, defects, consistency, etc.)
- Equipment and procedures used in evaluating imagery geometry and quality
- Description and location of re-flights if needed.

*Vendor Deliverables:* Imagery files; summary report (document); adjusted AGPS photo center positions with standard deviations (map and MS Excel spreadsheet)

*Alliance Deliverables:* Review and summary

## 6. Task 5 – Imagery Review

As flight(s) are completed and aerial imagery is available, the vendor will proceed to review the imagery in accordance with the agreed upon specifications. The



imagery will support the production of high quality orthophotography and other deliverables listed earlier. The goal of this task is to identify unacceptable imagery, if any, so that re-flights can be scheduled with all due haste. The vendor will utilize the production environment, equipment, procedures, trained staff, and specifications agreed to in the Task 1 kickoff meeting. If specifications must be adjusted, the vendor will fully disclose and obtain concurrence from the Alliance project manager before proceeding. Of importance are any quality issues pertaining to radiometry, geometry and usability for aerial triangulation (AT) as well as orthophotography production. Rework will be identified and scheduled as necessary. The imagery collection task will be substantially completed before AT begins.

Raw camera imagery will be processed in *UltraMap* software and exported to RGB, 8-bit TIFF images for production of deliverables. Images will be reviewed ASAP to identify specific issues requiring re-flight, such as: the presence of small clouds, cloud shadows, and image anomalies. All errors and issues will be noted, and a re-flight will be performed immediately (subject to weather constraints). Rejected photos will be removed from further production. Re-flights will include at least one additional image captured before and after replacement images within a flight line. Re-flights will occur as close as possible to the acquisition time of surrounding imagery to ensure best match of sun and shadows. Final imagery will be radiometrically balanced to remove sun spots, and a project-wide color adjustment will be applied to provide a similar color and histogram range to all images. Final delivery will include TIFF images georeferenced to ABGPS photo centers and a QC Report.

*Vendor Deliverables:* Raw image files (georeferenced to ABGPS photo center coordinates), quality control reports

*Alliance Deliverables:* Review of results and summary.

## 7. Task 6 – Aerial Triangulation (AT)

The vendor will utilize the reviewed/accepted imagery, survey control, airborne GPS (photo center positions), and state of the art software solutions to complete this task. At the conclusion of this task, the vendor project manager will brief the Alliance project manager on the task outcome, including the incidence of errant, discarded, or anomalous network points, and the resolution of these gaps.

Final imagery will be imported into INPHO *MatchAT* on a stereo workstation using processed AGPS photo centers and IMU data to geo-reference all photos to their correct location and rotation. Thousands of automatic tie points will be calculated within all areas of image overlap. Graphical display of points allows review of errors and distribution; tie points with high residual errors will be automatically removed. A minimum 3-fold connection will be maintained along a flight line and 6-fold connection between lines. Tie points will be manually added in areas where automatic generation is too sparse (ex: in areas of dense trees) or where large water bodies prevent good automatic placement of points.



Ground control (in NAD83/91, the Project datum) will be measured in all images, and a slightly heavier weight will be applied in the software to adjust the AGPS photos centers to the project datum, a shift of about -0.3 foot (X and Y) in this area. Final tie points will have a sigma naught  $\leq 1.0 - 1.5$ . AGPS and control will be statistically reviewed for fit and accuracy to ensure RMS values are less than 1 – 1.5 pixels.

Results of the AT will meet ASPRS (Dec/2014) guidelines for 2D and 3D digital data per the specifications required for this project. Horizontal accuracy will meet requirements for 0.25' orthos, while 3D data will meet accuracy for 2-foot contours. Per *Table 2* below, the horizontal accuracy class is 0.5 foot and the vertical accuracy class is 1.0 foot per ASPRS standards. Final delivery will include an AT Report with a QC Summary and Final Block Adjustment Results (EO format).

The mapping specifications to be used in this and all subsequent production are:

**Projection/Coordinate system:** Washington State Plane  
 Coordinates (North Zone)  
**Datum/Units:** NAD83 (1991) - Horizontal Datum  
 NAVD88 - Vertical Datum (GEOID 12B)  
 U.S. Survey Feet

**Vendor Deliverables:** AAT Report, AAT solution (electronic format), quality control summary

**Alliance Deliverables:** Historic AAT data; if requested

Accuracy per Current ASPRS Standards (Dec/2014)					
Project 2D and 3D Data					
Ortho Pixel Size (ft)	Horizontal Accuracy Class (ft)	Vertical Accuracy Class (ft)	Non-Veg Vertical Absolute Accuracy for 3D Data (ft)	AT Accuracy for Orthos and 2ft Contour Data (ft)	
	RMSE <sub>xy</sub>	RMSE <sub>z</sub>	95% CL ( $<1.96 \cdot Z$ )	RMSE <sub>xy</sub>	RMSE <sub>z</sub>
0.25	0.50	1.00	1.96	0.25	0.50

*Table 1. Project Accuracy*

## 8. Task 7 – Pilot Test

The vendor will conduct a limited pilot test with actual orthophoto production to demonstrate the quality that will be achieved throughout the project area. To expedite this task, the Participants will choose one test area for which suitable surface elevation data already exists, crossing at least two tiles and multiple image frames. The Participants, the Alliance project manager, and the vendor project manager will review the pilot and jointly develop the criteria that will be utilized in the review and acceptance of all remaining orthophotography deliverables. The vendor will note that treatment of seams, color balance, image sharpness, detail in shadow and highlight areas, and elevated structure “lean”



are all criteria that the Participants will examine closely (Please see Task 12 - Deliverables Review and Acceptance).

Two contiguous pilot tiles will be delivered to the Participants for review, created using updated DEM data, as an example of the final delivery. Other delivery items include: seamlines (Geodatabase format), GeoTIFF tiles, and DEM used.

*Vendor Deliverables:* Orthophoto sample, seamlines and 3D breaklines in Geodatabase format, and DEM used in LAS (points) format; quality control reports, preliminary orthoimagery

*Alliance Deliverables:* Review and summary

## 9. Task 8 – Ortho DEM Update

In this task, the vendor will update the existing ortho digital elevation model (DEM), revising elevation (mass) points and breaklines for the project area as shown on *Figure 1*. Existing orthos will be compared with new images to identify areas of change. New DEM will be collected in stereo for areas of change that will affect accuracy during image rectification. Preliminary orthos will be reviewed to identify issues caused by DEM errors such as gaps and anomalies. Due to use of dense Lidar data, updated ortho DEM will be delivered in LAS format for DEM points and 3D breaklines (Geodatabase format). *Note:* The Task 8 DEM update is minimal and only for orthorectification quality. It is important to provide final orthos to users as early as possible without delays caused by contour-quality update. (See Task 10 for discussion of the DTM update for 2-foot contours).

*GT Deliverables:* New or updated project-wide DEM; Area of Change polygons in Geodatabase format; quality control reports

*City Deliverables:* Existing Project area DEM and Lidar data

## 10. Task 8a – Impervious Change Review

In this task, the vendor will utilize preliminary orthophotography and existing impervious GIS data sets from those Participants opting for this deliverable, to do a detailed review of areas of change within *impervious* project extents as shown in *Figure 1*. The goal is to quickly delineate a reasonably complete overview of areas of impervious feature change. The vendor's price quotation assumes 5% of the specified *impervious* project area will require updates. This task will help refine what percentage of a particular city's impervious project area will require updates, and how that relates to both the price quotation and the available budget.

*Vendor Deliverables:* Area of Change polygons in Geodatabase format;



summary

*Alliance Deliverables:*  
summary

City impervious data sets; review and

## 11. Task 9 – Orthophoto Production

In this task, the orthophotography production will occur for the ortho areas shown in *Figure 1*, including rectification, mosaicking, graphic editing, and clipping of final tiles. The Participants are seeking the highest image quality reasonably attainable through current photogrammetric industry best practices. This includes such parameters as image sharpness, color balance, detail visibility in shadow and highlight areas, treatment of buildings and elevated structures, attention to defects and blemishes, geometry (including edge-matching between adjacent images), and treatment of seam lines. Regardless of the somewhat subjective nature of orthophotography quality control, the Participants expect the vendor will implement and achieve a uniformly high standard of orthophoto quality on this project. The Alliance project manager will work closely with the vendor at the beginning of the Project to establish clear product acceptance criteria. The vendor project manager will ensure that the production sequence agreed upon in the Task 1 kickoff meeting is followed and will provide advance notification of product delivery to the Alliance project manager.

The vendor will utilize INPHO *OrthoMaster* and *OrthoVista* software for all ortho production. Images will be imported into the software using final AT results. Immediately, a preliminary set of orthos will be produced using the existing DEM (no updates) and auto-generated seamlines. Prelims will be provided to the Alliance in a SID/SDW format (40:1 compression) for interim use by the Participants until completion of final orthos.

The optimal center portion from each original image will be used in the final production process by creating “seamlines” using a mixture of automatic and manual methods. Existing building polygons will assist in the best auto-seamline placement. The most nadir portion of each image will be identified while also considering the most logical location to transition to a new image. If possible, seamlines will not be placed down the middle of a road with tall conifers on either side to reduce tall trees from obscuring the road corridor. Final seamlines will be exported to a project-wide shapefile for use in QC Review.

The updated DEM will be used to rectify each new photo. After rectification, mosaicking and cutting the mosaics to the project tile scheme, orthos will undergo an internal QC review. Subsequent corrections will occur prior to delivery to the Participants. The vendor’s internal review will identify and correct the following issues: building and bridge distortions; building lean issues; visibility of features in shadows and highlights, including any issues with excessive dodging and tonal balance; edge matching along seamlines and tile edges; hot spots; blurred imagery; and zero-value pixels (missing data). Finally, data will be provided to the Participants for QC.



Upon completion of client review, each Participant will provide a Geodatabase identifying all corrections to be made. The vendor and Participants will have agreed, during Task 7 – Pilot Test, upon methodology for final QC review and acceptance criteria, including possible use of an online QC portal managed by the vendor for ortho review. Final delivery will include: 8-bit RGB ortho tiles in GeoTIFF and SID/SDW format; seamlines in Geodatabase format; and a QC Report.

*Vendor Deliverables:* Orthophotography, mosaic seamline data, quality control reports

*Alliance Deliverables:* Deliverable reviews

## 11. Task 10 – Contour Production

Updated 2-foot contours will be provided as an option for those Participants desiring this deliverable, for the areas shown in *Figure 1*. The vendor will utilize the 2016 PSLC lidar data as it is the most recent and detailed terrain surface available. Existing lidar will be imported into the vendor's classification software to improve upon the inherent classification errors in the existing data. Ground classified points will be exported into a dense grid of data and supplemented with breaklines along water features (for hydro-flattening), as well as retaining walls and other sharp-edged features using the current stereo imagery. Areas of change since the lidar was collected will be revised with new points and breaklines using the new stereo imagery. Two-foot contours will be generated from the resulting updated DTM.

The vendor will utilize topology checks and other automated techniques to ensure that contour lines do not intersect with others or themselves, do not contain gaps, and if closed are longer than the minimum agreed upon distance at the beginning of the project. The Alliance project manager will provide size/length specifications for closed contour inclusion. Contours will be delivered for each Participant in an ESRI ArcMap Geodatabase (v.10.x) with metadata. The DTM used to generate contours will be delivered in .LAS or .LAZ format for points (due to density of data) and 3D breaklines and waterbodies as a Geodatabase.

*Vendor Deliverables:* 3D breaklines and contours in ESRI ArcMap Geodatabase format (v.10.x); DTM in .LAS format for points

*Alliance Deliverables:* Deliverable review; minimum contour length specifications

## 12. Task 11 – Impervious Feature Mapping

This task involves creating new or updated impervious features for subareas yet



to be determined. Features to be updated include the following:

- Building Rooflines with attributed elevations (for new or changed buildings).
- Paved Driveways
- Paved Streets and Roads
- Bridges
- Paved Parking Lots
- Other features (decks, patios, street islands, miscellaneous walkways, and public-use sidewalks)

The vendor will collect new features (or update existing ones) in stereo, and seamlessly match to existing data where appropriate. Spot elevations will also be collected at the highest point on all new or revised buildings, and a height will be added to the building feature attributes.

The vendor will ensure that all new or revised polygons are closed, can be clearly differentiated in donut (courtyard) situations, and do not overlap themselves or adjacent outlines. Topology checks will be performed on all final polygonal features to identify and correct for erroneous overlaps and gaps. Features will be delivered in an ESRI ArcMap Geodatabase (v.10.x), following each Participant's format, with the following data: buildings, driveways, sidewalks, paved streets and roads, paved parking lots, bridges, and miscellaneous features. Metadata will be added and a Geodatabase of update polygons will be provided. Expected positional accuracy of final data is 1" - 100' map scale (the original scale for most existing data). Features 100 square feet in size or larger are to be mapped.

The vendor will match new features to existing data in accordance with business rules discussed and agreed upon in the Project's kickoff meeting.

*Vendor Deliverables:* ESRI ArcMap Geodatabase (v.10.x) following the Participants' provided format

*Alliance Deliverables:* Existing impervious feature data; parcel permit activity Geodatabase (if available); and deliverable review.

### **13. Task 12 – Deliverables Review and Acceptance**

This task extends throughout the project and involves the systematic quality checking by Participant staff of all vendor deliverables; the notification by the Alliance project manager of product shortcomings, if any; the timely reworking/redelivery of rejected vendor deliverables, as necessary; and the final Participant acceptance of each deliverable. Vendor deliverables are of three types:



1. Meetings, plan documents, communications: These are typical of any major project and are primarily for progress tracking and overall project documentation purposes. The Alliance project manager will review these promptly, notify and distribute to Participants, contact the vendor project manager as necessary for clarifications or corrections, accept, and archive.
2. Interim data products: These include digital components of the production process that are used in creating the final products. Examples are the raw imagery, photo center GPS coordinates, the AT solution/report, and mosaic seamlines. The Participants require these as project deliverables for their internal QC efforts, as well as for potential use in future work. The Alliance project manager will review these promptly, notify and distribute to Participants, contact the vendor project manager as necessary for clarifications or corrections, accept on behalf of the Alliance and Participants, and archive.
3. Final data products: Final delivery includes items noted in *Table 1* at the beginning of this document. The following acceptance criteria, plus any other criteria established after review of the Pilot Area, will be used:
  - Deliverables without correct identification or spatial extents will be immediately returned for vendor rework.
  - Deliverables will undergo a random (spot) check, and if this review reveals 10% or more incidence of defects, the products will be returned to the vendor without further review.
  - Deliverables passing the spot check will undergo a thorough check, and if this review reveals 10% or more incidence of defects, the products will be returned to the vendor for correction without further review. The Alliance project manager and Participant staff may reduce the amount of quality checks if the overall quality of deliverables appears to be high.
  - Participants are expected to conduct their internal deliverable reviews promptly and in no case more than 21 calendar days after product delivery.

The vendor will provide interim delivery of data and reports throughout the project to assist Participant assessment of quality and progress. Consistent and clear communication is key to a successful project, and weekly or bi-weekly status reports will be provided to include current concerns. Issues or shortcomings identified by the Participants throughout the project will be addressed and corrected as soon as possible. Delivery of interim data will include: Flight index, AGPS/IMU, georeferenced raw imagery, AT Report and block adjustment results, and mosaic seamlines.

*Vendor Deliverables:* *Table 1* items

*Alliance Deliverables:* Deliverable reviews, QC documentation



#### 14. Task 13 – Project Closeout

In this task, the vendor and the Alliance project manager will meet to resolve any remaining project issues. Once all issues are resolved, the vendor will submit the final project invoices. The Participants will complete all final product reviews and expedite final payment to the vendor.

*Vendor Deliverables:* Project materials, Alliance/vendor meeting

*Alliance Deliverables:* Deliverable reviews, contract closeout, Alliance/vendor meeting, meeting notes

#### 15. Expected Project Schedule

VENDOR SCHEDULE		
Task or Deliverable	Description	Estimated Schedule
1	Project Planning/Ramp-up	1/1/2020
2	Flight Planning	1/15/2020
3	Survey Control Plan	2/1/2020
4	Imagery Collection	3/5 – 4/7/2020
5	Imagery Review	4/3 – 4/23/2020
6	Aerial Triangulation (AT)	4/24 – 5/31/2020
7	Pilot Test (submission for review)	6/9/2020
8	Ortho DEM Update	6/1 – 6/30/2020
	Delivery of Preliminary Orthos	6/30/2020
8a	Impervious Change Review	6/15 – 7/31/2020
9	Orthophoto Production	6/7 – 9/21/2020
	Delivery of Orthos for Participant Review	9/25 – 11/1/2020
	Submission of Final Orthos	12/15/2020
10	Contour Production	7/31 – 11/15/2020
	Contour Delivery for Review	10/15 – 12/1/2020
11	Impervious Feature Mapping	7/31 – 11/15/2020
	Impervious Delivery for Review	10/15 – 12/1/2020
12	Deliverables Review and Acceptance	11/21 – 12/15/2020
	Close of Participant Ortho Review	11/21/2020
	Close of Participant Contour Review	12/15/2020
	Close of Participant Impervious Review	12/15/2020
13	Project Closeout	12/31/2020

# Attachment A - Exhibit B

ORTHO TILES / AGENCY - 12/12/2019												Base Product TOTAL	Admin Rate %	2% + or -	Grand Total (base + admin)
	Cost/tile*	Tiles/agency	Deliverable tile %	1.00 tiles / cost		.5 tiles / cost		.33 tiles / cost		.25 tiles / cost					
	200.00				200.00		100.00		66.67		50.00				
AGENCY															
Bellevue		223	22%	137	\$ 27,400.00	86	\$ 8,600.00					\$ 36,000.00	\$ 7,107.57	\$ 142.15	\$ 42,965.42
Bothell		74	7%	47	\$ 9,400.00	4	\$ 400.00	20	\$ 1,333.33	3	\$ 150.00	\$ 11,283.33	\$ 2,358.57	\$ 47.17	\$ 13,689.07
Des Moines		39	4%	24	\$ 4,800.00	15	\$ 1,500.00					\$ 6,300.00	\$ 1,243.03	\$ 24.86	\$ 7,567.89
Issaquah		74	7%	39	\$ 7,800.00	35	\$ 3,500.00					\$ 11,300.00	\$ 2,358.57	\$ 47.17	\$ 13,611.39
Kenmore		42	4%	0	\$ -	17	\$ 1,700.00	22	\$ 1,466.67	3	\$ 150.00	\$ 3,316.67	\$ 1,338.65	\$ 26.77	\$ 4,628.54
Kirkland		109	11%	30	\$ 6,000.00	61	\$ 6,100.00	15	\$ 1,000.00	3	\$ 150.00	\$ 13,250.00	\$ 3,474.10	\$ 69.48	\$ 16,654.62
Mercer Island		40	4%	36	\$ 7,200.00	4	\$ 400.00					\$ 7,600.00	\$ 1,274.90	\$ 25.50	\$ 8,900.40
Newcastle		35	3%		\$ -	35	\$ 3,500.00					\$ 3,500.00	\$ 1,115.54	\$ 22.31	\$ 4,637.85
Northshore Utility District		85	8%	4	\$ 800.00	51	\$ 5,100.00	27	\$ 1,800.00	3	\$ 150.00	\$ 7,850.00	\$ 2,709.16	\$ 54.18	\$ 10,613.35
Sammamish		123	12%	105	\$ 21,000.00	18	\$ 1,800.00					\$ 22,800.00	\$ 3,920.32	\$ 78.41	\$ 26,641.91
SeaTac		72	7%	57	\$ 11,400.00	15	\$ 1,500.00					\$ 12,900.00	\$ 2,294.82	\$ 45.90	\$ 15,240.72
Shoreline		88	9%	78	\$ 15,600.00	7	\$ 700.00	3	\$ 200.00			\$ 16,500.00	\$ 2,804.78	\$ 56.10	\$ 19,360.88
												\$ -			
Total:		1,004	100%									\$ 152,600.00	\$ 32,000.00		\$ 184,512.03
												Admin Fee Total Amount		\$ 32,000.00	

\*Rough quote estimate from GeoTerra - October 23, 2019

\*\*Includes eCityGov Alliance (agreement mgmt, contract mgmt, financial mgmt) plus third-party Project Manager expenses

## Shoreline ILA Administration Additional Costs

	Hours	Rate	Total to Date*
Alliance Attorney	2	\$ 345.00	\$ 690.00
Executive Director	4	\$ 115.87	\$ 463.48
		<b>Subtotal</b>	<b>\$ 1,153.48</b>

	Hours	Rate	Total Future Estimated**
Alliance Attorney	2	\$ 345.00	\$ 690.00
Executive Director	3	\$ 115.87	\$ 347.61
		<b>Subtotal</b>	<b>\$ 1,037.61</b>
<b>Grand Total</b>			<b>\$ 2,191.09</b>

\* = 2019 time spent (September - December)

\*\* = Estimated 2020 time (January - December)

