

## AGREEMENT RELATING TO THE 2023 AERIAL MAPPING PROJECT

This Agreement Relating to the 2023 Aerial Mapping Project (Agreement), is entered into by and between the cities of Bellevue, Bothell, Issaquah, Kenmore, Kirkland, Mercer Island, Newcastle, Sammamish, Northshore Utility District (Participants) and eCityGov Alliance (Alliance) all of which may be referred to hereinafter individually as "Party" or collectively as the "Parties." This project and agreement represent a continuation and expansion of the 2022 Aerial Mapping Project that was bifurcated due to some participating jurisdictions choosing to delay their project work from 2022 until 2023.

### 1. PURPOSE

The purpose of this Agreement is a continuation and expansion of the 2022 Aerial Mapping Project that established a collaborative framework for the joint effort between the Alliance and certain government entities that were party to a similar agreement as this expanded Agreement in the Puget Sound Region. This Agreement provides an overall scope, schedule and funding structure for the Participants to cost-share in acquiring high-quality orthophotography imagery to be used by each Participant for various planning purposes, including infrastructure, utilities and community development. This Agreement is a binding commitment by each Participant to honor the financial and schedule requirements set out in the sections below. The overarching goal of this Agreement is to achieve a positive Project outcome for all Participants, which will require each Participant to fully engage in, and expeditiously act on, defined Project milestones.

### 2. BACKGROUND

There is an extensive history of aerial mapping projects in the Puget Sound Region going back many decades – some of it is agency-specific and some collaborative or consortium-based. Overall, these efforts have had varied outcomes ranging from excellent to satisfactory to barely acceptable. Work continues sporadically among professional organizations and ad hoc committees to refine, focus, and execute an effective, workable approach to regional aerial mapping – better expressed as a subset of primary data acquisition for geographic information systems (GIS) and other applications.

With the ongoing development of Seattle's suburban perimeter, the need for current aerial imagery – ideally, high-resolution color orthophotography and related products suitable for large-scale urban mapping uses – continues to be a priority for many jurisdictions. These products have resulted in major financial gains for some jurisdictions when focused on targeted organizational business needs (for example, updated impervious fee structures resulting in increased revenue streams).

### 3. AUTHORITY

The Alliance is a governmental administrative agency formed pursuant to an Amended and Restated Interlocal Agreement Establishing eCityGov Alliance (Interlocal Agreement) and chapter 39.34 (Interlocal Cooperation Act) of the Revised Code of Washington (RCW), organized as a nonprofit corporation under chapter 24.06 RCW. Pursuant to the Interlocal Agreement, the Alliance has the responsibility for developing, owning, operating, and managing Alliance programs and services on behalf of its governing body and customers. Pursuant to chapter 39.34 RCW, the Alliance may enter into service agreements directly with any other public entity created and governed by the State of Washington, or any other public entity provided by any other State and Local laws governing public entities.

The Alliance is committed to put in place the Project structure and resources to assure a positive outcome for the Project. It has experience facilitating such collaborative efforts, including working relationships with the Participants, and the stakeholder support, to manage the Project professionally and in a fiscally-responsible fashion. It currently manages three technology products providing services to over 20 public entities within the State of Washington, who each pay fees to the Alliance for these services.

#### 4. DEFINITIONS

Capitalized terms not otherwise defined herein shall have the following meanings:

**A. 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.

**B. 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.

**C. PARTIAL PAYMENT**

Partial payment may be implemented if a Participant withdraws from the Project within the agreed upon timeframe as outlined below in item 11-A below. Additionally, partial payment may be utilized if a Vendor deliverable has not been completed/accepted according to the Agreement.

**D. PARTICIPANT**

Participants are local governments that would like to participate in the Project by executing this Agreement.

**E. PROJECT MANAGER or PM**

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

**F. SUPPLEMENTAL FEES**

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

**G. SUPPLEMENTAL PRODUCT**

Participants who request supplemental products such as topographic contours and impervious surface mapping that are not part of the Base Product are considered a Supplemental Product.

**H. 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).

**I. VENDOR FEES**

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

#### 5. ROLES AND RESPONSIBILITIES

The Alliance and the Participants hereby agree as follows:

#### **A. Alliance**

The Alliance agrees to serve as fiscal, administrative, coordinating and contracting agency on the Project through completion, estimated to be through January 31, 2024. The Project involves engaging multiple parties/Vendors including the following:

- i. An aerial mapping vendor/vendor team (Vendor) to utilize industry best practices and technology solutions to develop products meeting Participants' business needs for the urban mapping environment. As part of this Vendor team, an experienced orthophotography coordinator will serve as a dedicated Project Manager to monitor all Project phases and communicate effectively with Alliance, Participants, and the Vendor team.
- ii. 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* for all participants as well as the contractor agreement with the Vendor.

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.

#### **B. Participant**

Participants are considered committed entities who have indicated interest, business need, and available budget to participate in the Project. Participants agree to the commitments and contingencies as outlined further below in section 10.

1. City of Bellevue
2. City of Bothell
3. City of Issaquah
4. City of Kenmore
5. City of Kirkland
6. City of Mercer Island
7. City of Newcastle
8. Northshore Utility District
9. City of Sammamish

In exchange for the services to be provided by the Alliance pursuant to this Agreement, each Participant agrees to budget for and pay the fees outlined in section 9.

#### **6. OVERSIGHT AND ADMINISTRATION**

The Alliance will conduct the Project as contracting agent, coordinator, and overall manager. The Project theme of *collaboration* is emphasized as a key ingredient in progressing satisfactorily through the various Project tasks and achieving a successful outcome. Accordingly, the Alliance will develop a Project plan and timeline that will serve as the blueprint for all Project activities.

Except for those items described in Section 10 below, Alliance regards the Project as a relatively straightforward and mostly routine technology initiative following well-defined technical specifications and aerial mapping industry best practices.

The Alliance shall select a Vendor to perform and deliver Project deliverables as an independent entity from the Alliance or the Participants, working diligently to ensure timely completion and deliver of high-quality

deliverables within the specified timeline and budget. Tasks to be performed by the Vendor are substantially defined in Attachment 1 to this Agreement. 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 in the performance of any services for the Alliance.

The Alliance shall manage a Project Manager (PM) on the Vendor team to work diligently to ensure timely completion and delivery of high-quality deliverables within the specified timeline and budget. Tasks include but are not limited to communicating project status and other related information among all Participants and the Vendor, attending participant/project/vendor meetings, updating the project schedule as needed, and presenting project status reports. The PM shall act as an independent consultant and not as the employee, agent, or representative of the Alliance in the performance of any services for the Alliance. The PM is expected to oversee an effective execution of Project tasks and activities, including regular interaction with both the Participants and the Vendor team.

## **7. EFFECTIVE DATE AND TERM**

This Agreement shall be effective as of the signature date of the Alliance represented at the end of this Agreement (Effective Date) and may be executed from time to time by a Participant desiring services from the Alliance relating to the Project. A Participant may continue receiving services under this Agreement until such Participant has notified the Alliance in writing that its Project deliverables have been received, reviewed, and accepted, and that the Alliance has satisfactorily completed financial transactions between itself and the Participant, and between itself and the Vendor. The end date of this contract, and therefore Agreements with the above Participants, is expected to be no later than January 31, 2024, subject to potential extension of this date should the majority of Participants and/or the Alliance elect to defer flight(s) in accordance with Section 11.B herein.

## **8. DELIVERABLES**

This Project is intended to provide an expedient data set to multiple entities who have identified business needs for current aerial mapping products, but who may lack resources to accomplish such an effort independently. A collaborative effort offers various tangible and intangible benefits, not the least of which is shared costs. This includes Project administrative and Project management costs, but most notably reduced costs where Participant project areas overlap. In this situation, the deliverable project costs are reduced, at an individual mapping unit level, for each Participant to  $1/n$ , where  $n$  is the number of overlapping map areas.

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. The orthophotography will cover each Participant's indicated area of interest in its entirety. Some Participants have expressed an interest in supplemental products such as topographic contours and impervious surface mapping. These needs will be accommodated as secondary priorities within the overall project scope, with the color orthophotography being the primary deliverable. Supplemental products are to be invoiced to the requesting Participant as those deliverables are completed.

All data requested and paid for within a Participant's area of interest will be provided to each Participant as the main deliverable, including both base product and supplemental product data. Each Participant will own full legal title to such deliverables paid for and received pursuant to this Agreement. If a Participant 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.

## **9. FINANCIAL TERMS AND PAYMENT PROCESS**

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 will be shared by the Participants and be of three types:

- A. Vendor fees. Alliance will distribute a Project pricing spreadsheet to all Participants 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, with Participant totals varying depending on the extent to which Participant areas of interest overlap. In the case of overlapping areas among Participants, the cost for an overlapping map area will be split among the overlapping Participants.
- B. Administrative fees. Alliance will also include an administrative fee for each Participant as part of the total costs to Participants as shown in Attachment 2. These amounts are based on costs incurred by Alliance to pay for the contracted PM 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.
- C. Supplemental fees. Participants requesting supplementary mapping products such as topographic contours and impervious surface mapping will be invoiced as those deliverables on a request per Participant basis. 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.

Alliance will invoice Participants for progress payments using the following milestones/schedule.

- 1. Flight preparation (target April 31, 2023) – 50%
- 2. Orthophotography final acceptance (target October 31, 2023) – 50%
- 3. Supplemental GIS work final acceptance (target October 31, 2023) – 100%

NOTE: 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 45 days of invoice collection in preparation for payment to the vendor closer to the actual deliverable dates.

Since Vendor payment by Alliance is contingent on Participant payment to Alliance, prompt payment of each of these invoice cycles is required, in no case more than 45 calendar days from invoice receipt by Participant. It is each Participant's responsibility to conduct deliverable reviews and acceptance within these time constraints so that Alliance can process Vendor payments as quickly as possible.

## 10. COMMITMENTS

In signing this Agreement, each Participant commits to the following.

- A. The Project scope of work and technical specifications as shown in Attachment 1.
- B. Each Participant's fees as shown in Attachment 2.
- C. The addition of new Participants to the Project by the execution, from time to time, of additional Participants to this Agreement; provided, however, any such addition shall be agreed to by the Vendor and shall not adversely impact the Project schedule.
- D. Commitment to complete the Project, including full payment for services/products received, except for the contingency described in Section 11.
- E. Assignment of 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.

## 11. CONTINGENCY

In the event that a suitable leaf-off weather window (February 1 – April 1) is unavailable, each Participant will be asked to indicate to the Alliance its preference to one of the following:

- A. Terminate its participation in this Agreement (with partial payment of Vendor flight mobilization fees and Alliance expenses), OR
- B. Defer the flight either until:
  - i. The next suitable weather window, but no later than July 1, 2023, or
  - ii. Spring 2024 (with partial payment of vendor flight mobilization fees and Alliance expenses); OR
- C. Cancel the Project (with partial payment of vendor flight mobilization fees and Alliance expenses).

The Alliance shall review Participant responses and proceed based on the preference of a majority of the Participants; provided, however, in the absence of a majority vote, the Alliance shall, in its own discretion, determine a suitable contingency plan in the best interest of the Alliance and the Project.

## 12. AMENDMENT, MODIFICATION AND TERMINATION

- A. Amendment or Modification. The parties to this Agreement may amend or modify this Agreement, in whole or in part, by mutual agreement. Any amendment or modification shall be signed by all Participants and Alliance hereto.
- B. Termination for Convenience. If a Participant elects to terminate its participation in this Agreement due as a convenience for the Participant's need, it may do so by submitting written notice as described in Section 14. Participants who chose to terminate their participation in the Project are responsible for partial payment, which includes Vendor and Administrative fees. The remaining fees for the remaining Participants will be recalculated by Alliance and presented to the remaining Participants.
- C. Termination by Mutual Agreement. The parties may terminate this Agreement, in whole or in part, at any time, by mutual agreement. In this case any already incurred costs will be invoiced to the terminating Participant and the remaining fees for the remaining Participants will be recalculated by the Alliance and presented to the remaining Participants.

## 13. DISPUTE RESOLUTION

The general approach to this Project is a supportive collaboration of cost-sharing among its Participants. The first step for resolving any disputes will be for Participants to work together to resolve the dispute through discussion and negotiation among the Participants.

In the event of a dispute between Participants that cannot be resolved by the Participants, the Alliance Executive Director will serve as the mediator and resolve those disputes where feasible and appropriate. Alliance reserves the right to decide on the outcome of any dispute among Participants that pertains to the specifics of this Agreement, but is not a legal matter among Participants, in which case parties should follow their appropriate legal processes and remedies set by their respective entities.

Any dispute between Participants that is not resolved by the Alliance Executive Director, or any dispute between Participants and Alliance, or any decision by Alliance that needs elevation to a higher authority will be referred to the Alliance Executive Board. The Alliance Executive Board reserves the right to decide on the outcome of any dispute among Participants that could not be resolved by the Alliance Executive Director or is a dispute with the Alliance Executive Director, but is not a legal matter among Participants and the Alliance, in which case parties should follow their appropriate legal processes and remedies set by their respective entities.

Any dispute not able to be resolved by the Alliance Executive Board will be referred to public entity mediation or any appropriate legal processes and remedies set by the parties' respective entities.

#### **14. NOTIFICATIONS**

Any notices to be given under Section 12 of this shall be in writing and shall be delivered electronically via email, and by physical mail addressed to:

eCityGov Alliance  
Attention: Executive Director  
PO Box 90012  
Bellevue, WA 98009-9012  
[info@ecitygov.net](mailto:info@ecitygov.net)

Other notices to be given under this Agreement may be given electronically.

#### **15. 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.

#### **16. APPLICABLE LAWS**

The parties hereto shall comply with all federal, state and local laws, rules, regulations and ordinances applicable to the performance of this Agreement.

#### **17. HOLD HARMLESS AND INDEMNIFICATION**

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 parties, 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. 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 parties 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.

#### **18. NO PRECLUSION OF ACTIVITIES OR PROJECTS**

Nothing herein shall preclude any party from choosing or agreeing to fund or implement any work activities or projects associated with any of the purposes hereunder by separate agreement or action, provided that any such decision or agreement shall not impose any funding, participation or other obligation of any kind on the other Participants.

#### **19. ENTIRETY OF COMPLETE AGREEMENT**

This Agreement supersedes all prior negotiations, representations and agreements between the Participants to the subject matter hereof and constitutes the entire agreement between the parties hereto.

## 20. COUNTERPARTS

This Agreement may be executed by facsimile or electronic mail in any number of current parts and signature pages hereof with the same effect as if all Participants had all signed the same document. All executed current parts shall be construed together, and shall, together with the text of this Agreement, constitute one and the same instrument.

## 21. MAINTENANCE OF RECORDS

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 service(s) described herein. These records shall be subject to inspection, review or audit by personnel from any party hereto, other personnel duly authorized by any party hereto, 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. 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 Participants 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.

## 22. PUBLIC INFORMATION

All parties to this Agreement acknowledge that they are subject to chapter 42.56 RCW, the Public Records Act and related public information requirements.

## 23. MISCELLANEOUS

- A. *Equal Opportunity.* No party to this Agreement shall discriminate against any person based on any ground prohibited under federal, state or local law including race, creed, color, religion, national origin, sex, age, marital status, sexual orientation, veterans and military 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 (chapter 49.60 RCW) or the Americans with Disabilities Act (42 USC 12110 et seq.).
- B. *Governing Law.* This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. If any dispute arises between the parties under any of the provisions of this Agreement, resolution of that dispute shall be available only through the jurisdiction, venue and rules of the King County Superior Court, King County, Washington.
- C. *Non-Waiver of Breach.* The failure of a party to insist upon strict performance of any provision of this Agreement or to exercise any right based upon a breach thereof or the acceptance of any performance during such breach shall not constitute a waiver of any right under this Agreement.
- D. *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.
- E. *Assignment.* The Parties shall not assign this Agreement or any interest, obligation or duty therein without the express written consent of the other Party.
- F. *Prior Acts.* All acts taken by the Parties hereto but prior to the effective date of this Agreement are hereby ratified and confirmed.

The Participants hereby agree to the foregoing Agreement, which shall be effective immediately upon full execution by the signatories listed on the following pages, including the Alliance, who will be the last signatory.



**ECITYGOV ALLIANCE:**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_

**PARTICIPANTS:**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Bellevue**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Bothell**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Issaquah**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Kenmore**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Kirkland**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Mercer Island**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Newcastle**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **Northshore Utility District**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_ Agency/City: **City of Sammamish**

**Attachment 1  
Scope of Work**

**2023 eCityGov Alliance Aerial Mapping Project**

**1. Introduction**

The 2023 eCityGov Alliance Aerial Mapping Project (“Project”) is a continuation and expansion of the 2022 eCityGov Alliance Aerial Mapping Project and will commence with the acquisition of high-quality, digital, 4-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 219 square miles in size and includes the agencies (“Participants”) shown in *Figure 1*, many of them with overlapping project areas.

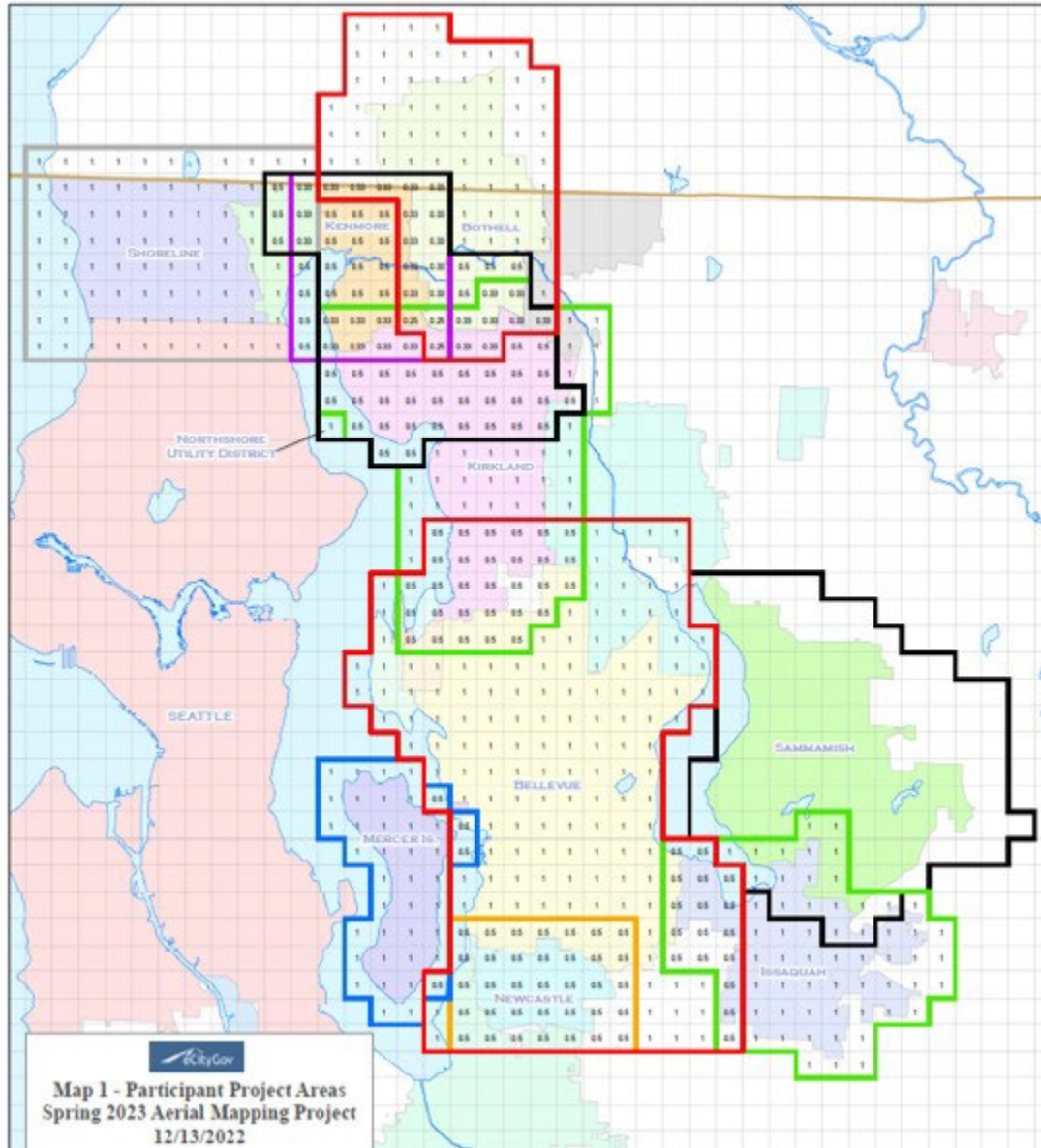
The Project will involve all photogrammetric processes necessary to create high quality color (RGB) orthophotography, as well as other aerial mapping products as identified. The Project scope will be described here as a sequence of tasks, each with deliverables and specifications. Effective project management 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.

*Table 1. Spring 2022 Eastside Aerial Mapping Project: Primary Deliverables*

<b>Item</b>	<b>Description</b>
Raw aerial imagery	4-band (RGB+IR), 32-bit, GeoTiff (georeferenced by nadir)
Orthophotography	4-band (RGB+IR), 32-bit, MrSID (1:20) and GeoTIFF (3,000'x3,000' tiles)
Supplementary products	Contours, impervious feature updates, mosaics, etc. (see Tasks 10-11)
Intermediate products	As noted in task descriptions

*Figure 1. 2023 eCityGov Alliance 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

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.

#### 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 (~ 219 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 and high-rise buildings 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 condition. 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 2024 (no flight plan required).

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

### 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 past Eastside projects, the 2016 PSLC regional lidar project, various WDOT projects that fall within the Project area, or other appropriate sources. 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.

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

The vendor will conduct the aerial imagery acquisition as set out in the Task 2 Flight Planning. The vendor will schedule and execute the aerial mission(s) per the approved plan, utilizing the first opportunity on or after March 1, 2023, 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.

## 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* (or equivalent) software and exported to 4-band (RGB+IR), 32-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.

## 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* or equivalent 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

Table 1. Project Accuracy

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*Z)	RMSE <sub>xy</sub>	RMSE <sub>z</sub>
0.25	0.50	1.00	1.96	0.25	0.50

## 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.

## 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).

## 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. The goal is to quickly delineate a reasonably complete overview of areas of impervious feature change. The vendor's price quotation assumes approximately 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 quote and the available budget.

## 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 or equivalent 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: 4-band (RGB+IR), 32-bit ortho tiles in GeoTIFF and SID/SDW format; seamlines in Geodatabase format; and a QC Report.

## **11. Task 10 – Contour Production**

Updated 2-foot contours will be provided as an option for those Participants desiring this deliverable, within contour project extents (roughly, city limits of Kenmore, Bothell, and Sammamish). 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 requesting this product 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.

## 12. Task 11 – Impervious Feature Mapping

This task involves creating new or updated impervious features within *impervious* project extents. 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.

## 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.

#### **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.

### 15. Approximate Project Schedule

VENDOR SCHEDULE		
Task or Deliverable	Description	Estimated Schedule
1	Project Planning/Ramp-up	1/6 - 1/20/2023
2	Flight Planning	1/30 - 2/10/2023
3	Survey Control Plan	1/30 - 2/10/2023
4	Imagery Collection	3/13 - 4/16/2023
5	Imagery Review	4/17 - 4/28/2023
6	Aerial Triangulation (AT)	4/25 - 5/31/2023
7	Pilot Test (submission for review)	6/9/2023
8	Ortho DEM Update	6/1 - 6/30/2023
	Delivery of Preliminary Orthos	6/30/2023
8a	Impervious Change Review	6/15 - 7/15/2023
9	Orthophoto Production	6/6 - 8/31/2023
	Delivery of Orthos for Participant Review	8/1 - 8/31/2023
	Submission of Final Orthos	10/14/2023
10	Contour Production	7/31 - 8/31/2023
	Contour Delivery for Review	8/15 - 8/31/2023
11	Impervious Feature Mapping	7/31 - 8/31/2023
	Impervious Delivery for Review	8/15 - 8/31/2023
12	Deliverables Review and Acceptance	9/1 - 9/30/2023
	Close of Participant Ortho Review	9/1/2023
	Close of Participant Contour Review	9/29/2023
	Close of Participant Impervious Review	9/30/2023
13	Project Closeout	11/30/2023

## Attachment 2

### 2023 Aerial Mapping Project

Updated by December 5, 2022

		ORTHO TILES / AGENCY - 11/2022										Base Ortho Photography	Alliance Admin Fees	Contracted PM Fees	Total Admin Fees	Grand Total
	Cost/tile*	Tiles/agency	1.00 tiles / cost		.5 tiles / cost		.33 tiles / cost		.25 tiles / cost		784					
2022 "old" cost	198.25			198.25		99.13		66.08		49.56	784					
2023 "new" cost	208.00			208.00		104		69.33		52						
AGENCY												AGENCY				
Bellevue		223	137	\$ 28,496.00	86	\$ 8,944.00		\$ -		\$ -	\$ 37,440.00	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 40,728.24	Bellevue
Bothell		88	60	\$ 11,895.00	4	\$ 396.50	21	\$ 1,387.75	3	\$ 148.69	\$ 13,827.94	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 17,116.18	Bothell
Issaquah		74	57	\$ 11,856.00	17	\$ 1,768.00		\$ -		\$ -	\$ 13,624.00	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 16,912.24	Issaquah
Kenmore		42		\$ -	16	\$ 1,664.00	23	\$ 1,594.67	3	\$ 156.00	\$ 3,414.67	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 6,702.91	Kenmore
Kirkland		109	30	\$ 5,947.50	61	\$ 6,046.63	15	\$ 991.25	3	\$ 148.69	\$ 13,134.06	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 16,422.30	Kirkland
Mercer Island		40	36	\$ 7,488.00	4	\$ 416.00		\$ -		\$ -	\$ 7,904.00	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 11,192.24	Mercer Island
Newcastle		35		\$ -	35	\$ 3,640.00		\$ -		\$ -	\$ 3,640.00	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 6,928.24	Newcastle
Northshore Utility District		85	1	\$ 198.25	50	\$ 4,956.25	31	\$ 2,048.58	3	\$ 148.69	\$ 7,351.77	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 10,640.01	Northshore Utility District
Sammamish				\$ -		\$ -		\$ -		\$ -	\$ -	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 3,288.24	Sammamish
Shoreline		88	78	\$ 16,224.00	7	\$ 728.00	3	\$ 208.00		\$ -	\$ 17,160.00	\$ 2,353.24	\$ 935.00	\$ 3,288.24	\$ 20,448.24	Shoreline
<b>Total:</b>		<b>784</b>	399		280		93		12		\$ 117,496.44	\$ 23,532.40	\$ 9,350.00	\$ 32,882.40	\$ 150,378.84	

## 2023 Aerial Mapping Project Other Fees Detail

Updated by November 4, 2022

Hours	Rate*	Amount	Postion(s)
80	95.27	\$ 7,621.60	Senior Finance Analyst: Responsible for billing, accounts payable, budget monitoring, etc.
120	132.59	\$ 15,910.80	Executive Director: Execute and manage project agreement, vendor contracts, overall project, etc.
		<b>\$ 23,532.40</b>	<b>Administrative Total**</b>

\*Rates reflect a cost recovery model that includes salary, benefits and overhead consistent with Federal OMB A-87.

\*\*No Alliance administrative fees are taxed

Hours	Rate	Amount	Postion(s)
110	85	\$ 9,350.00	Contracted Project Manager - ESTIMATE NOT FINAL



## 2023 Aerial Mapping Project Supplemental Costs

Updated

Agency	Topo	Impervious	Contours	Other	TOTAL Supplemental Cost	Milestone 1 50%	Milestone 2 50%
Bellevue					TBD		
Bothell					TBD		
Issaquah					TBD		
Kenmore					TBD		
Kirkland					TBD		
Mercer Island					TBD		
Newcastle					TBD		
Northshore Utility District					TBD		
Sammamish					TBD		
Shoreline					TBD		
Total					TBD	#VALUE!	#VALUE!

Grand Total Base Orthophotography #REF!  
 Grand Total Aerial Mapping Project Budget #VALUE!  
**Grand TOTAL #REF!**