

### Request for Proposals – Aerial Imagery & Aerial Mapping Services

February 7, 2024

### I. Introduction

The City of Port Townsend, Washington ("City") is seeking a qualified vendor to perform photogrammetric services. The City intends to contract with the successful respondent ("Vendor") to finalize a project plan, including delivery schedule, in preparation for a March 2024 aerial mapping project. The project area includes Port Townsend and adjoining areas totaling approximately 19.4 square miles.

# II. Submittal Requirements

Request for Proposal must include the following information:

- A. A cover letter / statement of interest indicating your firm's interest in offering these services and highlighting its qualifications to perform the work.
- B. A minimum of three references relating to the services being requested with full name, title, address, phone, and email addresses.

# III. Project Manager / Communications

All Vendor communications up to the point of Vendor selections are to be directed in writing to the Project Manager listed below. Any oral communications will be considered unofficial and non-binding on the City.

Project Manager: Tyler Johnson

Address: City of Port Townsend

250 Madison Street, Suite 2R Port Townsend, WA 98368

tjohnson@cityofpt.us



### IV. <u>Proposal</u>

- A. Cover Letter: The cover letter must be signed by an individual legally authorized to bind the submitter to both its proposal and proposed pricing. The cover letter must contain the following information:
  - 1. Name, title, address, email address, and telephone number of the person (or persons) to contact who is authorized to represent the firm and to whom correspondence should be directed.
  - 2. The submitter's federal and state taxpayer identification number
- B. Proposal Summary: Summarize your proposal and your firm's qualifications to do this work.
- C. Technical Approach: Address in detail the methodology you will use to meet or exceed the technical specifications of this project as described in the scope of work.
- D. Project Completion Schedule: Provide a schedule or a timeline for completion of the various phases of this project.
- E. Other Information:
  - 1. Company Information
    - a) Company name, office address, contact person (name/title), contact information
    - b) Parent company name (if any), address, contact person (name/title), contact information
    - c) Person to contact in regard to the proposal (name/title), contact information
    - d) Subcontractors, if any; company name, office address, contact person (name/title), contact information
    - e) City of Port Townsend Business License (Required if Vendor is selected for the project)



- 2. Client References (please list up to five that have occurred in the last five years)
  - a) Client name, contact person, contact information
  - b) Name and/or description of project
  - c) Approximate budget
  - d) Approximate timeline

#### F. Proposed Pricing

Please provide a fixed fee total for all services included within this RFP's Scope of Work.

#### V. Scope of Work

This project involves all work and photogrammetric processes necessary to create high quality color orthophotography. The primary deliverable for this Project is:

Product	Extent	Format
Orthophotography (0.25' pixel	3,000' x 3,000' tiles	.TIFF, GeoTIFF, MrSID
resolution; 8 bit color		

#### A. Task 1 – Project Planning

In this task, the Vendor will attend a kickoff meeting with the City to review the Vendor project plan. At this juncture it is expected that the contracted scope of work will be detailed and complete. This meeting is 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 City Project Manager, Vendor Project Manager, and City staff will review:

- Accuracy Requirements
- Project Area Map
- Survey Control
- Imagery Acquisition
- Imagery Quality Parameters
- Schedule
- Budget and Invoicing



- Communication Plan
- Remaining Questions or Issues

#### B. Task 2 – Flight Planning

In this task, the Vendor will develop a flight plan for collecting digital imagery for this project. The optimal leaf-free flight window in the Puget Sound area is very short due to sun angle and unpredictable spring weather conditions. The flight planning task is a critical project milestone in that the Vendor must commit aircraft, equipment, and staff resources to a data collection window that is uncertain at best. The selected Vendor must commit to perform the aerial mission in its entirety at the first opportunity after **March 18**, **2024** that meets the required aerial photography mission requirements.

The scope of work is the acquisition of aerial imagery suitable for production of high-resolution color orthophotography for the project area. The project extent is approximately 19.4 square miles and subject to minimal changes prior to beginning this task. The full extent of the Project area including water areas and applicable overlaps must be collected. The City will provide a shapefile delineating the areal extents for the Vendor's use in Project planning.

The Vendor flight plan should address:

- Project area flight line and premarking requirements
- Coverage to the full extent of Project area tiles regardless of land/water boundary
- Sensor make and model with current USGS certification
- Type of aircraft, camera mount, and airborne GPS configuration
- Use of airborne GPS with ground control stations
- Image overlap including treatment at project edge
- Use of NAD83 (2011) horizontal datum, NAVD88 vertical datum, and U.S.
  Survey Foot mapping units
- Timeline identifying critical path tasks such as premarking
- Quality assurance/quality control procedures to be used in imagery collection
- 0.25'-pixel color orthophotography at 1:480 (1" 40') mapping scale
- Specific Vendor-City communication protocol
- Contingency options for weather, aircraft, and/or equipment issues



#### C. Task 3 – Survey Control Plan

In this task, the Vendor will develop a survey control plan. The City will provide existing survey data, which the Vendor will review and recommend the amount and distribution of supplementary horizontal and vertical ground control required to meet the project's requirements. It is the Vendor's responsibility to verify both the existence and suitability of existing ground control. The Vendor will then determine which of the existing control monuments can be utilized as ground control, select locations for additional ground control that will be needed (if any), and establish additional control points.

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

In this task, the Vendor will conduct the aerial imagery collection mission as set out in Task 2, Flight Plan. The Vendor will schedule and execute the aerial mission(s) per the plan, utilizing the first opportunity after March 15, 2024 that meets the basic aerial imagery requirements (satisfactory weather, sun angle, etc.). Imagery must not be collected when the ground is obscured by haze, snow, smoke, dust, or other environmental factors that may hide ground detail. Clouds and/or shadows of clouds shall not appear in the imagery to minimize ground object shadows, the sun angle/altitude will not be less than 40 degrees above the horizon when the imagery is collected.

The Vendor will gather extra aerial imagery utilizing additional overlap to minimize feature "lean".

### E. Task 5 – Imagery Review

As flight(s) are completed and aerial imagery is available, Vendor will proceed to review the imagery including those spot exposures covering areas of elevated structures, in accordance with the agreed upon specifications. The imagery must 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 reflights 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 this to, and obtain concurrence from, the City before proceeding. Of particular importance are any quality issues pertaining to



radiometry, geometry, cleanliness, image coverage, file naming, and usability for analytical aerotriangulation (AAT) as well as orthophotography production. Rework will be identified and scheduled as necessary. The City expects that the imagery collection task will be substantially complete before AAT begins.

### F. Task 6 – Aerotriangulation

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 Project Manager on the task outcome, including the incidence of errant, discarded, or anomalous network points, and the resolution of these gaps. The mapping specifications to be used in this and all subsequent production are:

### Datumns/Units

NAD83 (2011) – Horizontal Datum NAVD88 – Vertical Datum U.S. Survey Feet

### Projection/Coordinate System

Washington State Coordinates (North Zone)

### G. Task 7 – Orthophoto Production

In this task, the final orthophotography production will be completed, including all rectification, mosaicking, graphic editing, and clipping of final tiles.

The City is seeking as orthophoto deliverables only 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, 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 City expects that the selected Vendor will propose, implement, and achieve a uniformly high standard of orthophoto quality on this Project. The City will work closely with the selected Vendor at the beginning of the Project to establish clear product acceptance criteria.



#### H. Task 8 – Deliverable Review/Acceptance

This task extends throughout the Project and involves the systematic quality checking by City staff of all Vendor deliverables; the notification by the Project Manager of product shortcomings, if any; the timely reworking/redelivery of rejected Vendor deliverables, as necessary; and the final City acceptance of each deliverable. In light of the project timeline, the City's Vendor selection process will place special emphasis on 1) Vendors' demonstrated ability to meet project schedules, and 2) superior Vendor product quality. Vendor deliverables are of three types and will be reviewed/accepted as follows:

- 1. <u>Meetings, plan documents, communications:</u> These are typical of any major project and are primarily for progress tracking and overall project documentation purposes. The Project Manager will review these promptly, notify and distribute to Project Team participants, contact the Vendor Project Manager as necessary for clarifications or corrections, accept, and archive.
- 2. <u>Interim data products:</u> 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 AAT solution/report, and mosaic seam lines. The City requires these as project deliverables for its internal QC efforts, as well as for potential use in future work. The Project Manager along with a photogrammetric industry expert will review these promptly, notify and distribute to Project participants, contact the Vendor Project Manager as necessary for clarifications or corrections, accept on behalf of the City, and archive.
- 3. <u>Final data products:</u> These include the items noted in the Scope of Work Table at the beginning of this section. The following is the acceptance criteria:



- a) Deliverables will undergo a random (spot) check, and if this review reveals 10% or more incidences of defects, the products will without further review be returned to the Vendor.
- b) Deliverables passing the spot check will undergo a thorough check, and if this review reveals 10% or more incidences of defects, the products will without further review be returned to the Vendor for correction. The Project Manager and City staff may reduce the amount of quality checks if the overall quality of deliverables appears to be high.

#### I. Additional Information

- 1. The City of Port Townsend does not have existing DTM or LIDAR to be used to rectify the orthophotos.
- 2. The City's most recent ortho imagery is from 2017 and it has three inch pixel resolution

# VI. <u>Proposal Response Date and Location</u>

Proposals must be received at the City of Port Townsend by the date and time shown below.

Date: Thursday, February 22, 2024

Time: 3:00pm PDT

Proposals may be submitted as a PDF to  $\underline{tjohnson@cityofpt.us}$ . It is the responsibility of the proposer to confirm that the proposal was received. The City will endeavor to send an email to verify the receipt of the proposal within 24 hours. Proposers may also call Tyler Johnson at 360-390 – 4062 to confirm receipt of their email.

Sealed paper proposals are to be addressed to:

City of Port Townsend Office of the City Clerk



250 Madison Street, Suite 2 Port Townsend, WA 93868

All proposals and accompanying documentation will become the property of the City and will not be returned. Faxed proposals will not be accepted. Vendors accept all risks of late delivery, regardless of fault.

# VII. Required Number of Proposals

The City prefers electronic submission of proposals – for example, as an attachment to an email. Firms wishing to submit paper copies should package and clearly label one original and three copies to the address above.

# VIII. Evaluation Criteria

Vendor selection criteria are given below. When evaluating for the selection criteria the emphasis will be on the quality of the deliverables and timeliness, with pricing a far less important factor.

Evaluation Criteria	Possible Points
Responsiveness / Completeness of Proposal (i.e., was each required	10
section completed and everything included that was required by the	
RFP)	
<b>Experience / Qualifications</b> (i.e., Vendor's experience working within	40
the requested services arena; Vendor's experience working with local	
government; Vendor's ability to meet the production schedule;	
Vendor's ability to successfully complete the scope of services on	
time and on budget; Vendor's ability to successfully work with client	
staff; Vender's proven success in recent projects)	
<b>Technical Approach and Scope of Services</b> (i.e., does the Vendor	40
understand what it will take to successfully achieve the goals and	
objectives of the requested services; does the Vendor understand	
the City's quality and timeline expectations; merit of proposed	
technical approach)	
Pricing	10
Total Points Possible	100



### IX. Vendor Presentation and/or Committee Interview

After the proposals are evaluated, the Selection Committee will determine whether formal presentations and interviews are necessary, and if so, which Vendors may be invited to make a formal presentation and/or participate in a panel interview with the Selection Committee. The City may choose not to require formal presentations or interviews. The City may choose to contact officials from other jurisdictions regarding the Vendor, their prior work experience and their ability to successfully complete the scope of services. The City may request clarification or additional information from a specific Vendor in order to assist in the City's evaluation of a proposal. Finally, the City may require changes in the scope of services as deemed necessary by the City, before execution of the Contract.

# X. Contract Award and Execution

The City reserves the right to make an award without further discussion of the proposal submitted. Therefore, the proposal should be initially submitted on the most favorable terms the Vendor can offer.

The City shall not be bound or in any way obligated until both parties have executed the City's Contract.

The Vendor selected as the apparently successful Vendor will be expected to enter into a contract with the City. The existing City Professional Services Agreement is included as an attachment to this RFP. Please review contract language prior to submitting a proposal. This document is for informational purposes only and is not part of the submittal requirements.

The general conditions and specifications of this RFP and the successful Vendor's response, as amended by Contract between the City and the successful Vendor, including e-mail or written correspondence relative to the RFP, will become part of the Contract documents. Either party may propose additional Contract terms and conditions during negotiation of the final Contract.

If the selected Vendor fails to sign the Contract within five (5) business days of delivery of the final Contract, the City may elect to cancel the award and award the Contract to the next-highest ranked Vendor.

No cost is chargeable for any Vendor activity that occurs prior to the Contract execution date.



# XI. <u>Enclosed</u>

- A. Attachment A: Geodetic Control and Monumentation Plan 1997.pdf (Existing ground control)
- B. Attachment B: CityofPortTownsendAerialBoundary.zip (Shapefile of the project area)
- C. Attachment C: Grid.dwg
- D. Attachment D: Sample of the City of Port Townsend Professional Services Agreement