

SUBJECT: Award of proposal number 26-052P to NV5 Geospatial Inc. for the contract amount of \$499,974.28 for Aerial Imagery Acquisition three-year cycle for 2026-2028.

AGENDA OF: October 7, 2025

ASSEMBLY ACTION:

AGENDA ACTION REQUESTED: Present to the Assembly for consideration.

Route To:	Signature
Purchasing Director	X Rustin Krafft Signed by: Rustin Krafft
Information Technology Director	X Leah Jones Signed by: Leah Jones
Finance Director	X Lyndsey Brisard Signed by: Lyndsey Brisard
Borough Attorney	X Nicholas Spiropoulos Signed by: Nicholas Spiropoulos
Borough Manager	X Michael Brown Signed by: Mike Brown
Borough Clerk	X Brenda J. Henry for Signed by: Brenda Henry

ATTACHMENT (S) : Analysis Sheet (1p)
Scope of Services (6p)

SUMMARY STATEMENT: On August 25, 2025, the Matanuska-Susitna Borough Purchasing Division issued a solicitation requesting proposals from qualified firms to collect approximately 3,000 square miles of aerial imagery over a three-year period. The first year they will collect 1,007 square miles of 9-inch resolution around the Parks Highway and 22 square-miles area with a 6-inch resolution in Talkeetna and Willow. The second year they will collect 1,209 square miles with 401 square miles of the core being 6-inch resolution. The third year they will collect 401 square-miles of the core as 6-inch resolution and 464 square miles around Skwentna being 9-inch resolution. These services will support the Geographic Information Systems Division in all assembly districts.

In response to the advertisement, three proposals were received. A proposal evaluation team made up of Borough Information Technology staff evaluated the proposals and selected NV5 Geospatial Inc. as the most advantageous firm for the Borough.

The Initial term length agreement period covers year 1 of collection. The period of performance can be extended for two additional one-year periods (for years 2 and 3 of collection), only by the mutual written agreement from both parties. Subject to annual appropriation of funds by the Borough Assembly.

In accordance with MSB 3.08.170(B), Administration requests authority to modify the resulting contract completion date by 90 days for unforeseen circumstances.

The Information Technology Department will be administering the contract.

RECOMMENDATION OF ADMINISTRATION: Approve the subject action memorandum.

MATANUSKA-SUSITNA BOROUGH

FISCAL NOTE

Agenda Date: October 7, 2025

SUBJECT: Award of bid number 26-052P to NV5 Geospatial, Inc. for the contract amount of \$499,974.28 to for Aerial Imagery Acquisition 2026-2028.

FISCAL ACTION (TO BE COMPLETED BY FINANCE)	FISCAL IMPACT YES NO
AMOUNT REQUESTED \$499,974.28	FUNDING SOURCE Misc. Capital Projects
FROM ACCOUNT # 480.000.000 4xx.xxx	PROJECT# 47519
TO ACCOUNT :	PROJECT #
VERIFIED BY: <div style="display: flex; justify-content: space-between;"> <u>X</u> L i e s e l Z a n t o 9 / 2 4 / 2 0 2 5 </div> <div style="font-size: small; margin-top: 5px;">S i g n e d B y : L i e s e l Z a n t o</div>	CERTIFIED BY:
DATE:	DATE:

EXPENDITURES/REVENUES:

(Thousands of Dollars)

OPERATING	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Personnel Services						
Travel						
Contractual						
Supplies						
Equipment						
Land/Structures						
Grants, Claims						
Miscellaneous						
TOTAL OPERATING						

CAPITAL		499.9				
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REVENUE						
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FUNDING:

(Thousands of Dollars)

General Fund						
State/Federal Funds						
Other		499.9				
TOTAL		499.9				

POSITIONS:

Full-Time						
Part-Time						
Temporary						

ANALYSIS: (Attach a separate page if necessary)

PREPARED BY: _____ PHONE: _____

DEPARTMENT: _____ DATE: _____

X

APPROVED BY: _____ DATE: _____

SCOPE OF SERVICES

26-052P, AERIAL IMAGERY ACQUISITION 2026-2028

AERIAL IMAGERY PROGRAM OVERVIEW

The Matanuska-Susitna Borough has a recurring aerial imagery program that collects Aerial Imagery using recurrent three-year contracts. During each three-year cycle, the Borough aims to collect approximately 3,000 square miles of imagery, roughly 1,000 square miles per year. The first year of this project will collect Area 1 on the attached map, 1007 square-miles of 9-inch resolution around the parks highway with 22 square-miles of 6 inch in Talkeetna and Willow. The second year will collect 1209 square miles with a 401 square miles of the core being 6-inch resolution. The third year will collect the 6-inch resolution 401 square-mile core area and the 9-inch resolution imagery of 464 square-miles around Skwentna.

PROJECT OVERVIEW & PROJECT DELIVERABLES

This solicitation is focused on the Aerial Imagery Program's three-year cycle for 2026-2028.

Table 1 provides an overview of the areas of Interest and project deliverables. A shapefile, provided by the Borough as part of this solicitation packet, provides exact project boundaries.

For this project, each area shall be flown, processed, and delivered during the year indicated in Table 1. Square-miles listed are approximate and may shrink or expand slightly (within a few square-miles).

Table 1

Year	Region (<i>General Description</i>)	Size	Imagery Type & Pixel Resolution
2026	Area 1 – Parks Highway Corridor	1,007 square miles	4-band orthoimagery (RGB-NIR) 6-in pixel resolution (or less) for 22 square miles 9-in pixel resolution (or less) for 1,007 square miles
2027	Area 2 – Core Area, Point MacKenzie, Glenn Highway Corridor, Knik Glacier	1,209 square miles	9-inch pixel resolution 4-band orthoimagery (RGB-NIR) for 808 square miles 6-in pixel resolution (or less) for 401 square miles
2028	Area 3 – Core Area, Skwentna	865 square miles	9-inch pixel resolution 4-band orthoimagery (RGB-NIR) for 464 square miles 6-in pixel resolution (or less) for 401 square miles

PROJECT SCOPE

Digital Orthoimagery Specifications

All delivered digital orthoimagery shall meet or exceed the specifications outlined in USGS' Digital Orthoimagery Base Specification V1.0, Chapter 5, Section B, Book 11, 2014, except for the following changes and clarifications (*page numbers reference the USGS spec*):

- *Geographic Extent (pg. 1-2)*- The tiling schema will be based on the Borough's tax map grid.
- *Use and Distribution Rights (pg. 2)* - All imagery and data delivered shall be free from restrictions regarding use and distribution. Data and documentation provided as part of this acquisition shall be freely distributable in the public domain.
- *Acquisition and Processing (pg. 2)*- Acquisitions shall be digital images, not film.
- *Acquisitions Conditions, Acceptable Window (pg. 2; #1)*- Imagery shall be collected in the spring, during a period of time that meets the other acquisitions requirement needs.
- *Acquisitions Conditions, Vegetation Conditions (pg. 2; #6)*- Imagery shall be leaf-off.
- *Acquisitions Conditions, Tide Coordination (pg. 2; #7)*-Tide phases below mean sea level in coastal and tidally influenced areas.
- *Acquisitions Conditions, Image Coverage (pg. 2; #8)*- It is understood that the tile schema and zone boundaries may not align perfectly; as a result, partial tiles are acceptable if a portion of the tile falls outside of a zone boundary. The vendor and Borough project manager will determine a plan for how to deal with the no-data portions of the tiles so those areas can be displayed as transparent without affecting other valid data pixel values.
- *Acquisitions Conditions (pg. 2)*- As outlined in the USGS specification and this SOW, the imagery shall ideally be leaf-off, ground snow-free (with some high elevation leniency), lakes ice-free, and tide below mean sea level. If conflicts arise, these factors should be prioritized as follows: #1 - Leaf-off; #2 – Snow-free; #3 – Ice-free; #4 -Tide below mean sea level. Furthermore, upper canopy leaf-off is a higher priority than lower canopy leaf-off. If the need for prioritizing acquisition conditions arises, the Borough project manager should be contacted immediately for discussion and approval of a prioritization plan.
- *Aero triangulation (pg. 3)*- Standards for aerial triangulation shall meet or exceed the standards outlined in sections 7.7 and 7.8 on page AS of the ASPRS Positional Accuracy Standards for Digital Geospatial Data Edition L Ver. 1, Nov 2014.
- *Datums and Coordinates (pg. 3)*- *NAD 83*; Alaska State Plane Zone 4 Feet; NAVD88 shall be used. The Borough will provide the projection file that should be used so that our mapping system correctly recognizes the information.
- *Digital Orthorectified Image Color (pg. 4)*- Imagery shall be 4-band (RGB-NIR).
- *Spatial Resolution (pg. 4)*-The ground pixel resolution shall meet or exceed the resolutions identified in the provided shapefile.
- *Horizontal Accuracy (pg. 4)*- Horizontal accuracy shall meet or exceed the Standard High Accuracy class outlined in the USACE Photogrammetric and UDAR Mapping, EM 1110-1-1000, April 2015 manual, found in Chapter 3, page 3-7, Table 3-5. A portion of the table can be seen in Table 2. Computed accuracy shall meet or exceed the 95 percent National Standard for Spatial Data Accuracy (NSSDA) Confidence Interval.

Table 2

6 inch	≤6	≤1-pixel	Highest accuracy
	12	2-pixels	Standard high accuracy
	≥18	≥3-pixels	Lower accuracy-visualization
9 inch	≤9	≤1-pixel	Highest accuracy
	18	2-pixels	Standard high accuracy
	≥27	≥3-pixels	Lower accuracy-visualization
12 inch	≤12	≤1-pixel	Highest accuracy
	24	2-pixels	Standard high accuracy
	≥36	≥3-pixels	Lower accuracy-visualization

Table 3

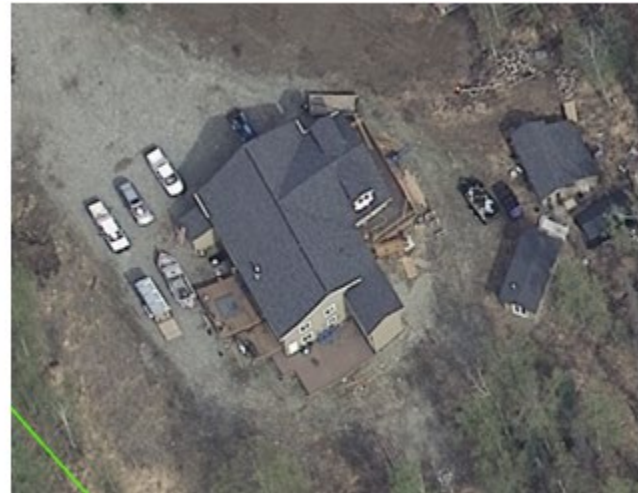
Project Area (Square Kilometers)	Horizontal Accuracy Testing of Orthoimagery and Planimetrics
	Total Number of Static 2D/3D Check Points (clearly defined points)
500	20
501-750	25
751-1000	30
1001-1250	35
1251-1500	40
1501-1750	45
1751-2000	50
2001-2250	55
2251-2500	60

- *Photo Check Points (pg. 4 & 5)*- The number of check points shall meet or exceed those outlined in the USACE Photogrammetric and UDAR Mapping, EM 1110-1-1000, April 2015 manual. Chapter 3, page 3-13, Table 3-12. A portion of the table can be seen in Table 3.
- *Digital Orthorectified Image Format (pg. 4)*- The Borough will not consider a loss-less compression.
- *Edge Matching (pg. 5)*- The maximum allowable mis-join between transportation features or other well-defined linear features is two (2) product Ground Sample Distance (GSD) pixels.
- *File Naming Convention (pg. 5)*-The Borough will supply the file naming convention.
- *Quality Assessment and Testing (pg. 7)*- All quality control items listed on page 7 of the USGS Digital Orthoimagery Base Specification V1.0 shall be checked by the vendor prior to delivery. A report outlining the process and results of those checks shall be delivered with the data. Once the data is delivered to the MSB, a secondary check will be coordinated and performed by MSB staff. The vendor will be asked to correct any tiles that do not meet the specifications outlined in the scope of work.
- The orthoimagery will have no visible seams through buildings.
- **The following additional specification must also be met: Flight overlap- At a bare minimum, the images shall be acquired with 60% along-track overlap, and 30% sidelap. Tall objects (such as tall buildings, towers, and trees) shall have minimal tilt. It is expected that overlap will be above the listed minimum, which created the unacceptable examples below. 80/60 front and side lap, with a large-format camera, has rectified these issues in the past. The borough does not dictate methods and means, nor does it prescribe the amount of overlap needed to deliver the acceptable imagery; this is up to the contractor. Please include in your bid a flight plan that will prevent the final products from having significantly tilted features. Review examples of acceptable and unacceptable building lean of the same structures on the following pages.**

Acceptable



Unacceptable



Unacceptable:



Acceptable:



PROJECT SCHEDULE:

Responses to this solicitation should include a proposed timeline that includes project meetings with Borough staff (*see the Project Management section below for more detail*), key acquisition and post-processing steps, and deliverable dates.

Regarding the deliverable dates, Imagery shall be delivered within 6 weeks of collection flights. Processing of lower elevation data should not wait for the collection of higher elevation data (which can often push into June or July due to snow conditions, particularly in higher elevation and northern areas). The Borough will review the data based on the specifications outlined in this scope of work and respond with any correction requests within a reasonable time frame. The vendor shall make corrections and redeliver within 4 weeks. The Borough will perform a second review and accept the data if the identified errors have been adequately corrected.

PROJECT MANAGEMENT:

The selected vendor is responsible for the following project management items:

- *Permits* - The vendor shall be responsible for applying for and obtaining any required permit for access, overflight, or intrusion into restricted or otherwise limited ground access and/or airspace.
- *Project Status Reports & Meetings* - The vendor shall provide weekly written project status reports. The vendor shall coordinate face-to-face or teleconference meeting(s) for the following:
 - 1 hour project kickoff and closeout meetings (one each),
 - 1/2-hour project update meetings, including the vendor project manager and Borough project manager, as needed or requested by either PM.
 - 1 hour project overview meetings, including the vendor project manager, Borough project manager, and project sponsor (GIS Manager) (two per collection year).
- *Preliminary Data Review Coordination* - After data collection but prior to full data delivery, the Borough project manager shall be provided access to preliminary data for review. The selected vendor and the Borough project manager can determine the simplest method for achieving this objective.



26-052P Aerial Imagery Acquisition 2026-2028

Scoring Summary

	Total	Objectives and Services	Relevant Project Experience	Proposed Project Staff	Methods	Management	Cost
Supplier	/ 100 pts	/ 14 pts	/ 12 pts	/ 10 pts	/ 8 pts	/ 6 pts	/ 50 pts
NV5 Geospatial, Inc	60.94 pts	10.27 pts	10.4 pts	8.667 pts	5.867 pts	4.4 pts	21.34 pts (\$499,974.28)
Aero Geometrics Ltd.	60.93 pts	1.867 pts	4 pts	2 pts	2.667 pts	0.4 pts	50 pts (\$213,360.00)
Aeroquest Mapcon Ltd	46.87 pts	7.467 pts	6.4 pts	5.333 pts	4.267 pts	3.6 pts	19.8 pts (\$538,671.00)