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TO: County Board of Commissioners

FROM: Brian J. Anderson, Goodhue County Auditor/Treasurer
Lavon Vieths-Augustine, Goodhue County Assessor

SUBJECT: EagleView Aerial Pictometry

DATE: January 17, 2023

Background

In an effort to retain employees by being more flexible and productive when viewing properties within the Assessing Department, staff is proposing to purchase aerial technology that would allow this happen. After much consideration, staff would like to purchase EagleView aerial pictometry which is a high-resolution imagery software that allows governmental agencies to use 3D photography (obliques), something the County currently doesn't have access to, from the convenience of their office, home, or remotely. Once purchased, EagleView can then be used by all departments within the County including law enforcement, 9-1-1, engineering, public works, and planning along with other outside agencies such as city police and fire departments, etc. at no additional charge.

In addition, staff would like to purchase licenses to use Multiple Listing Service (MLS). MLSs are private databases that are created, maintained and paid for by real estate professionals to help their clients buy and sell property. Purchasing these licenses would allow staff to verify sales with detailed information, something required by the MN Department of Revenue, much quicker with fewer time-consuming phone calls to the buyer or seller.

In order to be included in the Spring 2023 flyover, staff is seeking County Board direction and approval to enter into an agreement with EagleView so they can schedule and perform their flyover which involves over 130 planes throughout the State of Minnesota alone. Should the Board approve for the County to enter into an agreement for EagleView, staff would execute that agreement and then work through the Minnesota Counties Computer Co-op that we are currently a member.

The following information outlines some of the technical aspects of EagleView aerial imagery along with the numerous applications that the departments utilize and the proposal, cost and recommendation.

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Discussion

EagleView Aerial Imagery:

EagleView is a technology provider of aerial imagery, data analytics and geographic information system mapping that uses algorithms to infer size, shape, pitch and area of topography and structures. Imagery is assessable from any office or remote site with the data management supported by the County's GIS Department, which currently manages Dodge County's EagleView data. This allows the software to be extremely versatile and allows other departments including the public safety response teams to assess and plan time-sensitive strategies in disaster or non-disaster scenarios.

EagleView delivers three-dimensional models that provides a remarkable sense of realism for any project. Derived from pictometry high-resolution oblique intelligent images, EagleView 3D models are a must-have for any project requiring precise communication and understanding. EagleView offers aerial pictometry in 6-inch, 3-inch or extremely clear 1-inch GSD, which equates to 15-30 images/ft². GSD stands for ground sample distance, which is a metric that is useful for photogrammetry and measurements in aerial and mapping surveying projects. All aerial photography by EagleView is taken in 6-inch but higher density areas can be upgraded to 3-inch for higher resolution and accuracy.



A hybrid flyover can be purchased, which is what staff is recommending, where all agricultural land and smaller cities is taken in 6-inch GSD but Redwing, Cannon Falls, and Zumbrota would be upgraded to 3-inch GSD. Most counties our size have flyovers taken every two years, which is what we are recommending, while Olmsted County has theirs taken annually given their rapid growth.



EagleView can actually help reduce expenses by allowing the Assessing Department staff to be more productive and efficient at their daily tasks by reducing unnecessary driving and vehicle usage, the ability to view more properties in a day, be safer reviewing certain properties, and can address resident phone calls more proactively with fewer callbacks. EagleView will integrate with our new Tyler CAMA software that will be implemented in the fall of 2023 including other software packages such as arc GIS, E9-1-1 CAD systems and Autodesk. In addition, EagleView will fly over any tornado stricken area with an F4 or higher rating. The County can also request an immediate flyover if there are other natural disasters such as an F3 tornado or flooding and have data within 36-48 hours. MNCCC

Applications for Goodhue County:

There are over 76 counties in Minnesota currently using EagleView, and thousands of other agencies throughout the United States. Goodhue County would have virtually an unlimited number of user accesses, which allows for multiple people throughout all the departments and other governing jurisdictions to utilize the data for the following benefits:

Assessing Department:

- Save time and fuel costs with fewer field inspections, particularly for rural or hard-to-access properties.
- Preview properties for additions, new construction and permits prior to a field visit.
- Measure square footage, area, heights, lengths, widths, distances, angles and elevations of buildings, properties and roads.
- Conduct formal and informal appeals.

Engineering & Public Works:

- Important data from GIS and other sources to assess location of roads, bridges, ditches, and other infrastructure points.
- Calculate acreage or square footage.
- Review properties for planning right-of-way and easements.

Planning and Land Use:

- Measure angles, area, distance, height and width of any structure or property.
- View parcels from multiple directions to identify modifications to properties not recognizable from traditional street-view photos or orthogonal images.
- Examine environmentally sensitive areas.

Property ChangeFinder:

Property ChangeFinder identifies and chronicles property changes, such as new construction, additions and demolition. Without leaving the desk, assessment, appraisal and disaster response professionals can:

- Reduce costly and time-insensitive site inspections.
- Validate information.
- Locate property changes.



Law Enforcement:

- Identify staging and surveillance areas.
- Plan searches, raids and seizures.
- Develop preemptive and concurrent tactical plans.
- Obtain pictorial references for court presentations and search warrant applications.
- Perform immediate disaster flyovers.

9-1-1:

- Quickly view a location using a Lat/Lon coordinate or physical address.
- Provide remote guidance on location of electrical wires and other obstacles.
- View alternate traffic routes to incidents.



Proposal and Recommendation

EagleView Aerial Imagery:

Staff is recommending that Goodhue County enter into an agreement with EagleView to have them flyover every two years beginning in Spring 2023, which would allow two pictures and change comparisons per quintile (every five years). The proposed cost of this would be **\$110,000** but it would be split between the two years for the first two years. The staff would then recommend the next flyover be in 2025 but we would upgrade for the ChangeFinder for a total cost of \$133,000 or \$66,500 per year. In addition, we would work with other departments in 2023 and allow them access to utilize EagleView in the meantime.

Multiple Listing Service:

Staff is recommending that Goodhue County purchase rights to six MLS Affiliated Memberships at an annual cost of \$2,745.

Revenue Source:

The Finance Department is recommending that the funding source for both EagleView and MLS in 2023 totaling approximately **\$57,745** would be the use of Unallocated Fund Balance Ratio which is approximately 56.5%. As you may recall, the Assessing Department has had numerous vacancies in 2022 and, therefore, did not fully spend their operating budget. Those funds are then carried over into the County's 2023 Unallocated Fund Balance (UFB). As a best practice, instead of carrying forward operating funds as we do with capital funds, staff is recommending that the operating funds simply transfer in as UFB and then be used from there at the Board's approval. In 2024 the line item would be placed in the Assessing Department's operating budget to cover all future expenses.