



Legislation Text

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**TO:** Mayor Richard C. Irvin

**FROM:** Tim Shields, GIS Manager  
Jeff Anderson, Deputy Chief Information Officer  
Michael Pegues, Chief Information Officer

**DATE:** September 5, 2023

**SUBJECT:**

A Resolution authorizing the Director of Purchasing to purchase an Indoor Mapping Solution and associated work from Motivf Corporation, Alexandria, VA for a total award of \$161,101.00 with a 10% contingency.

**PURPOSE:**

The City of Aurora seeks to build a virtual representation of City buildings ("Digital Twin") through accurate mapping and modeling of the buildings and assets contained within the buildings.

**BACKGROUND:**

The City's building infrastructure is no longer well-represented by original blueprints. City Hall, for example, has had multiple additions made over the last 70+ years, and there is no cohesive, accurate map of the building as it stands today. Additionally, across City buildings, there are numerous instances of walls removed or installed, doors added or removed, among other alterations that were not documented in formal architectural drawings. City staff seeks to create updated floorplans buildings and begin to catalog the assets contained within the buildings.

**DISCUSSION:**

The City of Aurora is looking to enhance its mapping capabilities and increase its asset catalog by mapping out the layout and assets contained within buildings throughout the city. The Indoor Mapping Solution will allow the City to capture, store, and maintain data associated with buildings and assets in one central system for use by multiple City departments. Indoor mapping was one of the main needs identified in the Geospatial Strategy for the City.

A Geospatial Strategy is a business-oriented plan that defines how an organization will use GIS to achieve its goals and desired outcomes. The plan includes considerations of people, process, and technology needed to meet goals and overcome challenges.

City staff engaged Marketplace.city to perform the RFQ/RFP process. The process sequence is below.

Process Sequence:

- Created Market Landscape with 10+ potential companies.
- Drafted RFQ document based on the needs of the Information Technology, Public Facilities, and Aurora Police Departments.
- Based on the market landscape and City Stakeholder review, publicly posted and distributed the Opportunity and Scope Document for vendors to complete in order to be included in the reporting and selection process.
- RFP was posted and distributed on 11/18/22 and closed 12/13/22.
- There were 8 responses completed by the deadline
- Project leaders selected a subset of 5 vendors to review a demonstration of their solution. Four responded to be included in these meetings.
- Post-demonstrations, these four vendors were sent follow-up questions on their scanning methodology, the level of detail provided with their mapping systems, and how they can integrate Genetec Security Camera assets into their Digital Twins
- Lastly, the four vendors received customized pricing templates to complete and return to. These documents provided a direct apples-to-apples comparison of the many options provided by these firms
- Project stakeholders submitted final scoring based on the cumulation of this data on 6/27/23.

#### Decision Factors

- Full Indoor Mapping Capabilities: This partnership will provide a streamlined path to modernizing Aurora's municipal building inventory and management. Motivf provides prompt imaging services and will return flexible, high-quality Digital Twin products back to City stakeholders.
- Public Sector Experience: Motivf has conducted imaging work for a broad list of federal, military, and municipal clients, such as the City of Dublin, Ohio, and Roanoke, Virginia.
- Asset Linkage: Genetec security camera integration is a critical component of this project, and Motivf offers an effective, low-cost means of folding these pre-existing assets into their deliverables, boosting their value and usefulness to the City.
- Project Phasing: Motivf has shown flexibility to engage in a phased rollout of City imaging - starting with the 28 High Priority properties in Phase 1, while locking in an ongoing cost-per-square-foot as it applies to future inventory. It is anticipated that the data capture and 25% of the creation of the Digital Twin will be completed in 2023, with the remaining 75% of Digital Twin creation occurring in 2024.
- Pricing: Beyond providing the most competitive cost-per-square-foot and Phase 1 total as compared to the three other finalists, Motivf deliverables can be viewed, stored, and manipulated within existing Aurora software, such as ESRI. Other solutions required separate proprietary software licenses, inflating cost.

A budget transfer will be required to be completed to account # 101-1284-419-38.11 to fund this purchase.

**IMPACT STATEMENT:**

The Motivf Corporation Indoor Mapping Solution and associated work will allow the City of Aurora to efficiently collect updated facility and asset information for buildings. This solution will enhance work efficiency, increase situational awareness, and provide asset management for multiple city departments, including Aurora Fire Department, Aurora Police Department as well as Public Facilities.

**RECOMMENDATIONS:**

That the proposed resolution be adopted.

cc: Finance Committee



CITY OF AURORA, ILLINOIS

RESOLUTION NO. \_\_\_\_\_  
DATE OF PASSAGE \_\_\_\_\_

A Resolution authorizing the Director of Purchasing to purchase an Indoor Mapping Solution and associated work from Motivf Corporation, Alexandria, VA for a total award of \$161,101.00 with a 10% contingency.

WHEREAS, the City of Aurora has a population of more than 25,000 persons and is, therefore, a home rule unit under subsection (a) of Section 6 of Article VII of the Illinois Constitution of 1970; and

WHEREAS, subject to said Section, a home rule unit may exercise any power and perform any function pertaining to its government and affairs for the protection of the public health, safety, morals, and welfare; and

WHEREAS, the City of Aurora seeks to build a virtual representation of City buildings ("Digital Twin") through accurate mapping and modeling of the buildings and assets contained within the buildings ; and

WHEREAS, an RFP was published and responses received December 2022; and

WHEREAS, the Motivf Corporation solution provided the most effective capabilities for the City of Aurora; and

WHEREAS, a budget transfer will be completed to account # 101-1284-419-38.11 to fund this purchase;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Aurora, Illinois, as follows: the Director of Purchasing is authorized to purchase an Indoor Mapping Solution and associated work from Motivf Corporation, Alexandria, VA for a total award of \$161,101.00 with a 10% contingency.