



MEMORANDUM

Missouri Department of Transportation

St. Louis District

TO: Eric Schroeter
State Design Engineer

I do hereby attest that in accordance with the requirements of 23 CFR 635.411(c), the use of this patented or proprietary item is in the public interest.

CC: Jim Smith - de
Alex Wassman – ts

State Design Engineer

FROM: Jeanne M. Olubogun
District Traffic Engineer – St. Louis Metro District

DATE: April 8, 2016

SUBJECT: District ITS Maintenance
J6Q2344F, J6Q3000F
Public Interest Finding Request
Image Sensing Systems Remote Traffic Microwave Sensors

We request approval of a proprietary item certification to use Image Sensing Systems Side radar Detectors for the following project(s):

J6Q2344F & J6Q3000F for upkeep of the St Louis District ITS (Intelligent Transportation System) system

These projects fund ITS replacement equipment. The deployments of these devices are replacements to the existing installations, not an expansion to the system. The projects include the purchasing of replacement freeway Image Sensing System side radar detectors; a significant component of the St Louis District's ITS system, controlled by the ATMS (Advanced Transportation Management System) software.

Image Sensing Systems, Inc. Equipment – Remote Traffic Microwave Sensors

Our current microwave sensor model deployed is Image Sensing Systems devices. Considering the installation, integration, and maintenance expenses and risks associated with using non- Image Sensing Systems devices, the St. Louis District respectfully requests to use Image Sensing Systems devices listed below. We have performed a thorough evaluation of other devices. That evaluation is discussed further in this document.

- Image Sensing Systems Remote Traffic Microwave Sensors

Existing Image Sensing System, Inc. Deployment

Currently, the above referenced Image Sensing System, Inc. equipment is being utilized across the St. Louis District at 402 locations. These devices are used to gather data, such as traffic volumes and speeds. The data is also used to determine travel time on 112 existing DMS (Dynamic Message Sign). The RTMS (Remote Traffic Microwave Sensor) measures the distance to objects in the path of its microwave beam. This ranging capability allows it to detect moving and stationary vehicles in multiple detection zones.

Integration with Current System

Providing continuity of data used to report travel times and evaluate the region's mobility, it is requested that Image Sensing System, Inc. equipment be used to further develop the traffic data inflow for the entire St. Louis District. Image Sensing Systems Remote Traffic Microwave Sensors are currently integrated with the existing ATMS software to provide travel times and destinations on DMS boards.

Discussion of Alternatives

Research of potential alternatives indicates that amongst devices other than Image Sensing System, Inc. equipment, there is not a singular system that reasonably meets the current needs and requirements of the St. Louis District ITS system. There are industry standard radar detection units that would meet specifications, but would require substantial integration with existing ATMS software. This would require additional resources of staff and budget to complete this deployment and integration within a reasonable timeframe. It would also require an increase in staff training for deployment of a new vendor's product and on-going maintenance. Other vendor's products may have interoperability issues when administering protocol that may be proprietary to Image Sensing System, Inc. found elsewhere on St. Louis District ITS network. Reconfiguring the current system to allow for a 3rd party vendor protocol to be interoperable would require a significant undertaking and is not recommended.

In conclusion, if another vendor's product is deployed in our network, the cost to procure, integrate, and maintain the RTMS equipment is expected to be significantly more than the Image Sensing System, Inc. products proposed above. Therefore, it is recommended that Image Sensing System, Inc. equipment be used for the expansion of the ITS system. We are seeking approval to move forward with this equipment.

Please feel free to contact me at (314)275-1536 if you have any questions. We appreciate your assistance on this matter.

Approved by:

In accordance with 23 CFR 635.411(c), I concur that it is in the public interest to use the specified patented or proprietary item.

FHWA Representative

Date