KINGSPORT
REGIONAL ITS ARCHITECTURE UPDATE
REVIEW MEETING MINUTES

MEETING DATE: January 24, 2017

MEETING TIME: 1:30 PM – 3:30 PM

MEETING LOCATION: The Improvement Building, Kingsport, Tennessee

ATTENDEES:

- Bill Albright, Kingsport Metro Transportation Planning Organization (TPO)
- Chris Campbell, Kingsport Area Transit Service
- Julia Campbell, Tennessee Highway Patrol (THP)
- Troy Ebbert. Kingsport Metro TPO
- Preston Elliott, RPM Transportation
- Tim Elsea, City of Kingsport
- Eric Flora, Tennessee Department of Transportation (TDOT)
- Khuzaima Mahdi, TDOT

- Donny Necessary, Virginia Department of Transportation (VDOT)
- Chris Osborne, First Tennessee Rural Planning Organization
- Andy Padgett, TDOT
- Rashad Pinckney, TDOT
- Joe Roach, TDOT
- Michael Thompson, City of Kingsport
- Nathan Vatter, TDOT
- Terrance Hill, Kimley-Horn
- Tom Fowler, Kimley-Horn

SUBJECT: Kingsport Regional ITS Architecture Update – Stakeholder Review Workshop

INTRODUCTIONS

The purpose of the workshop was to review the draft Kingsport Regional Intelligent Transportation System (ITS) Architecture and Deployment Plan and to obtain input from stakeholders to assist with the preparation of the final draft of the document. The purpose of a regional ITS architecture update is to provide a vision and framework for the implementation and operation of ITS in a region as technologies, infrastructure, population, and land uses evolve. A regional ITS architecture is also necessary in order to meet the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) ITS Architecture conformity requirements for any ITS projects in a region that use federal transportation funds. Although updating the Regional ITS Architecture does not guarantee funding for a region, it does allow a region to be eligible for federal funding of ITS projects.

Kimley»Horn

Terrance Hill, with Kimley-Horn, welcomed everyone and thanked the stakeholders for their participation in the update of the Kingsport Regional ITS Architecture. Everyone in attendance then introduced themselves and identified the agency that they represented.

PROJECT OVERVIEW PRESENTATION

Terrance and Tom Fowler presented on the progress of the update to the Kingsport Regional ITS Architecture and Deployment Plan. Terrance briefly introduced key sections of the document and described their purpose. The first draft of the Regional ITS Architecture document was made available on January 19, 2017, and stakeholders were notified that they could access the document from the website below. All stakeholders were encouraged to review the document and submit questions or comments to either Terrance or Tom by February 8, 2017.

http://www.kimley-horn.com/projects/tennesseeITSarchitecture/kingsport.html

Terrance summarized key changes to the draft document compared to the previous version published in 2008 and led a discussion of those changes with stakeholders. The discussion included gathering comments from stakeholders regarding the draft document and working with the attendees to prioritize the new service packages included in the draft document.

Terrance then led a discussion of existing and planned ITS projects in the region. Stakeholders had the opportunity to ask questions and provide updated information on projects included in the draft document. Details of this discussion are outlined below.

Following the project discussion, Tom discussed with stakeholders the logistics for proper use and maintenance of the Kingsport Regional ITS Architecture and Deployment Plan. Tom presented on planning for operations outlined in the draft document, discussed systems engineering analyses (SEA) and how they relate to ITS architecture, reviewed conformance to the architecture that a project would need to demonstrate in order to be eligible for federal funding, and outlined the timeframe for future updates to the Kingsport Regional ITS Architecture and Deployment Plan.

STAKEHOLDER DISCUSSION

As noted, Terrance led a discussion to identify any new projects that have been deployed or planned in the Region since the completion of the Kingsport Regional ITS Architecture in 2008. The following is a summary of ITS deployments and projects identified by the stakeholders in attendance at the workshop:

TDOT

- TDOT discussed thresholds for the deployment of the HELP vehicles along Interstate 81 and Interstate 26, and that these two interstates do not meet those thresholds within the Kingsport Region. The TPO noted that I-26 from Virginia to Johnson City is a section of highway that would benefit significantly from the use of TDOT HELP trucks due to the large number of commuters.
- The Protect the Queue Program, which utilizes trucks with signs to warn approaching motorists of stopped vehicles ahead, has been implemented throughout TDOT Region 1 for incidents and construction.

Kimley»Horn

- TDOT is also utilizing smart work zone equipment on some of its larger projects. Although there are currently no projects in the Kingsport Region that utilize smart work zone technology, TDOT may elect to do so on future projects. Additionally, the University of Memphis is conducting research on the effectiveness of smart work zones to reduce crashes and protect the lives of workers. It was mentioned that an approximate 30% reduction in the number of crashes has been realized with the implementation of smart work zone equipment.
- The Tennessee Highway Patrol dispatch recently moved into the Region 1 TMC to improve communication during events and incidents. There have been initial challenges, but coordination is improving.
- TDOT has begun using drone technology for bridge inspections and is considering other ways to utilize this technology. One possible use could be to attach a camera to a drone to serve as a portable CCTV camera to capture video of roadway conditions in locations where there are no fixed CCTV cameras. Additionally, drones could be used to help establish preferred heights and locations for fixed cameras before they are erected.

VDOT

- VDOT would like dynamic message signs (DMS) installed along the US 23 / US 58 / US 421 corridor as motorists leave Gate City and approach the Wadlow Gap Road intersection to provide route decision information for commuters. The Wadlow Gap Road and US 23 intersection is an important decision point for commuters as both routes provide primary access from Virginia into Kingsport.
- All VDOT snow plows will have automatic vehicle location (AVL) systems that will allow the public to see their location as well as locations where the snow plows have already treated.
- VDOT is also exploring the possibility of deploying tethered drones on their Safety Service Patrol Vehicles to use as mobile CCTV cameras.

City of Kingsport

- The City hopes to continue expanding their fiber network and connect additional signals to the traffic operations center.
- Some public works vehicles have been outfitted with AVL systems and the City would like to continue to increase that number in the next couple of years.
- Kingsport would like the installation of DMS along I-26.

Kingsport Area Transit Service

- All buses now have AVL systems and can be tracked by the Kingsport Area Transit Service (KATS) dispatch. Additionally, KATS now utilizes bus stop messages boards to inform passengers of arrival times of buses.
- KATS is in the process of relocating its central transit center to a newly constructed building.
- KATS would like to implement a mobile phone application for passengers to not only use for real-time bus location information, but for the collection of fares as well.
- Automatic passenger counting is a technology that KATS would like to implement as counts are currently completed manually.

Other Comments

- TDOT mentioned that service packages for ramp queue detection and wrong way detection should be added to the architecture.
- The TPO mentioned that they would like to coordinate with TDOT, the City of Kingsport, Johnson City MTPO, and the City of Johnson City on future projects; especially those along I-26.
- For future updates to the architecture, stakeholders agreed that is would be beneficial to update the document in concert with or before the long range transportation plan. However; it was also agreed that major updates should occur on an as needed basis.

CONCLUDING COMMENTS AND NEXT STEPS

Terrance and Tom thanked everyone for their participation and encouraged stakeholders to review the draft document (particularly projects in the deployment plan and service package diagrams in appendix B related to their agency) and provide comments by **February 8, 2017**. Stakeholders were also encouraged to contact any of the project team members if they had any questions. Contact information is included below:

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