



TMC

TRAFFIC MANAGEMENT CENTER *NEWSLETTER*

January/February/March – 2017

1. 96th Transportation Research Bureau, January 8-12, 2017, Washington DC Convention Center

This meeting, which attracts thousands of transportation professionals each year, offers an unparalleled opportunity to share your knowledge and perspectives with others and to learn about the latest developments in transportation research, policy, and practice. The five day program includes 800 sessions and workshops on all aspects of transportation.



In addition to traditional areas of interest, this year's program had a special interest in connected vehicles and autonomous/self-driving vehicles. The program had several presentations from the U.S. DOT sponsored Smart Cities Challenge competition winners. Innovations in vehicle detection, traffic signal control and optimization, and connected vehicle work was also discussed in great detail.

Autonomous Vehicles/Connected Vehicles at TRB

Autonomous and connected vehicles and what transportation organizations need to know were hot topics at the TRB.

One program of note was from the National Operations Center of Excellence (NoCOE), leading the National Connected Vehicle **SPaT** Deployment challenge. This is a challenge to state and local public sector transportation infrastructure owners and operators to achieve deployment of DSRC (dedicated short range radio communications) 5.9 GHz infrastructure with SPaT broadcasts in at least one corridor or network (approximately 20 signalized intersections) in each of the 50 states by January 2020.

SPaT is a Signal Phase and Timing (SPaT) message that communicates the current intersection signal phases. The current state of all lanes at the intersection are provided, as well as any active pre-emption or priority.



DSRC communications with vehicles will enable agencies to collect basic location and speed information from vehicles. Then SPaT messages will be transmitted back into the vehicle to support safer and more efficient operation.



Vehicles would get:

- remaining green time information
- Pre-emption information
- Possibly red light violation warnings

Big Data and Smart Cities Discussions at TRB

Important components of smart cities presentations:

- Realization that Smart Cities is much more than transportation
- Smart Cities reach/serve all people especially minority disadvantaged
- Smart LED streetlights with built-in wi-fi help reach underserved communities
- Efficient public transportation is imperative



- Data (Big Data) unlocks Smart Cities vision
- Smart cities are those where data and technology improves people's lives
- Neighborhood level knowledge indexes are needed. Coordination with human services is imperative to help meet the needs of the typically underserved communities
- Do not cut off communities
- Mobility/ smart mobility/ reduce carbon footprint/ economic sustainability (growing jobs)
- Smart street lighting supports interactive neighborhoods
- Smart Cities do not concentrate on hard infrastructure



All of these comments need to be considered as the City of Virginia Beach develops its Smart Cities Master plan.

2. Bridge Crew Work, January 19, 2017

The bridge crew continues to do outstanding work throughout the city. Crew staff, led by Steve Davis and James Rodgers, replaced 300 feet of damaged rail on the Independence Boulevard Overpass at Northampton Boulevard.



Before photo at Independence Boulevard

Bridges staff routinely works 35 guardrail projects every year.

Installations typically total \$100,000 per year, which is at least 50% of a contracted installation or repair.



After photo at Independence Boulevard

Traffic Management Operations Division Response Information

Some of the vital statistics we addressed January thru March 2017

- 1. Number of Traffic Counts Completed – 85**
- 2. Number of Hits on the Traffic Data Database**
<http://vbgov.ms2soft.com>
 - 902 hits from January thru March 2017
 - 33,175 hits since program inception (July 2009)
- 3. Number of Utility Locate Tickets (Miss Utility) Received/Checked/Marked – 5081/581/379**
- 4. Number of Traffic Signal Preventive Maintenance Actions completed –160**
- 5. Number of Traffic Signal Work Orders Received – 625**
- 6. Number of Traffic Sign Work Orders Completed – 499**
- 7. Linear feet of Thermoplastic Applied to Roadway – 4,606**
- 8. Provided event support for the following Special Events**
 - a. Polar Plunge**
 - b. Shamrock Marathon 2017**
 - c. Faith Freedom Justice Rally**