

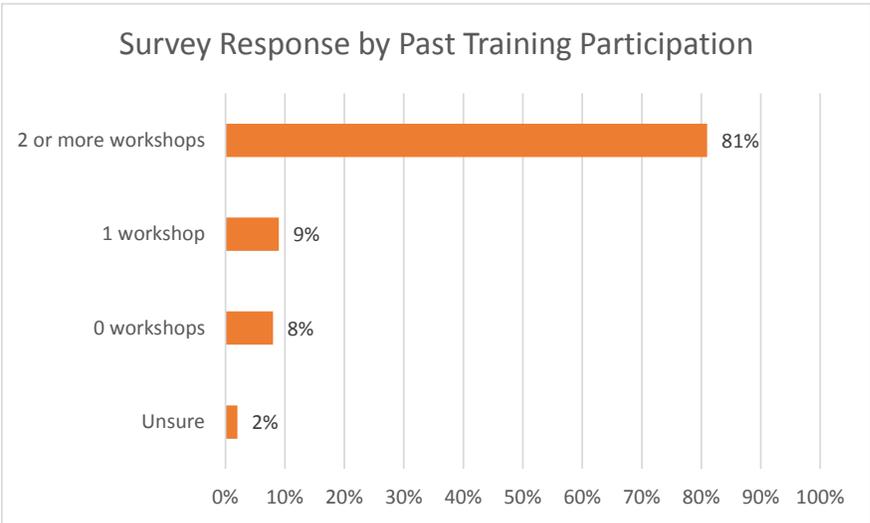
2018 Training Needs Assessment Survey

In October 2017 TTAP distributed a comprehensive training needs assessment online survey to more than 4,400 individuals in our contact database. One hundred and fifty-six individuals spent an average of 10 minutes to complete the 40-question survey, resulting in a total of 26 hours (1,560 minutes) of feedback.

Some important trends emerged from these results. The greatest number of responses came from employees of cities and counties (54%), followed by TDOT/FHWA (21%), and consultants (16%). An overwhelming majority of responses (92%) came from individuals with 10 or more years of professional experience. Additionally, 66 responses came from licensed Professional Engineers (PEs). 81% of respondents indicated that they have previously completed two or more TTAP continuing education workshops.

The survey addressed a wide range of questions related to current and future TTAP continuing education activities, including the participant's willingness to participate in online training. In general, survey respondents were willing to consider online training as either an alternative or a supplement to traditional classroom training. The most positive responses were recorded for scenarios where online training would reduce or eliminate the travel time required for classroom training, when online training is self-paced, and when online training provided background material while saving time in the classroom for the discussion of advanced topics.

In broader terms, 81% of participants preferred full-day workshops as the least-disruptive and most efficient way to participate in classroom training. Finally, participants indicated that their maximum acceptable travel time to participate in classroom training and other live events is directly proportional to the duration of the event.



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The views, opinions, and recommendations contained within this newsletter are those of the authors and do not necessarily reflect the views of FHWA and TDOT.

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From the Director

It's hard to believe that winter is gone. The ups and downs of winter appear to be continuing as East Tennesseans were greeted by snow and temperatures in the 30s on the first day of spring. The basketball Vols and Lady Vols had a good run this year, but unfortunately both teams were upset victims in the second round of the NCAA tournaments. It's back to football for UT fans, and it is also time for casual hockey fans to put the Nashville Predators back on the radar.

As I promised in our last issue, we have some detailed results to share from TTAP's 2018 Training Needs Assessment survey. The results tell us that our current training workshops hit your highest-priority topics, but we've also identified some areas where we can expand our program to meet your needs. We asked several questions to gauge your interest in online training. While I think that most of our instructors (myself included) prefer the immediate feedback and ease of conversation offered by traditional classroom training, we realize that some agencies and individuals may be unable to join us for a variety of reasons, including time constraints and travel restrictions. We are looking for a way to connect with more of you while still providing an opportunity for interaction with our instructors and your fellow students. You can find more results from our survey in the article on page 1.

Speaking of surveys, the Federal Highway Administration's Center for Local Aid Support (CLAS) recently completed its Local Agency Needs Assessment survey. This survey provided local agencies across the country with an opportunity to influence an update to the national Local Technical Assistance Program/Tribal Technical Assistance Program (LTAP/TTAP) Strategic Plan. This plan affects each center that is a part of the national LTAP/TTAP network which includes TTAP as Tennessee's LTAP center.

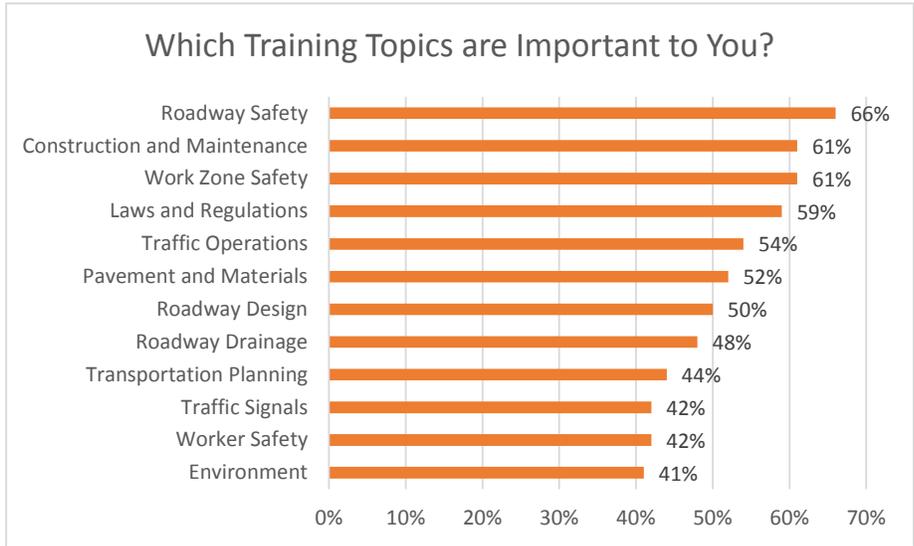
The details of the new strategic plan are still evolving, but we expect to see an increased emphasis on innovation for local agencies. You've already seen a form of innovation over the last several years through FHWA's Every Day Counts (EDC) program, but innovation can take many forms. As part of this increased LTAP/TTAP focus on innovation, the National LTAP Association (NLTAPA) has formed a new Innovation and Implementation Workgroup. I have the honor of serving as the workgroup's first chairperson, and I hope that this endeavor will allow me to bring even more useful information to you in the future.

I'm running out of space, so I'll wrap things up here. Hopefully the weather reports will soon match our expectations of mild temperatures, sunny days, and flowers in bloom. It wouldn't surprise me if we are complaining about the heat in the next issue, but that's how it goes. In the meantime, please let me know if there is anything that TTAP can do to help you.



Finally, we asked participants to identify their continuing education priorities by both technical categories and by individual workshop titles/subjects. Among the 17 unique categories presented in the survey, the top priorities were:

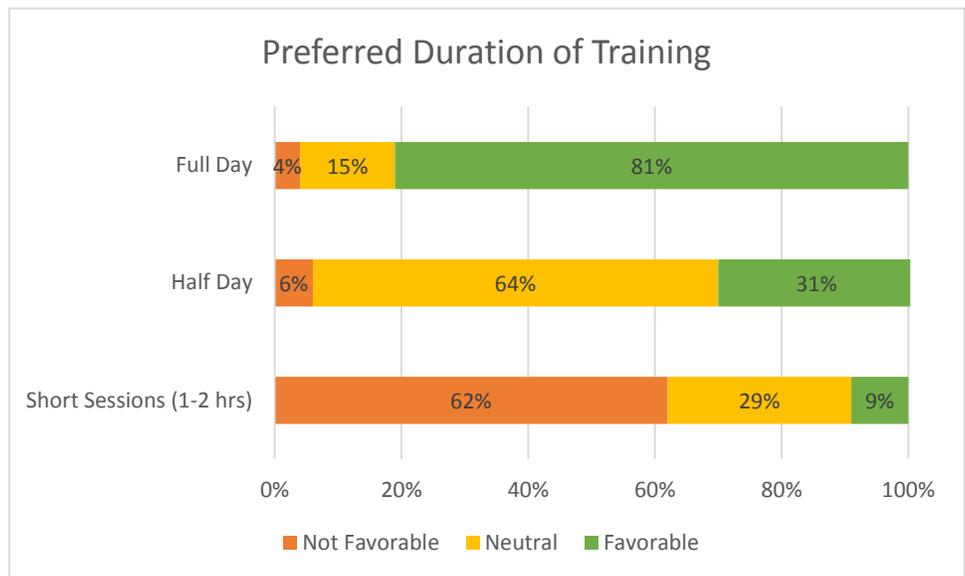
1. Roadway Safety
2. Work Zone Safety
3. Construction and Maintenance
4. Laws and Regulations
5. Traffic Operations.



Within each category,

participants were given the option to rate their interest in several workshop titles. Many of the titles presented in the survey represent existing TTAP workshops, but several new or advanced titles were added to gauge interest in these topics. New classes were identified by reviewing training offerings from other LTAP centers, the National Highway Institute, FHWA, and professional organizations. Response options to these individual workshop titles included “Not interested,” “Would probably take if offered,” and “Immediate Interest.” Ranked by the combination of “Would probably take if offered” and “Immediate Interest,” the top 15 titles are as follows:

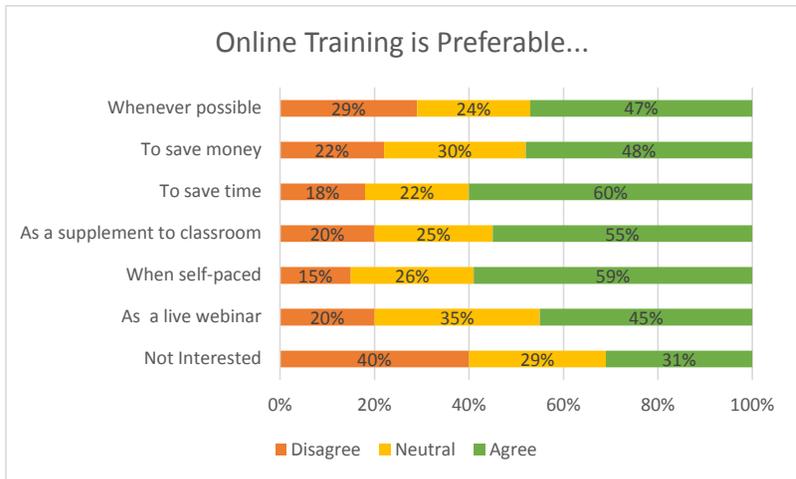
1. Traffic Calming
2. ADA Self Evaluations and Transition Plans
3. Roadside Safety Standards
4. Traffic Signs and Pavement Markings
5. Road Safety 365
6. Communicating with the Public*
7. Fundamentals of Traffic Control
8. Safety Treatments for Horizontal Curves*
9. Advanced Work Zone Traffic Control
10. Pavement Management Systems
11. New Work Zone Technologies*
12. MUTCD and Signalized Intersections
13. Basic Traffic Studies
14. Erosion Prevention and Sediment Control*
15. Asphalt Pavement Rehabilitation



continued on page 4

Four of these titles (indicated with an asterisk in the list on page 3) are new topics which have not been offered by TTAP as stand-alone topics. However, only one of the four (Communicating with the Public) represents a completely new subject that is not linked to previous TTAP training offerings.

A complete summary of results from the training survey can be found on the TTAP website at <http://ttap.utk.edu/survey/2018survey.pdf>. The results of this survey will be used to guide TTAP's training activities in 2018 and beyond. While we greatly appreciate the time that participants devoted to the survey, we realize that many of you may have missed the invitation to participate or simply did not have time to complete the survey. We still want to hear from you and we invite you to share your thoughts on training titles, format, location, duration, and more.



April 9-13, 2018 National Work Zone Awareness Week (NWZAW)

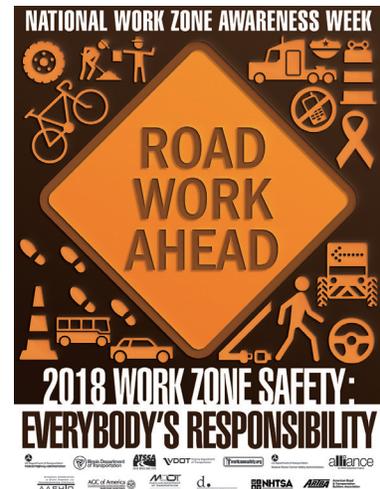
The 2018 National Work Zone Awareness Week (NWZAW) is April 9-13, and the theme is "Work Zone Safety: Everybody's Responsibility". This year, the Illinois Department of Transportation will be hosting the NWZAW national kick-off event. FHWA Leadership will be speaking at the NWZAW national kick-off event scheduled for Tuesday, April 10th in Illinois. The proposed location for the kick-off event is adjacent to the Jane Byrne Interchange Reconstruction Project in the Chicago metro area.

Local agencies may order posters free of charge by completing a poster request form available at: <https://www.workzonesafety.org/data-resources/public-awareness/posters/>.

For information regarding outreach strategies and tools to promote NWZAW visit:

FHWA Work Zone Management website: https://ops.fhwa.dot.gov/wz/outreach/wz_awareness.htm

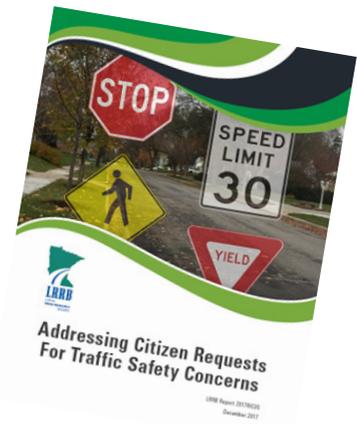
The National Work Zone Safety Information Clearinghouse website: <https://www.workzonesafety.org/>



Visit our website
ttap.utk.edu
 to find our
Work Zone Traffic Control/Flagging workshops
 near your location.

Addressing Citizen Requests for Traffic Safety Concerns

Edited by Airtion G. Kohls (Source: Local Road Research Board – Minnesota Department of Transportation)



Our 2017 TTAP Needs Assessment Survey pointed to “Communicating with the Public” as a workshop title of interest to our audience. Interestingly, I just received a TRB newsletter that included a new guidebook from the Minnesota Department of Transportation related to the topic.

Addressing Citizen Requests for Traffic Safety Concerns focuses on the importance of communication when responding to citizens. It provides local agency staff with a best practice approach to addressing traffic safety requests, as well as guidance on logging and following up on requests, standard responses and explanation of why a requested strategy may or may not be the appropriate solution. The document provides general guidance that can be modified to meet each agency’s needs.

Tips to create an open dialogue with citizens, tools to submit a request, tips on how to address social media and assigning a point person to collect all requests are a few of the initial guidance presented in the guidebook. For example, it points that social media pages are not intended or recommended for official agency business/traffic safety discussions. If a citizen posts a complaint about traffic safety related issues on social media, direct the person in charge of managing the social media account to respond to the comment by asking the citizen to contact the appropriate agency staff member and provide his or her contact information. This ultimately encourages a more civil discussion to address the issue than the citizen interacting with a faceless/nameless social media page.

Part 4 provides information about each of the most commonly requested traffic safety devices – stop signs, speed limit signs, crosswalks, warning signs, school speed zone, parking restriction signs and intersection control turn restriction signs. For each traffic safety device, a summary of general information, research on effectiveness, evaluation approach, thing to be aware of, and written and visual educational tools are provided. For example, the discussion of the effectiveness of stop signs include:

- Volumes: Depends on the makeup of traffic, number of stop signs, and the available adjacent routes. Stop signs generally do not result in a reduction of traffic.
- Speeds: Unlikely to reduce speeds, and depending on the saturation of stop signs, improperly installed signs can often lead to increases in speed between intersections to reduce lost time stopping at the stop sign.
- Safety: If installed in a location that does not warrant a stop sign or where motorists are likely to ignore the sign, the stop sign can lead to an increase in crashes due to driver behavior. If sight distance is poor due to a permanent installation blocking driver’s line of sight, stop signs can have a positive effect on safety.
- Operations: Can add unnecessary delay to the roadway network.



*Typically Requested Traffic Safety Devices – Stop Signs
Part 4 of the Addressing Citizen Request for Traffic Safety Concerns*

Part 6 includes 3 case studies and part 7 includes example letters and emails that can be used as a guide or template when communicating with citizens. While we work on the development of our “Communicating with the Public” workshop, please take a minute and explore this guidebook. For a free download go to: <http://www.dot.state.mn.us/research/reports/2017/2017RIC05.pdf>

Rectangular Rapid-Flashing Beacons (RRFBs) – New Interim Approval (IA-21) Issued

Edited by: Airton Kohls & Frank Brewer (Source: FHWA & MUTCD)

A **NEW** Interim Approval (IA-21) was issued for the use of Rectangular Rapid-Flashing Beacons (RRFBs) on March 20, 2018. The Federal Highway Administration (FHWA) has been informed and has confirmed that the patents issued and pending (that trigger IA-11 being rescinded in December 2017) have been expressly abandoned, and that the RRFB is once again eligible for provisional use through an Interim Approval. This Interim Approval (IA-21) has been updated to reflect more recent research and experience with the device. Agencies that previously had been approved to use RRFBs under IA-11 are not covered by this new Interim Approval to install new RRFBs. If agencies that had approval under IA-11 wish to continue to install new RRFBs, then they must submit a new request to the FHWA and agree to comply with the terms and conditions of IA-21.

Some of the changes on IA-21 is that a RRFB shall only be installed to function as a pedestrian-actuated conspicuity enhancement. Before, IA-11 stated that RRFB's shall only be installed to function as a warning beacon. Furthermore, the beacon flashing requirements for the RFRFB have been detailed on IA-21:

- a. When actuated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence.
- b. As a specific exception to the requirements for the flash rate of beacons provided in Paragraph 3 of Section 4L.01, RRFBs shall use a much faster flash rate and shall provide 75 flashing sequences per minute. Except as provided in Condition 5f below, during each 800-millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:

The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.

The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.

The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.

The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.

Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 50 milliseconds.

Both RRFB indications shall be illuminated for approximately 50 milliseconds. Both RRFB indications shall be dark for approximately 250 milliseconds.

- c. The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not be between 5 and 30 flashes per second to avoid frequencies that might cause seizures.
- d. The light intensity of the yellow indications during daytime conditions shall meet the minimum specifications for Class 1 yellow peak luminous intensity in the Society of Automotive Engineers (SAE) Standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.
- e. To minimize excessive glare during nighttime conditions, an automatic signal dimming device should be used to reduce the brilliance of the RRFB indications during nighttime conditions.
- f. Existing RRFB units that use the flashing sequence that was specified in the Interim Approval 11 memorandum and a subsequent interpretation (the RRFB indication on the left-hand side emits two slow pulses of light after which the RRFB indication on the right-hand side emits four rapid pulses

continued on page 7

of light followed by one long pulse of light) should be reprogrammed to the flash pattern specified above in Condition 5b as part of a systematic upgrading process, such as when the units are serviced or when the existing signs are replaced.

IA-21 also details the allowable uses of RRFBs:

An RRFB shall only be installed to function as a pedestrian-actuated conspicuity enhancement.

- a. An RRFB shall only be used to supplement a post-mounted W11-2 (Pedestrian), S1-1 (School), or W11-15 (Trail) crossing warning sign with a diagonal downward arrow (W16-7P) plaque, or an overhead-mounted W11-2, S1-1, or W11-15 crossing warning sign, located at or immediately adjacent to an uncontrolled marked crosswalk.
- b. Except for crosswalks across the approach to or egress from a roundabout, an RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, traffic control signals, or pedestrian hybrid beacons.
- c. In the event sight distance approaching the crosswalk at which RRFBs are used is less than deemed necessary by the engineer, an additional RRFB may be installed on that approach in advance of the crosswalk, as a pedestrian-actuated conspicuity enhancement to supplement a W11-2 (Pedestrian), S1-1 (School), or W11-15 (Trail) crossing warning sign with an AHEAD (W16-9P) or distance (W16-2P or W16-2aP) plaque. If an additional RRFB is installed on the approach in advance of the crosswalk, it shall be supplemental to and not a replacement for the RRFBs at the crosswalk itself.

In addition to the conditions of the Interim Approval, IA-21 details the general conditions, sign/beacon assembly locations, beacon dimensions and placement in the assembly, beacon flashing requirements, beacon operation and accessible pedestrian features.

IA-21 can be accessed at the following link: https://mutcd.fhwa.dot.gov/resources/interim_approval/ia21/index.htm

The RRFB, while popular and effective, is not the only treatment available for uncontrolled crosswalks. Every crosswalk should be evaluated to determine the most appropriate treatment(s) based on the specifics of each location. To assist agencies and practitioners, the FHWA has prepared a four-page informational brief on effective treatments that comply with the MUTCD and can be used individually or in combination at uncontrolled marked crosswalks. The informational brief can be found at: https://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/informationalbrief/index.htm



Example of an RRFB dark (left) and illuminated during the flash period (center and right) mounted with W11-2 sign and W16-7P plaque at an uncontrolled marked crosswalk.

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TALK TO TTAP

1. Please send me more information on the following articles mentioned in this newsletter.

2. Please list any additional training workshops you would be interested in attending.

3. Please list any other ideas or suggestions on how TTAP could assist you.

4. Please list your name and organization to verify for TTAP's mailing list.

Name _____

Address _____

Title _____

Organization _____

Phone _____ Fax _____

Email _____

Are you currently on TTAP's mailing list?

___ yes ___ no

Do you wish to be on the mailing list?

___ yes ___ no