

Curve signing should be installed after an engineering review (which should include a review of the recent accident history and the roadway geometrics) has determined a need for such signing. Curve visibility to the driver is also affected by the horizontal or vertical roadway characteristics and should also be considered when determining the need for advance warning signing. Generally, if there is a tangent deflection that would require a decrease of 10 mph in your travel speed, advance warning signing should be considered for that curve location. To ensure consistency in application, each curve or turn should be evaluated by using a ball bank indicator (Slope Meter) to determine the "safe driving speed" through the roadway deflection. The angle of deflection on the ball bank indicator will change with varying driving speeds through the curve. As an MUTCD option, when test run speeds through a curve create a 16 degree angle of deflection on the ball bank indicator, the recommended "safe driving speed" should be set at the closest five (5) mph interval that is below the maximum recorded driving speed required to produced the 16 degree deflection. After numerous test runs using different degrees of deflection, the Arkansas State Highway and Transportation Department decided to continue to use the 10 degree angle of deflection as the standard for establishing the "safe driving speed" for curves and turns. An experienced driver should be used to provide consistency and uniformity in each test run. The "safe driving speed" is used to determine whether a curve warning sign or turn warning sign should be installed in advance of the curve. Surface rutting and roughness throughout the length of the curve will affect the ball bank reading and should be considered for safety when negotiating the curve. If the derived curve speed is 30 mph or less, a turn warning sign is recommended in advance of the curvature. For a curve speed of 35 mph or greater, a curve warning sign is required. All sign assemblies should be installed following the guidance provided in the MUTCD.



Ball bank indicators can be purchased from commercial manufacturers, if desired. The Technology Transfer (T²) Program can provide onsite signing reviews and training on the proper use of safe speed indicators and the establishment of speed zone signing for local agencies. Contact Danny Moore at 501-569-2380 with your questions.

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CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM (CSEPP)

The Pine Bluff Arsenal is one of eight locations in the nation where chemical weapons are stockpiled. The United States Congress has ordered that these weapons be eliminated in the safest manner possible.



The Chemical Stockpile Emergency Preparedness Program (CSEPP) was established to enhance the emergency preparedness in communities around the chemical stockpiles until the stockpiles are eliminated. Arkansas' CSEPP is 100 percent federally funded to enhance Emergency Operations Centers, communications, alert and notification equipment (sirens and tone alert radios), first responder equipment, personnel, training and public awareness to the communities.

The Arkansas State Highway and Transportation Department (AHTD) and the Arkansas Department of Emergency Management (ADEM) have agreed to work together to address viable Intelligent Transportation Systems (ITS) for the State, counties and communities surrounding the Pine Bluff Arsenal in the event of a disaster. Intelligent Transportation Systems are the integration of current and emerging technologies such as information processing, communications, and electronics applied to solving surface transportation problems. Deployment of ITS technologies ensures the capability to continuously manage and fine-tune the transportation system's operation in response to unpredictable fluctuations in travel demand and incidents.

Specifically, as resources permit, the AHTD and the ADEM have agreed to:

- Address ITS technologies applicable for deployment to enhance mobility and safety in the event of a disaster.
- Develop a plan for deployment.
- Consult jointly with professional engineering services, if needed, to address ITS technologies applicable for deployment to enhance mobility and safety in the event of a disaster.
- Recommend a set of technologies to be deployed and a set of system requirements including short and long-term hardware, software and communications requirements.
- Determine the top priorities for ITS implementation.
- Develop a build out plan that meets the goals of the Arkansas Department of Emergency Management and the Arkansas State Highway and Transportation Department.



ARKANSAS STATEWIDE INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Traffic congestion has become one of the greatest problems on today's highways. The majority of congestion is caused by non-recurring incidents. If the number of non-recurring incidents could be reduced, it would help alleviate congestion, as well as improve the overall safety of the transportation network. Intelligent Transportation Systems (ITS) is a set of tools that allows technology to improve efficiency and safety on roadways by providing agencies with the ability to monitor the current traffic conditions and operate the roadway system in real time. This is greatly beneficial when dealing with an incident. It allows agencies to visually evaluate the incident and determine the necessary equipment and personnel needed without having to physically be at the site, thus saving time and, more importantly, lives. ITS includes information processing, communications, electronics, and sensors.

The Arkansas State Highway and Transportation Department identified a need for improved operations and incident management on the State highway system, so the Department contracted with PB Farradyne, Inc. to develop a strategic plan. The Intelligent Transportation Systems (ITS) Strategic Plan was developed to address operational and institutional strategies for improving freeway incident management, safety and traffic flow in urban areas and construction zones, commercial vehicle operations, and interagency coordination in Arkansas.

The purpose of the Arkansas Statewide ITS Strategic Plan was to guide the deployment of ITS technologies and systems in the State. These technologies will be implemented to enhance transportation operations and freeway incident management throughout the State. The intent of any ITS deployment is to improve the transportation system's safety, efficiency and effectiveness for both providers and consumers of transportation services. The concept of ITS is to manage the existing system to achieve better results. By monitoring what is occurring on the system, making adjustments when needed, responding to unexpected traffic patterns or incidents, and providing real-time information, travelers may adjust their use of the system to reflect current conditions. For more information please contact the Research Section at (501) 569-2576.

BIG TIME WASTERS

You may be well intended about getting things done during your day at work or during your personal time, but there are big time wasters that will conspire against you to take your productive time away. In conducting my Time Management Seminars over the last 20 years, I have identified five Big Time Wasters that you can attack.

1. Poor planning. "People don't plan to fail, but a lot of people fail to plan." Without a plan of action for your day, you tend to direct your attention to the most urgent thing that may not necessarily be the best use of your time. Often, the day will be filled with wheel spinning and "busy-ness," rather than business. When I was in the military, we referred to the "Six P's": "Poor planning produces pretty poor performance."
2. Procrastination. Taking the time for planning is great, but what if you don't execute on your plan? You tend to put off doing what you know you ought to be doing when there is little or no pain for not doing it and little or no pleasure to do it. Procrastinating the unimportant things has a positive value in your day. The problem for many is that they are procrastinating the important items.
3. Interruptions. You can do a great job of planning and not be much of a procrastinator, but interruptions will come your way and rob you of productivity. An interruption is an unanticipated event. That's what makes it an interruption. They come to you from two sources, in-person and electronic (telephone, e-mail, beeper, pager, etc.). Interruptions are both good and bad. There are A (crucial) and B (important) interruptions that you receive without reservation. By definition, they have value to you and are welcomed. But then there are the C (little value) and D (no value) interruptions that only take you away from being as productive as you might otherwise desire.
4. Failure to delegate. "If you want a job done well, you have to do it yourself." Have you ever said that to yourself? The problem is you only have 24 hours in your day, 7 days a week for a total of 168 hours. Subtract from the time you sleep (perhaps 8 hours per night, 7 nights per week, or 56 hours in total) and you are now down to only 112 hours each week to do everything you need and want to do. Delegation

is plugging into someone else's time stream when you don't have the time or the expertise to accomplish a particular task. Delegation is how you can leverage your time through other people. A lot of time is being wasted by doing what ought to be delegated to others.

5. Attending meetings. In a typical day in the United States, there are 17 million meetings. A meeting is when two or more people get together to exchange common information. What could be simpler? Yet it surely is a major time waster for many. They are particularly wasteful and unproductive when there is no agenda or time frame and the meeting then drifts out on one tangent and then another without concrete results.

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SAFE CURVE AND TURN SPEED SIGNING

The warning signs that are placed on our streets and roadways actually have an important function. They are placed at specific locations to call attention to unexpected conditions on or adjacent to a highway or street and to situations that might not be readily apparent to road users. Warning signs alert road users to conditions that might call for a reduction of speed or an action in the interest of safety and efficient traffic operations.

As stated in the 2003 Edition of the Manual on Uniform Traffic Control Devices (MUTCD), the use of warning signs shall be based on an engineering study or on engineering judgment. As other states have done, the State of Arkansas has adopted the MUTCD as the standard for signing and marking all publicly traveled roadways in this state. This means that all counties, cities and municipalities need to be applying the standards and guidelines set forth in this manual when signing or marking publicly used travel ways.

The use of warning signs should be kept to a minimum since the unnecessary use of these signs tends to breed disrespect for all signs. Proper use and placement of curve and turn warning signs should be standardized and kept uniform in application throughout the State and nation. The installation of non-standard signing should be prohibited and/or discontinued on our streets and roads. Examples of non-standard signing are the frequently seen signs such as "CHURCH," "CEMETERY," AND "SLOW CHILDREN PLAYING" signs, some of which may include advertisements for local businesses.

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