Safety Procedures for Work Performed in the Public Right-of-Way

July 31, 2008
Introduction

The Texas Transportation Institute (TTI) is committed to providing a safe and healthful work environment for its employees and visitors. All activities and work involve some level of risk to people and property. Many activities involve low-level risks of a type and magnitude routinely encountered and accepted as requiring no special measures for mitigation. Other activities may involve increased levels of risks and require additional, appropriate measures be taken to mitigate such risks.

The success of any risk management program is dependent upon each affected person understanding, accepting and adhering to the policies and procedures of this program as well as other agency policies and programs.

Purpose

The purpose of these procedures is to enhance awareness of risk levels in the work environment and limit exposure of personnel and property to the lowest practical level of risk through philosophy of risk management, training of personnel, engineering controls and establishment of policies and procedures.

The Safety Procedures for Work Performed in the Public Right-of-Way are designed to provide all affected TTI employees information needed to work safely in the public right-of-way (ROW). These procedures, when carried out by TTI employees, will help ensure the safe and efficient accomplishment of our work objectives.

Nature of Work Performed in the ROW

TTI conducts many forms of field data collection within the ROW of urban and rural roads. Activities may include, but are not limited to:

- Vehicle volume counts
- License plate surveys
- Roadway inventory
- Travel time runs
- Photography or video recording
Spot speed studies
- Installation of roadside devices
- Operation and maintenance of roadside devices
- Installation of research data collection trailers
- Vehicle turning movement counts
- Distance measuring instrumentation (DMI)
- Ground Penetrating Radar (GPR)
- Seatbelt use surveys
- Child safety seat use surveys

**Definitions**

The following definitions apply to this document.

- **Flagger** - A TTI employee independently certified through courses offered by the Texas Engineering Extension Service (TEES), the American Traffic Safety Services Association (ATSSA), the National Safety Council, or other approved organization or trained by TTI's certified flagging instructor. A flagger may direct traffic.

- **Project Supervisor** - The TTI employee that manages the research project. This may be the principal investigator or their designee.

- **Responsible Authority** - The agency that controls the right-of-way on which the work will occur.

- **Right-of-Way (ROW)** - The area set aside for the construction of roadways and the installation of utilities. The ROW line is also the property line for the adjacent property owners.

- **Site Supervisor** - The TTI employee in the field that is in charge of the work crew. This employee is designated by the project supervisor.

- **Spotter** - A TTI employee whose primary responsibility is to observe traffic and alert employees to potential conflicts. A spotter shall not direct traffic.
Safety Procedures

Personal Protective Equipment

Exposure to risks can be reduced through the use of appropriate personal protective equipment (PPE). All PPE shall meet current industry standards.

Employees working outside a vehicle within the ROW shall wear, as a minimum, the following personal protective equipment (PPE):

- Safety vest
- Hard hat
- Safety footwear (i.e., steel-toed shoes or boots)

Other PPE, as appropriate for the work being conducted, should also be worn (e.g., safety glasses if nature of work or work-site condition poses potential injury to eyes).

All employees shall be wearing the appropriate PPE prior to exiting a vehicle. PPE may be removed once inside a vehicle.

TTI provides PPE either through the agency safety office or as budgeted through related research projects. For additional information and requirements, refer to the personal protective equipment program and related procedures on TTINet (http://ttinet.tamu.edu/mgmt_org/safety/safety_services.stm).

Exemptions to Minimum PPE Requirements

The following are exemptions to minimum PPE requirements.

- Employees conducting surveys at a pedestrian facility (e.g., on a sidewalk) are exempt from the safety footwear requirement and are not required to wear a safety vest and hard hat only if the use of this PPE would negatively impact the project (i.e., calling attention to the employee when not desired for data purposes).

- Employees using data collection equipment (e.g., ground penetrating radar) that can be affected by the close proximity of metal to the equipment are exempt from the safety footwear requirement. Employees shall meet all other PPE requirements.

- Employees and authorized visitors to work sites in the ROW are exempt from the safety footwear requirement only if the visit is short-term, no
materials or equipment are being installed, serviced or tested, and no construction is occurring in that area. Employees and authorized visitors shall meet all other PPE requirements.

**Cellular Phones**

The site supervisor should possess a cellular phone for emergency use and for communication with the project supervisor. While working in the ROW, employees should limit the use of cellular phones.

Cell phones shall not be used:

- When employees are on foot in an active travel lane
- While operating a TTI vehicle

For additional information on TTI’s cell phone policy reference the Cell Phone Usage policy on the TTINet, [TTI Rules and Procedures: Pending Rules: Rule Number 34.08.11](#).

**Official Motor Vehicles**

- Employees operating or riding in official vehicles shall adhere to safety and operating procedures outlined in the TTI Motor Vehicle Operations program.

- Operators shall possess a valid driver’s license appropriate for the vehicle being driven and obey all traffic laws, warnings and advisements.

- The operator or designee shall retain the vehicle keys and ensure the vehicle is secured as needed.

- In the event of an accident, refer to the procedures outlined in the TTI Motor Vehicle Operations program.

**Pre-Project Site Visits and Meetings**

The project or site supervisor should conduct a pre-project visit to the work site(s). The supervisor should observe traffic flow, potential work sites, parking locations, potential hazards and other existing conditions at the site and use this information to maximize safety during data collection.

Potential work sites and parking locations may include pavement extended from the right-of-way, driveways, grassy areas, etc. Vehicles and equipment shall not
be positioned so as to obstruct the view of any traffic sign or signal or in a manner that creates a hazard to the traveling public.

The project or site supervisor shall notify the responsible authority of work being performed prior to data collection. If vehicles or equipment need to be located on private property, the project or site supervisor shall obtain approval from property owners prior to data collection. When the work site(s) is located in an urban area where TTI has an office, the project or site supervisor should notify the appropriate TTI urban office.

The project or site supervisor shall conduct a pre-project meeting to brief all members of the collection team(s) of the above items as well as any other necessary safety or operational procedures. Locations and duties of each team member should be discussed.

Pre-project visits and/or pre-project meetings may be done anytime prior to data collection, including the day of data collection. If any problems are observed, the data collection shall be delayed until the problems are resolved.

The project or site supervisor shall document, as a minimum, the following items about pre-project visits and pre-project meetings and retain this documentation in project files:

- Date
- Time
- Project and site supervisor names
- Person conducting the pre-project visit or pre-project meeting
- Attendance
- Potential safety concerns, if any
- Safety and operational procedures
- Map, diagram or drawing of site(s), as appropriate to document potential safety concerns

Additional activities outside the usual scope of projects, related preparation, support work, or that require use of areas outside the designated site, shall be reported to the project or site supervisor.
Ongoing Data Collection Efforts

Divisions and programs may establish safety and operational procedures for ongoing data collection efforts of a similar nature (not a per-project basis). Affected employees shall adhere to those established procedures and document, on a daily basis, the following items for supervisor’s inclusion in related project or division files:

- Date
- Attendance
- Supervisor name
- Safety or operational issues (list affected site, time of day, issue and resolution)
- Additional support documentation as needed

Site Supervisors

Site supervisors are responsible for:

- Reviewing project data collection and safety requirements
- Supervising team members
- Ensuring that all affected employees have certification of receipt of the Safety Procedures for Work Performed in the Public Right-of-Way
- Ensuring that team members are cognizant of environmental factors that may pose a potential health risk (e.g., thermal stress, extended exposure to the sun, etc.)
- Providing adequate breaks for all employees
- Maintaining project related documents for submission to the project supervisor

Depending on the site location, traffic volume and data collection or equipment installation process required, an employee might be the only team member at that particular work site. Under this condition, that employee will act as the site supervisor and be responsible for adhering to all safety procedures and reporting directly to the project supervisor.
Only employees with established experience in conducting safe data collection procedures shall be considered when a one-person team is required.

**Employees**

No employee shall attempt to conduct work with recognized potential hazards if he has not been properly trained in the procedures or with the required equipment.

Employees are responsible for:

- Understanding their duties and related safety and operational procedures for the project.
- Ensuring that all equipment, tools, safety gear and other items necessary for the project are secured in the vehicle(s).

Employees shall report to their supervisor all safety concerns or witness of default of safety procedures in others.

**Vehicular and Equipment Issues**

- Park the vehicle(s) in the location(s) designated by the project or site supervisor. This may include the pavement extended from the right-of-way, driveways, grassy areas, etc.
- Vehicles and equipment shall not be positioned so as to obstruct the view of any traffic sign or signal or in a manner which creates a hazard to the traveling public.
- If the vehicle is equipped with a flashing beacon, employees should use that beacon when exiting and entering the traffic stream and while parking the vehicle in a safe location. The flashing beacon should be used while parked unless the use of the beacon would negatively impact the project (i.e., calling attention to the vehicle when not desired for data purposes). If at any time the activation of the flashing beacon might create a conflict with on coming traffic, do not activate the beacon.

**Working In or Near an Active Travel Lane**

- Do not close or block an active travel lane unless absolutely necessary.
- If closing an active travel lane or the shoulder to perform work, the *Manual on Uniform Traffic Control Devices* (MUTCD) ([http://mutcd.fhwa.dot.gov/](http://mutcd.fhwa.dot.gov/)), as well as the responsible authority’s standards (e.g., state MUTCD, state
traffic control plans, etc.) shall be followed and appropriate approval shall be provided by the responsible authority.

- Employees should attempt to cross roadways **only** when acceptable gaps in traffic are present.

- A spotter should be used for work performed in areas of high traffic volume and/or high speeds.
  
  - The spotter should work on the same side of the roadway as the team members.
  - A spotter shall never direct traffic.
  - While it is the spotter’s primary responsibility to observe traffic and alert employees to potential conflicts, all employees shall be continuously aware of existing traffic conditions and alert each other to any potential hazards.

- A flagger shall not be used unless independently certified through courses offered by the Texas Engineering Extension Service (TEES), the American Traffic Safety Services Association (ATSSA), the National Safety Council, or other approved organization or trained by TTI’s certified flagging instructor.

**Material Handling**

- Always use appropriate PPE.

- Wear safety footwear if the operation poses a potential risk for foot injury.

- Wear leather gloves if abrasion risks or sharp-edged objects are present.

- Use lift equipment such as forklifts, pallet-jacks, dollies, hoists, cranes or carts when possible.
  
  - Employees must complete TTI's Forklift Operator Training in order to operate forklifts. Contact the TTI Safety Office for courses.

- Employ safe practices when using forklifts, dollies and other material handling devices.

- Provide a large enough area clear from people and objects for lifting and placement of heavy objects.

- Stack objects only on a firm foundation.
• Secure round objects so they cannot roll.
• Do not stack material so high as to cause an unsafe lifting and handling condition.

• Do not work underneath lifted material unless the material is supported by an approved and inspected lift device operated by trained personnel.

• Avoid splinters, slivers, projecting nails, burrs and rough or slippery surfaces.

• Keep fingers and body parts away from pinch points.

• Wipe off greasy, wet, dirty or slippery objects before trying to handle them.

• Use extreme caution when working in wet environments to avoid slips and falls.

• Inspect extension cords and other electrical components regularly to avoid electrical shock hazards.

• Follow HazMat procedures when handling and storing hazardous materials.

**Manual Lifting and Carrying**

• Do not lift more than you can handle comfortably.

• Never carry a load that you cannot see around.

• Keep your shoulders parallel to your hips when lifting. Do not twist.

• Place one foot alongside the object and one behind the object.

• Use the sit-down position and keep your back straight – remember that “straight” does not necessarily mean vertical.

• Draw the load close to your body and keep your arms and elbows tucked close to your body.

• Use your full palm to grip the object.

• Tuck in your chin and initiate the lift with a thrust of the rear foot.

• Keep manual lifting and carrying to a minimum.
Life Safety and Emergency Response

Dial 911 for ambulance, fire and police. From a phone system that requires you to dial a “9” prefix, dial 9-911.

- Provide the 911 dispatcher with the following information:
  - Location of emergency
  - If there are any injuries, describe type of injury, if known
  - Brief description of injured person (gender, age, etc.)
  - Your name and phone number (in case you are disconnected or the dispatcher needs additional information)

- If an ambulance is not needed:
  - Render first aid, only as trained.
  - Assist with transportation of employee to their personal physician, if appropriate.

- Make injured as comfortable as possible - do NOT move injured person unless directed by the 911 dispatcher (or if injured person is in immediate danger).

- Employees, an event witness or the employee’s supervisor shall complete an Employer’s First Report of Injury or Illness form to report any work injuries. Only facts, not opinions, should be stated on the form.

- Any time a safety issue arises, employees shall contact the appropriate supervisor immediately.

Additional Information

- The TTI Safety Office can assist with arrangements for personnel safety training in various areas and assist with written safety protocols.

- The TTI Safety Office shall review this program, at a minimum, on an annual basis.

- The TTI Safety Office is responsible for updating and maintaining this program with commentary from the TTI Safety and Environmental Council.