

CIRCULAR LETTER

SECTION: 705.01 GUARDRAIL AND END TERMINALS

NUMBER: 705.05-01

DATE: February 29, 2016

INSTALLATION OF GUARDRAIL AND GUARDRAIL END TERMINALS

All new guardrail, new guardrail end terminals, repair of existing guardrail, repair of existing guardrail end terminals, adjustment of guardrail, etc... shall be constructed in accordance with the appropriate section(s) of the TDOT Standard Specifications and/or Special Provisions and/or the appropriate TDOT Standard Drawing and/or the approved MASH shop drawing.

The TDOT inspector/representative shall complete the attached daily inspection form. The form must be signed by both the inspector and the Contractor's authorized representative. All certifications and FHWA acceptance letters for end terminals shall be attached to the inspection form. (It will only be necessary to supply one certification letter and FHWA acceptance letter for each type used.)

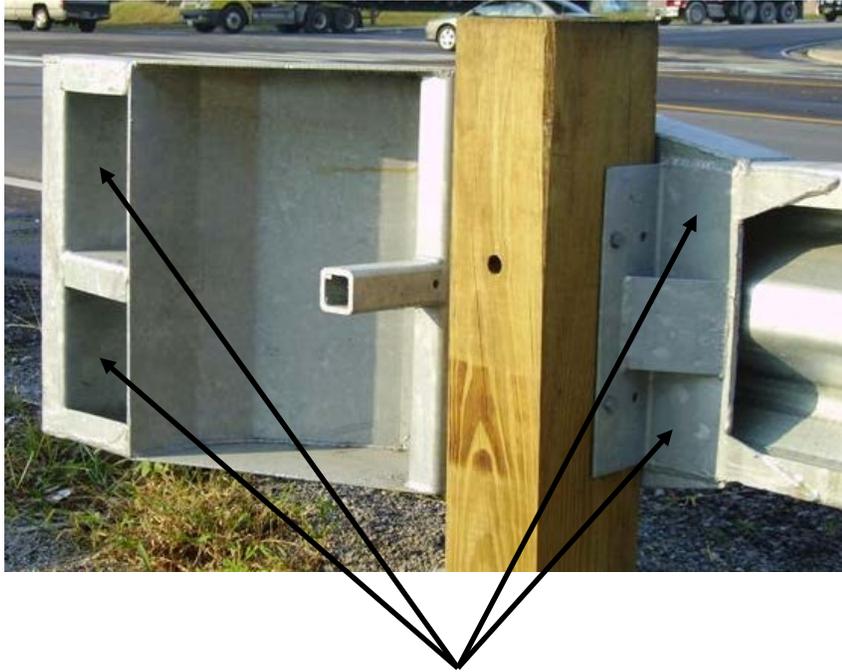
Installation decals shall be applied to all end terminal sections, either new installation or repair, as shown in Attachment #1. The tag should be placed on the guardrail end terminal in an area that is least likely to be damaged on impact.

Any post holes that are drilled in rock shall be documented on the inspection form and payment shall be in accordance with the specifications.

As noted in the Standard Specifications (SS700), each guardrail contractor/installer shall have a minimum of 5 line posts and 5 terminal posts per Region per year tested to verify length. The posts will be pulled by the Contractor who currently has each respective Region's "On Call Guardrail Repair Project".

ATTACHMENT #1

RECOMMENDATION FOR TAGGING GUARDRAIL END TERMINALS



EXAMPLE OF LOCATION FOR END TERMINAL TAG LOCATION

TENNESSEE DEPARTMENT OF TRANSPORTATION										
TO REPORT DAMAGE CALL 615-350-4300										
INSTALLATION DATE						CONTRACT NUMBER				
MONTH						B	C	D	E	F
1	2	3	4	5	6	0	1	2	3	4
7	8	9	10	11	12	0	1	2	3	4
YEAR						0	1	2	3	4
06	07	08	09	10		5	6	7	8	9

The above tag is an all weather decal that will adhere to any material including metal and wood. A hole punch is used to specify the installation date and contract number. The design is similar to the tag used for highway signs fabricated by the Department of Transportation. The tag should be placed on the guardrail end terminal in an area that is not likely to be damaged on impact, similar to the example above. **The Division**

of Materials and Tests will procure the tags and distribute them to the regions, as needed. These tags will be installed on new guardrail end terminals on both new construction and on-call maintenance projects.

ON-CALL GUARDRAIL REPAIR

The purpose of this Circular Letter is to address difficulties in the repair of guardrail due to existing field conditions on On-Call Guardrail Repair Contracts. This Circular Letter is not intended to address new guardrail installation or upgrade contract complications. These issues must be submitted to design for further investigation.

All guardrail anchor terminals **must** be installed as specified by Standard Drawings, Specifications, or Shop Drawings meeting NCHRP-350 criteria with **no** allowable exceptions.

It is the intent of the Department to install all guardrail as specified by Standard Drawings, Specifications, or Shop Drawings meeting NCHRP-350 criteria. If field conditions prevent the installation of line guardrail as intended, the following alternatives may be used. All revisions shall be clearly documented in the Daily Inspection Report.

1. Structures or utilities preventing the installation of guardrail posts to specified depth:
 - a) Allow shortened posts with a minimum length of 64 inches. Posts must maintain a 36 inch embedment. No alteration of posts will be allowed in the field. Altered posts must be shop cut and coated with an approved coating.
 - b) Allow a maximum of one additional block-out on three consecutive posts.
 - c) Allow the nesting of an additional section of rail to eliminate a maximum of two consecutive posts. The nested guardrail must extend a minimum of two posts beyond each side of the omitted posts (See figure 1. on attachment). When no contract unit price has been established for Nested Guardrail, payment will be made at a rate equal to 1.5 times the contract unit price for Single Guardrail (Type 2). Payment shall be full compensation for all posts, blocks, rail elements, hardware, labor and equipment necessary to complete the work.

2. Obstacles or utilities preventing the proper deflection behind the guardrail:
 - a) Remove or relocate the obstacle, if possible.
 - b) Remove trees in accordance with TDOT Policy # 501-02 with the approval of the Regional Director.
 - c) If utility structures prevent proper deflection, notify utility in writing of obstacle on State Right-of-Way and liability. Elevate situation through Regional Construction Manager and Utilities.

3. Damaged anchors attaching guardrail to Bridge ends:
 - a) If existing anchors cannot be reused, holes shall be drilled through the existing parapet wall. Care shall be taken to ensure that excessive damage does not occur to the back of the parapet wall when drilling. Excessive damage shall be repaired at the contractor's expense using approved concrete patching materials. Bolts shall be

placed completely through the wall with galvanized bearing plates on the back as referenced in Standard Drawing SBR-2-134.

4. Inadequate slope backing for proper embedment of line post.
 - a) If possible, add additional embankment to obtain 44 inch embedment of posts. A minimum of 36 inch embedment of posts must be maintained.
 - b) Require the use of long post as required to obtain 44 inch embedment of post if possible. A minimum of 36 inch embedment must be maintained. (Item Numbers 705-02.20 and 705-02.25)

The proposed solutions described above shall be implemented only when approved by the Project Supervisor. The Project Supervisor must notify the Regional Construction Supervisor of the deviation from the Standard Drawing or Shop Drawing. Other conflicts that prevent the specified installation of guardrail shall be elevated to the Regional Construction Supervisor and forwarded to the appropriate Headquarters Construction Assistant Director for evaluation.

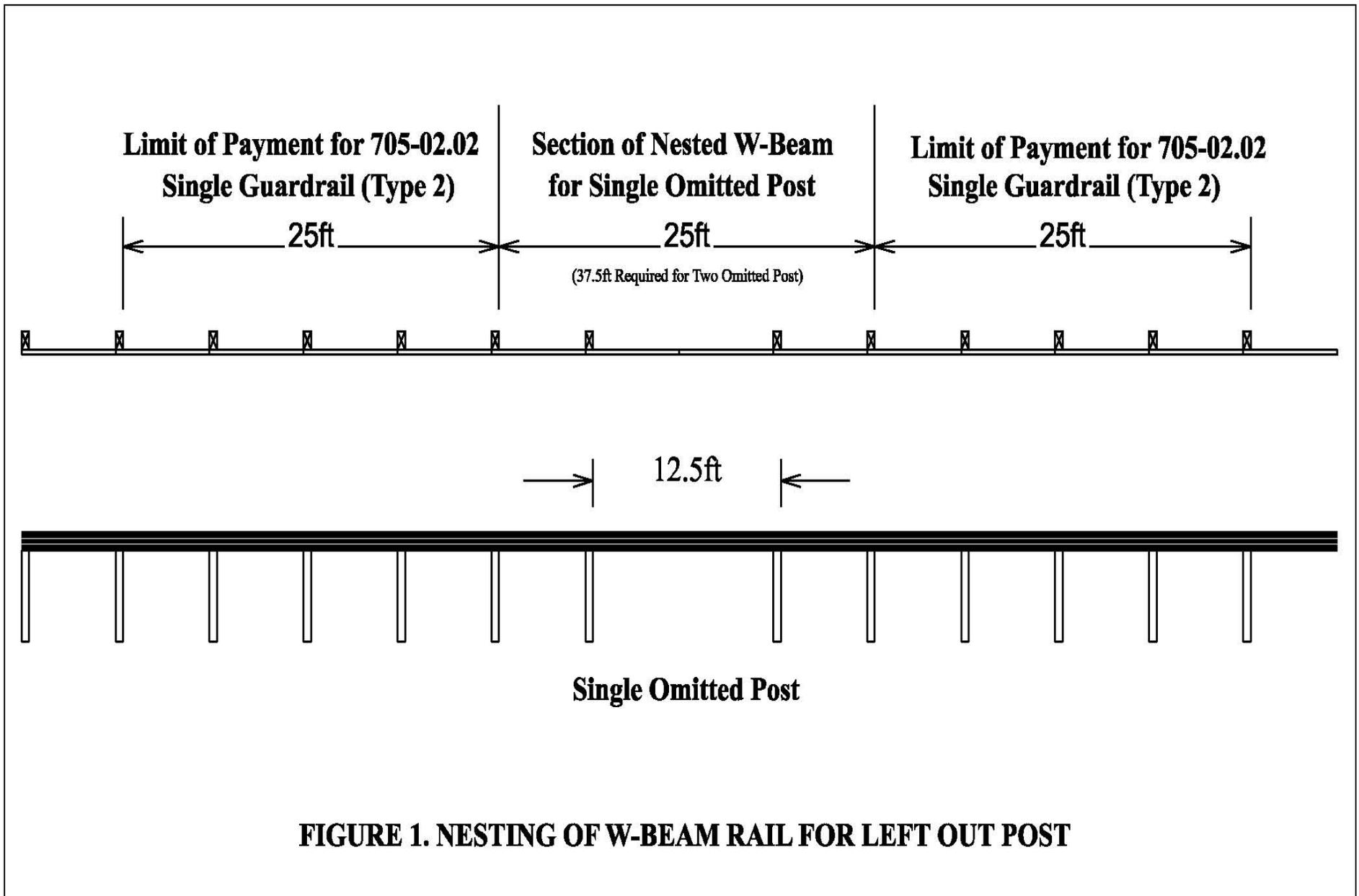


FIGURE 1. NESTING OF W-BEAM RAIL FOR LEFT OUT POST

CIRCULAR LETTER

SECTION: 705.01 GUARDRAIL AND END TERMINALS
NUMBER: 705.05-02
SUBJECT: ON-CALL GUARDRAIL REPAIR
DATE: OCTOBER 2, 2015

The purpose of this Circular Letter is to address difficulties in the repair of guardrail due to existing field conditions on On-Call Guardrail Repair Contracts. This Circular Letter is not intended to address new guardrail installation or upgrade contract complications. These issues must be submitted to design for further investigation.

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1. Structures or utilities preventing the installation of guardrail posts to specified depth:
 - a) Allow shortened posts with a minimum length of 64 inches. Posts must maintain a 36 inch embedment. No alteration of posts will be allowed in the field. Altered posts must be shop cut and coated with an approved coating.
 - b) Allow a maximum of one additional block-out on three consecutive posts.
 - c) Allow the nesting of an additional section of rail to eliminate a maximum of two consecutive posts. The nested guardrail must extend a minimum of two posts beyond each side of the omitted posts (See figure 1. on attachment). When no contract unit price has been established for Nested Guardrail, payment will be made at a rate equal to 1.5 times the contract unit price for Single Guardrail (Type 2). Payment shall be full compensation for all posts, blocks, rail elements, hardware, labor and equipment necessary to complete the work.

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 - a) Remove or relocate the obstacle, if possible.
 - b) Remove trees in accordance with TDOT Policy # 501-02 with the approval of the Regional Director.
 - c) If utility structures prevent proper deflection, notify utility in writing of obstacle on State Right-of-Way and liability. Elevate situation through Regional Operations Engineer and Utilities.

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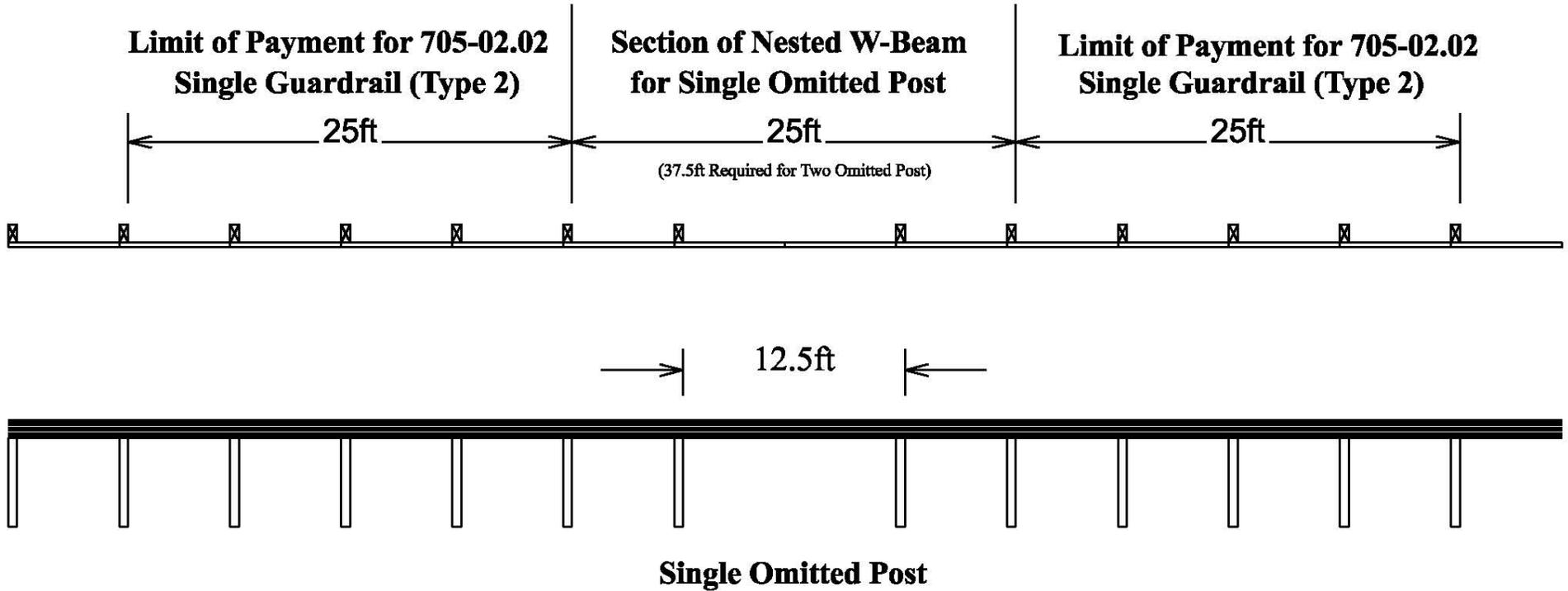


FIGURE 1. NESTING OF W-BEAM RAIL FOR LEFT OUT POST

CIRCULAR LETTER

SECTION: 712.04
NUMBER: 712.04-01
SUBJECT: REDUCTION OF SPEED LIMIT IN ACTIVE CONSTRUCTION ZONES
DATE: JUNE 15, 2013

In order to enhance safety for both the motoring public and construction personnel, the Department will permit, upon written request and written approval by the State Traffic Engineer, the Contractor to erect signs for reduced speed limits as warranted by the Guidelines for Establishing Work Zone Speed Limits. The Project Supervisor shall first review the Guidelines to determine if the reduction in speed is warranted before forwarding the request to the State Traffic Engineer.

The intent is to allow a reduction of the legal speed limit for the shortest period warranted in the area of active construction work as outlined in the Guidelines. The reduced speed limit signs are to be furnished, erected, maintained and removed at the contractor's expense. They are to be used only for the immediate area of active construction work.

Enclosed, herewith along with the Guidelines, is a suggested form that may be used for the approval procedure.

Date:

Contract No.:

Project No.:

Project Reference No.:

County:

Civil Engineering Supervisor
Tennessee Department of Transportation

Dear Sir:

We _____, Prime Contractor, on the above captioned project, request permission to reduce the speed limit from ____MPH to ____MPH to utilize Speed Limit Reduction Signs as shown on Tennessee Department of Transportation Drawing No. T-S-18. We agree to utilize subject signs only in the immediate area of active construction. We further agree to furnish, erect, maintain and remove them at our expense. The flashing lights will only be operational when active work is begin performed.

Thanks for your consideration of this matter.

Prime Contractor

Approved: _____
Civil Engineering Supervisor

Date: _____

Copy to Regional Construction Engineer

CIRCULAR LETTER

SECTION: 712.04 TEMPORARY TRAFFIC CONTROL - GENERAL
NUMBER: 712.04-02
SUBJECT: REVIEW AND APPROVAL OF PROPOSED TRAFFIC CONTROL PRIOR TO MAJOR DISRUPTIONS OF EXISTING TRAFFIC PATTERNS
DATE: FEBRUARY 1, 1994

Anytime proposed construction requires major disruption to existing traffic patterns, the Regional Traffic Engineer is to be consulted. The Regional Traffic Engineer should be provided details on the proposed disruption, including but not limited to advance warning, possible alternate routes, type of disruption, time and length of disruption, Contract Plans, etc. The Regional Traffic Engineer should review, modify if needed, and approved the proposed plan prior to implementation. The Regional Traffic Engineer's guidance is crucial to minimize negative impacts and to maximize safety for the public.

Such major disruptions could include closures of interstate, primary, major arterials and/or secondary highways; lane closures on urban interstates or major arterials; and any other disruptions deemed appropriate.

CIRCULAR LETTER

SECTION: 712.04 TEMPORARY TRAFFIC CONTROL
NUMBER: 712.04-04
SUBJECT: GUIDELINES FOR LAW ENFORCEMENT USE ON TDOT PROJECTS
DATE: ~~FEBRUARY 24, 2016~~~~OCTOBER 2, 2015~~JULY 1, 2013

Effective all lettings after July 1, 2013, the use of Uniformed Law Enforcement Officers will be subject to the following guidelines.

Definition of Terms

Uniformed Law Enforcement Officer: (Uniformed State Commissioned Police Officer or Tennessee Highway Patrol Trooper) A law enforcement officer, with a marked law enforcement vehicle equipped with blue lights, having the authority to write traffic tickets and make arrests at the project site.

Introduction

These guidelines were developed to provide guidance addressing the use of uniformed law enforcement on Federal-aid highway projects in accordance with the Federal Highway Administration's (FHWA) ruling on Temporary Traffic Control Devices (23 CFR 630 Subpart K). Specifically, these guidelines address:

- 1) General nature of law enforcement services to be provided
- 2) Conditions where law enforcement in work zones may be needed or beneficial
- 3) Determining need and priority for law enforcement services based on project-specific factors and characteristics
- 4) Provision of Uniformed Law Enforcement officers and project-level communications
- 5) Compensation of law enforcement services
- 6) Required documentation
- 7) Officer training requirements

General Nature of Law Enforcement Services

The primary function of the Uniformed Law Enforcement officer is to enforce regulatory speeds and coordinate the removal of vehicles with the Tennessee Department of Safety and/or other law enforcement agencies having jurisdiction through the work zone. Authorization to move a vehicle involved in a traffic accident is retained exclusively by law enforcement officers.

Uniformed Law Enforcement officers may also be used:

- 1) When a new phase of traffic control must be implemented to provide brief stoppage of traffic to allow Contractors to re-align traffic control devices, erect new signs, apply new pavement markings and/or prepare the highway for traffic;
- 2) In areas where excessive speeding or crashes are common;
- 3) On high-speed roadways to position law enforcement in advance of traffic queues to alert approaching motorists of stopped traffic;

- 4) To mitigate safety and congestion impacts by improving the driver behavior and alertness of the work zone.

Note: In no case shall Uniformed Law Enforcement officers be used to replace flaggers.

Determining Need and Priority for Project-Specific Services

In general, the need for law enforcement is greatest on projects with high traffic speeds and volumes, and where the work zone is expected to result in substantial disruption to or changes in normal traffic flow patterns. Conditions should be examined on a per-project basis to determine the need for or potential benefit of law enforcement. Project factors and characteristics used to determine need may include, but are not limited to:

- 1) Project scope and duration;
- 2) Anticipated traffic speeds through the work zone;
- 3) Anticipated traffic volume;
- 4) Vehicle mix;
- 5) Type of work (as related to worker exposure and crash risks);
- 6) Distance between traffic and workers, and extent of worker exposure;
- 7) Escape paths available for workers to avoid a vehicle intrusion into the work space;
- 8) Time of day (e.g., night work);
- 9) Work area restrictions (including impact on worker exposure);
- 10) Consequences from/to road users resulting from roadway departure;
- 11) Potential hazard to workers and road users presented by device itself and during device placement and removal;
- 12) Geometrics that may increase crash risks (e.g., poor sight distance, sharp curves);
- 13) Access to/from work space;
- 14) Roadway classification; and
- 15) Impacts on project cost and duration.

Provision of Uniformed Law Enforcement Officers

Upon the approval of the Regional Safety Coordinator or Regional [Construction Supervisor](#) [Operations Engineer](#), Uniformed Law Enforcement Officers may be provided as follows:

- 1) THP Troopers may be used as established by a Memorandum of Agreement (MOA) between TDOT and TDOS. When a Project Supervisor determines the need for a THP Trooper in a work zone, they will submit the State Trooper Request form* to the Regional Safety Coordinator or Regional ~~Operations Engineer~~ ~~Construction Supervisor~~, who will make the request to the THP Sergeant who schedules each THP Trooper. The date, time, location, and type of work on the TDOT project must be conveyed to the Sergeant. All requests to provide the THP should be received at least forty-eight (48) hours in advance of the requested time of service. It is the responsibility of the on-site TDOT Inspector to meet with the officer upon arrival to obtain information for documenting the officer's work hours and for providing information to the officer regarding the work to be performed.

** The State Trooper Request form is located in File Management at :\\HQ Construction\Standard Forms\Correspondence\Outgoing*

When the THP is scheduled to work and the work is canceled, or the schedule is changed, the contractor is responsible for notifying the THP and the Project Engineer at least two (2) hours prior to the scheduled time of work. The Project Engineer should immediately notify the Regional Safety Coordinator or Regional ~~Operations Engineer~~ Construction Supervisor.

- 2) When THP Troopers are not available, or the Regional Safety Coordinator or Regional ~~Operations Engineer~~ Construction Supervisor determines that the project would benefit from the use of County or Municipal Police, a Uniformed Police Officer is available through the use of the Non-Bid Item 712-08.01. This item is added to the contract by contacting the Headquarters Finance Division. The Uniformed Police Officer shall be provided in accordance with the Standard Specifications.

Compensation

THP Troopers: In accordance with the MOA, THP Troopers shall only be paid for the actual hours of service provided to TDOT; therefore Troopers shall not be paid for time driving to and from the project site. Time charges are calculated from the time of arrival at the work site to the time of departure from the work site. If work is discontinued for weather or other unforeseen reasons, Troopers may elect to stop work and receive payment for the hours worked or continue to monitor/patrol the project until ~~a total of (2) hours~~ total of (2) hours for the shift have been accumulated. It is imperative that the project inspector accurately document the Trooper's hours. This documentation will be used by the Regional ~~Construction Supervisor~~ Operations Engineer or Regional Safety Coordinator to verify invoices received from the Department of Safety.

THP Troopers arriving at the work site without being notified of cancellation or schedule changes shall be allowed to monitor/patrol the project for a maximum of (2) hours. Additionally, the contractor shall be charged liquidated damages equaling the THP pay rate for the hours of service, up to a maximum of two (2) hours of work.

Uniformed Police Officer: Uniformed Police Officers shall be provided by the contractor and compensation made by the Department for the invoice price of the work plus 5% not to exceed \$50 per hour for the hours present on the project. No compensation will be made for drive time.

Required Documentation

The attached form shall be used to document the THP Trooper's hours and shall be submitted weekly to the Regional Safety Coordinator or Regional ~~Construction Supervisor~~ Operations Engineer with a copy placed in the project files.

When Uniformed Police officers are used, the hours worked shall be documented in SiteManager. The construction inspector shall note the beginning and ending time of work; total hours worked and type of work done by the Uniformed Police Officer.

Officer Training Requirements

All Uniformed Law Enforcement Officers shall have POST certified training and shall have an additional 4 hours of FHWA approved work zone training. Copies of each officer's record of training shall be provided to the Project Supervisor and placed in the project file.

See Circular Letter 712-04.03 for more information regarding training requirements. All Uniformed Law Enforcement Officers working on TDOT projects shall have training from a Peace Officer Standards and Training (POST) certified police training academy in the State of Tennessee. These academies are as follows:

- a. Tennessee Law Enforcement Training Academy (3025 Lebanon Rd., Nashville, TN 37214-2217)
- b. Tennessee Department of Safety THP Training Academy (275 Stewarts Ferry Pike, Nashville, TN 38124)
- c. Blount Co. Sheriff's Office Law Enforcement Training Academy (940 E. Lamar Alexander Pkwy., Maryville, TN 37804)
- d. Chattanooga Police Department Training Academy (3200 Amnicola Hwy., Chattanooga, TN 37406)
- e. Cleveland State Community College Police Training Academy (P.O. Box 3570, Cleveland, TN 37329-3570)
- f. Knox Co. Sheriff's Office Regional Training Academy (4900 Maloneyville Rd., Knoxville, TN 37921)
- g. Knoxville Police Department Training Academy (220 Carrick St., Suite 202, Knoxville, TN 37921)
- h. Memphis Police Academy (4371 O.K. Roberson Rd., Memphis, TN 38128)
- i. Metro Nashville Police Department Training Department (2715 Tucker Rd., Nashville, TN 37218)
- j. Shelby Co. Sheriff's Office Training Academy (993 Dovecrest, Memphis, TN 38134)
- k. Walter State Community College Regional Law Enforcement Academy (215 North College St., Greenville, TN 37743)

In addition, after April 30, 2011, all Uniformed Law Enforcement Officers working within TDOT work zones shall have an additional 4 hours of FHWA approved work zone training by December 31, 2010. The course currently approved is "Safe and Effective Use of Law Enforcement personnel in Work Zones" from the FHWA. This course is subject to change periodically to reflect changes in the industry and State practices. Record of this training shall be submitted to the TDOT Project Supervisor for inclusion in the project files.



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

Your Office Street Address
Your Office City, State and Zip Code

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

TO: Regional Safety Coordinator

FROM: Supervisors "Typed" Name
OPERATIONS SPECIALIST SUPERVISOR I

DATE: _____

RE: STATE TROOPER REQUEST

Contract: _____

Project No: _____

Contact Person: _____

of Troopers: _____

Work Zone: _____

Dates: _____

Times: _____

Meeting Location: _____

Remarks (if needed): _____

Tennessee Highway Patrol Hours

Use of Tennessee Highway Patrol must be approved in advance by the Regional Safety Coordinator or Regional Construction Supervisor.

Contract No:		Project No:	
For week beginning:			

Date	Name of THP Trooper	Time Begin – End	Hours Worked	Type of Work (use codes listed below)

Note: THP Troopers arriving at the work site without being notified of cancellation or schedule changes shall be allowed to monitor/patrol the project for a maximum of (2) hours.

Work Codes:

- A. Area of frequent worker presence adjacent to high-speed traffic without positive protection devices
- B. Traffic control setup or removal that presents significant risks to workers and motorists
- C. Complex or short term changes in traffic patterns with significant potential for motorist confusion or worker risk
- D. Safety and congestion impacts related to the work zone activity that may be mitigated by improved driver behavior and awareness of the work zone
- E. Work zone operations that require brief stoppages of all traffic in one or both directions (e.g. Bridge beam erection)
- F. High-speed roadways where unexpected or sudden traffic queuing is anticipated
- G. Other work site conditions where traffic presents high risk for workers and motorists

Project Inspector: _____

Copies to: Project file; Regional Construction Supervisor or Regional Safety Coordinator

CIRCULAR LETTER

SECTION: 712.07 MAINTENANCE
NUMBER: 712.07-01
SUBJECT: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND CHECKLIST FOR TRAFFIC CONTROL DEVICES
DATE: OCTOBER 2, 2015

All construction warning signs are to be placed in accordance with the Manual on Uniform Traffic Control Devices for Highway Construction and Maintenance Operations.

Construction signs should be erected no closer than 50 feet from an existing sign. Construction signs may be moved plus or minus 100 feet from the Plans location in order to avoid conflicts with existing signs, driveways and side streets. The Regional Traffic Engineer should be contacted if these criteria cannot be met.

At the beginning of work on a project, the construction signs and other traffic control devices are to be placed in accordance with the MUTCD and, thereafter, properly maintained and changed as conditions on the project change.

To direct traffic through construction projects safely and expeditiously, it is imperative that adequate and proper signing be maintained for the full duration of the project. Such maintenance includes the cleaning, repositioning, temporary covering, removing of foliage or other needs as warranted. It should be noted that the MUTCD illustrates minimum desirable standards for normal situations. Additional protection must be provided when special complexities and hazards exist.

To be effective, signing must be credulous. To maintain credibility the signing must convey to the motorist exactly what can be expected on the road ahead. This cannot be accomplished with contradictory or improper signing. Signs should be removed or covered when they are not applicable. If a driver observes a sign several times such as "Right Lane Closed" or "Flagmen Ahead", but as he proceeds he finds the situation conveyed by the message to be nonexistent, he will be much more apt to disregard it in the future. In addition, when a series of signs encroach into the area of another series of signs, only the signs conveying the appropriate message should be displayed. For example, if a series of lane closure signs encroach into the advance warning signs, the advance warning signs should be covered or removed until their need is warranted again.

It is important that the responsibility for inspecting the signing be clearly defined. This responsibility may be assigned to one individual on a region wide basis or on a project basis by the designation of a staff member by the Project Engineer.

Signing should be inspected at least once a week or more often if conditions warrant. Inspections should be made periodically during hours of darkness.



WORK ZONE TRAFFIC CONTROL INSPECTION FORM

Contract No.		Project No.	
Date / Time	/ / _ : _ a.m. <input type="checkbox"/> p.m. <input type="checkbox"/>		
Location			County
No. of Lanes			Posted Speed Limit MPH
Weather / Lighting Conditions			Project Type

ADVANCE WARNING SIGNS

SIGN QUANTITY		
Appropriate No. of Signs	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(If No, Explain)</i>
Missing Sign(s)	Yes <input type="checkbox"/> <i>(If Yes, Explain)</i>	No <input type="checkbox"/>

SIGN CONDITION	Good	Poor
Cleanliness	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Legibility	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Reflectivity	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>

LEGENDS	Yes	No
Appropriate Legends	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Unneeded Signs Visible	<input type="checkbox"/> <i>(Explain)</i>	<input type="checkbox"/>
Signs Posted, No Work	<input type="checkbox"/> <i>(Explain)</i>	<input type="checkbox"/>

SIGN PLACEMENT	Good	Poor
Height	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Visibility	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Spacing	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>

ARROW PANEL A, B, C, or D	Good	Poor
Placement	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Delineated / Shielded	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Removed When Not In Use	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>

SIGN SUPPORTS		
Stationary Sign Supports	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Installed per TDOT Specs.	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(If No, Explain)</i>
Portable Sign Stands	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Removed from Clear Zone When Not In Use	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(If No, Explain)</i>

CHANNELIZING DEVICES

TYPE OF UPSTREAM TAPER <i>(Check One)</i>	
Merging <input type="checkbox"/>	Shifting <input type="checkbox"/>
Shoulder <input type="checkbox"/>	One-Lane, Two-Way <input type="checkbox"/>

DOWNSTREAM TAPER <i>(Optional)</i>		
Used	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Taper Length	<i>Feet</i>	

CHANNELIZING DEVICE CONDITION

DEVICE	Good	Poor
Barricades Type I, II, or III	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Drums	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Cones	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Tubular Markers	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Vertical Panels	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Warning Lights	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>

DEVICE	Yes	No
Adequate Spacing	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Adequate Taper Length	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Appropriate No. of Devices	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>
Non-Standard Device	<input type="checkbox"/> <i>(Explain)</i>	<input type="checkbox"/>

PAVEMENT MARKINGS

USE OF PAVEMENT MARKINGS		
Markings Used	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Easily Understandable	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(If No, Explain)</i>
Conflicting Markings Removed	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(If No, Explain)</i>

CONDITION	Good	Faded	Damaged / Dislodged
Paint / Tape	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>	<input type="checkbox"/> <i>(Explain)</i>
Raised Markers	<input type="checkbox"/>	<input type="checkbox"/> <i>(Explain)</i>	<input type="checkbox"/> <i>(Explain)</i>

FLAGGING

FLAGGER USE			
Flagger(s) Used	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No. of Flaggers
Flagger Station Preceded By Advance Warning Signs	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(Explain)</i>	
Flaggers Are Clearly Visible To Approaching Traffic	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(Explain)</i>	
Approaching Traffic Has Sufficient Distance To Stop	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(Explain)</i>	
Flagger Stations Illuminated (Night Time)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Signaling Device	Slow / Stop Paddles <input type="checkbox"/>	Flags <input type="checkbox"/>	

FLAGGER ATTIRE	
High-Visibility Apparel	
Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(Explain)</i>

Communication Used Between Flaggers	
Visual Contact <input type="checkbox"/>	
Two-Way Radio Contact <input type="checkbox"/>	
Flagging Technique	
Good <input type="checkbox"/>	Poor <input type="checkbox"/> <i>(Explain)</i>

ROADSIDE SAFETY

Portable Barrier Used	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Barrier Condition	Good <input type="checkbox"/>	Poor <input type="checkbox"/> <i>(Explain)</i>
Barriers Properly Connected	Yes <input type="checkbox"/>	No <input type="checkbox"/> <i>(Explain)</i>
Impact Attenuator Used	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Impact Attenuator Condition	Good <input type="checkbox"/>	Poor <input type="checkbox"/> <i>(Explain)</i>

BARRIER DELINEATION		
Lights	Good <input type="checkbox"/>	Not Working <input type="checkbox"/> <i>(Explain)</i>
Reflectors	Good <input type="checkbox"/>	Poor <input type="checkbox"/> <i>(Explain)</i>
Vertical Panels	Good <input type="checkbox"/>	Poor <input type="checkbox"/> <i>(Explain)</i>

CIRCULAR LETTER

SECTION: 712.09 METHOD OF PAYMENT
NUMBER: 712.09-01
SUBJECT: PAYMENT FOR PORTABLE BARRIER RAIL
DATE: JUNE 15, 2010

There has been confusion and inconsistency, from one region to another, regarding payment for the movement of portable barrier rail.

This letter is being issued in order to promote more uniformity throughout the state. The Standard Specifications seem quite clear on the matter, but it's not that simple in the field. The Specs declare that there will be only one payment per site. Each side of a median divided road and each bridge on a project is a separate site. Generally, the thinking is that moving the barrier across the roadway is not another site, thus one payment. But, when the contractor has to pick up the rail, put it on a low boy and move it to another location, then this constitutes another site.

The Contractor has the option of creating a traffic control plan and a plan for construction phasing. If these plans are approved by the Project Supervisor, the contractor is obliged to follow this plan unless he is instructed to do differently at some juncture by the Project Supervisor. If the Project Supervisor directs the contractor to load up and move to another site as mentioned before, that is, not per his approved construction phasing plan or traffic control plan, then the contractor is entitled to payment. The Project Supervisor is cautioned to avoid moving median barrier rail unless there is a real need because there is a cost involved.

Payment amount for relocations due to safety of work zone or traffic, as established in the traffic control plans or as directed by the Project Supervisor, laterally up to 10 ft., shall be paid at ten percent (10%) of the interconnected portable barrier bid amount unless a separate item is in the proposal.

Judgments will still have to be made in the field, but this may help clarify some of these decisions.

CIRCULAR LETTER

SECTION: 713.04 CONSTRUCTION METHODS AND REQUIREMENTS
NUMBER: 713.04-01
SUBJECT: ERECTION OF PERMANENT SIGNS
DATE: JANUARY 1, 2010

Desirable lateral and vertical clearances are indicated in **Section 2A.16** Standardization of Location of the MUTCD (2009 Edition).

Circumstances at some locations prohibit strict compliance with MUTCD. In those situations the signs should be located to maximize both visibility and safety.