



## *Florida Department of Transportation*

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July 20, 2016

Khoa Nguyen  
Director, Office of Technical Services  
Federal Highway Administration  
3500 Financial Plaza, Suite 400  
Tallahassee, Florida 32312

Re: State Specifications Office  
Section **538**  
Proposed Specification: **5380000 Resetting Guardrail.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Richard Stepp of the State Roadway Design Office to create consistent language and to separate clearly the difference between non-reusable components that have been replaced for all resets and included in the Pay Item vs. unforeseen components.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to [dan.hurtado@dot.state.fl.us](mailto:dan.hurtado@dot.state.fl.us).

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Dan Hurtado, P.E.  
State Specifications Engineer

DH/ot  
Attachment  
cc: Florida Transportation Builders' Assoc.  
State Construction Engineer

## RESETTING GUARDRAIL.

(REV 3-304-27-7-20-16)

SECTION 538 is deleted and the following substituted:

## SECTION 538

### RESETTING GUARDRAIL

#### 538-1 Description.

Remove ~~and reinstall and reset~~ the existing guardrail ~~system and reinstall~~, using new and reusable components, ~~and posts to~~ at the locations as shown in the Plans. ~~Reinstall~~ Construct the reset guardrail in ~~conformance~~ accordance with the ~~current edition of the current Design Standards, including the criteria for height, spacing, and midspan panel splices. The~~ ~~Reset~~ guardrail will include using new and reusable components, excluding components defined as non-reusable below in this Section. ~~Resetting~~ guardrail consists of relocating existing posts and reattaching existing panels.

Furnish and install ~~new~~ ~~E~~nd ~~T~~reatment ~~A~~ssemblies, ~~A~~pproach ~~T~~ransition connections to ~~R~~igid ~~B~~arriers, trailing end transition connections to rigid barrier, and ~~B~~ridge ~~A~~ncorage ~~A~~ssemblies ~~per~~ in accordance with Section 536 as required by the Plans ~~where required (i.e. reuse of these devices is not permitted)~~.

#### 538-2 Materials.

~~538-2.1 General: Construct the reset guardrail using only new and reusable components in accordance with Section 536, excluding non-reusable components as defined below in 538-2.2. Reinstall all components for resetting guardrail in accordance with Section 536. Replace non-reusable hardware and posts with new materials necessary to complete the reset installation, as determined by the Engineer. Do not reuse timber posts.~~

~~538-2.21 Planned Non-reusable Components: The following items are considered planned non-reusable components and must be replaced with all new components:~~

1. Timber ~~P~~osts
2. Timber ~~O~~ffset ~~B~~locks
3. End ~~T~~reatment ~~A~~ssemblies
4. Approach ~~T~~ransition ~~E~~connections to ~~R~~igid ~~B~~arrier, ~~s~~ including but not limited to panels, posts, hardware, offset blocks, etc.
5. Trailing end transition connections to rigid barrier
56. Bridge ~~A~~ncorage ~~A~~ssemblies, including but not limited to panels, posts, hardware, offset blocks, etc.
67. Mounting hardware, including but not limited to nuts, bolts, washers, etc.
8. Any other items specified as non-reusable ~~by~~ in the Plans

~~538-2.32 Unforeseen Non-reusable Components: During construction operations, the Engineer may deem other existing components, excluding planned non-reusable components, as unacceptable for re-use (excluding those listed above as Planned Non-reusable Components). Such components are considered ~~U~~nforeseen ~~N~~on-reusable ~~E~~components and ~~will~~ require replacement with new components. Unforeseen non-reusable components will be compensated in accordance with 4-4. Unforeseen Non-reusable components are subject to transportation payment as defined below.~~

*Components damaged during construction operations are not considered. Unforeseen A non-reusable E components and must be replaced with new components at no cost to the Department. — Provide new offset blocks for all installations.*

— Provide all new materials (i.e., panels, posts, offset blocks, hardware, etc.) for end anchorage assembly installations.

— Meet the requirements specified in 536-2.

### 538-3 Construction Methods.

*Reinstall all guardrail and components for resetting Construct the reset guardrail in accordance with Section 536. Install guardrail in accordance with Section 536.*

*If the reset guardrail is to be placed in the same location as the previous installation, do not use the previous installation's in-ground post holes. Place the reset posts at the approximate midspan location of the previous installation. Backfill and thoroughly tamp the empty unused, in-ground holes at the previous post locations.*

*To accommodate the new post locations, Field punch new P post B bolt S slots in the reusable—reusable guardrail panels where needed. Match—meet the dimension and treatment requirements of before resetting to install new slotted holes as shown in the Design Standards and Section- 536.*

— Prevent damage to reusable materials.

— Set posts in accordance with the requirements of 536-3 using a consistent type of post throughout a run of guardrail.

— Install guardrail panels, anchor blocks, offset blocks, barrier delineators, end anchorage assemblies, and hardware in accordance with Section 536, the Design Standards, and Plan details.

— Reusable materials damaged during resetting operations must be replaced at no cost to the Department.

### 538-4 Method of Measurement.

*The quantities to be paid for will be the plan length quantity, in linear feet, of reset guardrail; the number of end anchorage assemblies of each type as designated; the number of special posts, and the number of bridge anchorage assemblies; all as actually constructed, in place and accepted.*

*The plan length of a run of reset guardrail is measured end-to-end following the centerline of the panels, from the B begin/E end G guardrail S stations as defined in the Design Standards and specified in the Plans, including the E end T treatments and A approach T transition E connections to rigid barrier lengths will be determined as a multiple of the nominal panel lengths except that any panel which is cut off will be field measured.*

### 538-5 Basis of Payment.

*Price and payment for resetting guardrail will be full compensation for all work and materials specified in this Section, and Section 536, including the furnishing replacements for P planned A non-reusable E components (excluding end treatment assemblies, approach transition connections to rigid barriers, and bridge anchorage assemblies) and installation of all required components as defined in the Design Standards. The price and payment will include any R reduced P post S spacing, T trailing E end T transition E connections, shop-bent panels, and CRT post segments as defined in the Design Standards and shown in the Plans.*

~~Price and payment to furnish replacements for Unforeseen Non-reusable Components, (excluding any items damaged by the Contractor,) will be paid for at the original invoiced cost along with plus a transportation charge added in the amount of 25% of the invoiced cost.~~

~~Price and payment for new Newly furnished End Treatment Assemblies, approach Approach-Transition transition connections to Rigid Barriers, and Bridge Anchorage Assemblies are required with reset guardrail as needed; will be as specified in the price and payment are defined per Section- 536 Price and payment for end anchorage assemblies, special guardrail posts, and bridge anchorage assemblies will be as specified in Section 536.~~

~~Payment for new guardrail materials furnished to replace items determined to be non-reusable, excluding any items damaged by the Contractor, will be paid for at the actual invoiced cost including transportation charges, to which cost will be added an amount equal to 25% of the total charges.~~

Payment will be made under:

Item No. 538- 1-      Guardrail - Reset - per foot.

**RESETTING GUARDRAIL.****(REV 7-20-16)**

SECTION 538 is deleted and the following substituted:

**SECTION 538**  
**RESETTING GUARDRAIL****538-1 Description.**

Remove the existing guardrail system and reinstall using new and reusable components, at the locations shown in the Plans. Construct the reset guardrail in accordance with the Design Standards using new and reusable components, excluding components defined as non-reusable in this Section.

Furnish and install end treatment assemblies, approach transition connections to rigid barrier, trailing end transition connections to rigid barrier, and bridge anchorage assemblies as required by the Plans.

**538-2 Materials.**

**538-2.1 Planned Non-reusable Components:** The following items are considered planned non-reusable components and must be replaced with new components:

1. Timber posts
2. Timber offset blocks
3. End treatment assemblies
4. Approach transition connections to rigid barrier, including but not limited to panels, posts, hardware, offset blocks, etc.
5. Trailing end transition connections to rigid barrier
6. Bridge anchorage assemblies, including but not limited to panels, posts, hardware, offset blocks, etc.
7. Mounting hardware, including but not limited to nuts, bolts, washers, etc.
8. Any other items specified as non-reusable in the Plans

**538-2.2 Unforeseen Non-reusable Components:** During construction operations, the Engineer may deem other existing components, excluding planned non-reusable components, as unacceptable for re-use. Such components are considered unforeseen non-reusable components and require replacement with new components. Unforeseen non-reusable components will be compensated in accordance with 4-4.

Components damaged during construction operations are not considered unforeseen non-reusable components and must be replaced with new components at no cost to the Department.

**538-3 Construction Methods.**

Construct the reset guardrail in accordance with Section 536.

If the reset guardrail is to be placed in the same location as the previous installation, do not use the previous installation's in-ground post holes. Place the reset posts at the approximate midspan location of the previous installation. Backfill and thoroughly tamp the unused, in-ground holes at the previous post locations.

To accommodate the new post locations, field punch new post bolt slots in the reusable guardrail panels where needed. Meet the dimension and treatment requirements of the Design Standards and Section 536.

#### **538-4 Method of Measurement.**

The quantities paid for will be the plan length quantity, in linear feet, constructed, in place and accepted.

The plan length of a run of guardrail is measured end-to-end following the centerline of the panels, from the begin/end guardrail stations as defined in the Design Standards and specified in the Plans, including the end treatments and transition connections to rigid barrier lengths.

#### **538-5 Basis of Payment.**

Price and payment for resetting guardrail will be full compensation for all work specified in this Section, including the furnishing replacements for planned non-reusable components (excluding end treatment assemblies, approach transition connections to rigid barriers, and bridge anchorage assemblies) and installation of all required components as defined in the Design Standards. The price and payment will include any reduced post spacing, trailing end transition connections, shop-bent panels, and CRT post segments as defined in the Design Standards and shown in the Plans.

Price and payment for end treatment assemblies, approach transition connections to rigid barriers, and bridge anchorage assemblies will be as specified in Section 536.

Payment will be made under:

Item No. 538- 1-      Guardrail - Reset - per foot.