Florida Department of Transportation
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Tallahassee, FL 32399-0450

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GOVERNOR

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SECRETARY

STRUCTURES DESIGN BULLETIN 17-07
ROADWAY DESIGN BULLETIN 17-08
(FHWA Approved: June 19, 2017)

DATE: June 19, 2017

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Traffic Operations Engineers, District Structures Design Engineers, District Structures Maintenance Engineers, Plans Preparation Manual Holders, Structures Manual Holders

FROM: Robert V. Robertson, P.E., State Structures Design Engineer
Michael Shepard, P.E., State Roadway Design Engineer

COPIES: Brian Blanchard, Courtney Drummond, Tim Lattner, David Sadler, Rudy Powell, Amy Tootle, Daniel Scheer, Gregory Schiess, SDO Staff, Jeffrey Ger (FHWA)

SUBJECT: Requirements for Existing Traffic Railings

This bulletin introduces requirements in the ***Structures Design Guidelines*** and ***Plans Preparation Manual Volume 1*** for the treatment of existing bridge, approach slab and retaining wall mounted traffic railings in accordance with the MASH-16 Implementation Plan as stated in Roadway Design Bulletin 16-02. This bulletin also announces the development of and release schedule for ***Index 490*** Rectangular Tube Traffic Railing Retrofit and its associated instructions.

REQUIREMENTS

1. Add the following to ***Structures Design Guidelines*** Table 2.2-1 Miscellaneous Dead Loads:

ITEM	UNIT	LOAD
Rectangular Tube Retrofit (Index 490)	Lb/ft	30

2. Replace ***Structures Design Guidelines*** Section 6.7.1.A, Paragraphs 1, 2 and 3, and the associated Modifications for Non-Conventional Projects box with the following:

   A. Unless otherwise approved, all new bridge, approach slab and retaining wall mounted traffic railings, traffic railing/noise wall combinations and traffic railing/glare screen combinations proposed for use in new or temporary construction, resurfacing, restoration, rehabilitation (RRR) and widening projects must:

   1. For permanent installations:
      Projects let prior to July 1, 2018:
      Have been successfully crash tested to Test Level 4 (minimum), Test Level 5 or Test Level 6 (as appropriate) in accordance with ***LRFD*** and either ***NCHRP Report 350*** or ***MASH***.

Projects let July 1, 2018 and later:
Have been successfully crash tested in accordance with ***LRFD*** and ***MASH*** to:

- Test Level 3 (minimum for retrofits only that are not on Interstates or other high speed limited access facilities)
- Test Level 4 (minimum for all other installations)
- Test Level 5 or Test Level 6 (as appropriate).

2. For temporary installations shielding drop-offs:
   Projects let prior to January 1, 2020:
   Have been successfully crash tested to Test Level 3 (minimum) in accordance with ***LRFD*** and either ***NCHRP Report 350*** or ***MASH***.

   Projects let January 1, 2020 and later:
   Have been successfully crash tested to Test Level 3 (minimum) in accordance with ***LRFD*** and ***MASH***.

3. For temporary installations shielding work zones without drop-offs (45 mph or less design speed):
   Projects let prior to January 1, 2020:
   Have been successfully crash tested to Test Level 2 (minimum) in accordance with ***LRFD*** and either ***NCHRP Report 350*** or ***MASH***.

   Projects let January 1, 2020 and later:
   Have been successfully crash tested to Test Level 2 (minimum) in accordance with ***LRFD*** and ***MASH***.

Modification for Non-Conventional Projects:

Delete ***SDG*** 6.7.1.A Paragraphs 1, 2 and 3 and insert the following:

1. For permanent installations, have been successfully crash tested in accordance with ***LRFD*** and ***MASH*** to:
   - Test Level 3 (minimum for retrofits only that are not on Interstates or other high speed limited access facilities)
   - Test Level 4 (minimum for all other installations)
   - Test Level 5 or Test Level 6 (as appropriate).
2. For temporary installations shielding drop-offs, have been successfully crash tested to Test Level 3 (minimum) in accordance with ***LRFD*** and ***MASH***.
3. For temporary installations shielding work zones without drop-offs (45 mph or less design speed), have been successfully crash tested to Test Level 2 (minimum) in accordance with ***LRFD*** and ***MASH***.

3. Replace ***Structures Design Guidelines*** Section 6.7.1.B with the following:

   B. The traffic railings shown on ***Design Standards*** Indexes 420-425, 470-483, 5210 and 5211 have been determined to meet the ***NCHRP Report 350*** crashworthiness requirements for permanent installations as listed above. The traffic railings shown on ***Design Standards*** Indexes 426, 427, 428, 470-483, 490, 5210 and 5211 have been determined to meet the ***MASH*** crashworthiness requirements for permanent installations as listed above. Use these standard traffic railings for permanent installations on bridges and retaining walls as shown in ***PPM***, ***Volume 1*** unless approval to use a non-standard or modified traffic railing is obtained per ***SDG*** 6.7.2. The traffic railings shown on ***Design Standards*** Indexes 412 and 414 have been determined to meet the crashworthiness requirements for temporary installations as listed above. Use these standard traffic railings for temporary installations on bridges and retaining walls as shown on the standards.

4. Replace the title of ***Structures Design Guidelines*** Section 6.7.4 with the following:

   Existing Traffic Railings

5. Replace ***Structures Design Guidelines*** Section 6.7.4.A and the associated Modifications for Non-Conventional Projects box with the following:

   A. General

   1. FDOT promotes highway planning that replaces or upgrades traffic railing on existing bridges in order to meet current standards, or that at least increases the strength or expected crash performance of these traffic railings. FDOT has developed ***Design Standards***, Index 470 and 480 Series, Index 477 and Index 490 for retrofitting specific types of existing traffic railings with designs that have performed well in crash tests and are reasonably economical to install. Detailed instructions and procedures for the use of these ***Design Standards*** are included in the ***Instructions for Design Standards (IDS)***.

   2. Evaluate existing bridge, approach slab and retaining wall mounted traffic railings following the minimum requirements shown in Table 6.7.4-1 and replace or retrofit railings where specified. As used in Table 6.7.4-1, the terms “RRR Criteria” and “Widenings” refer to project level design criteria. Additionally, the requirements specified under the “Widening” headings apply to the existing traffic railings that will remain after the bridge and/or roadway is widened. The requirements for treating existing guardrail to bridge railing transitions specified in ***PPM*** Volume 1, Section 4.7.5 and/or pedestrian related requirements may necessitate retrofitting or replacing existing traffic railings beyond the minimum requirements specified in Table 6.7.4-1. Existing traffic railings must be in good condition for them to be left in place with no action required or where the railings are required to be retrofitted per Table 6.7.4-1. See ***PPM*** Volume 1, Section 4.7.4 for additional requirements.

Table 6.7.4-1 Treatment of Existing Traffic Railings

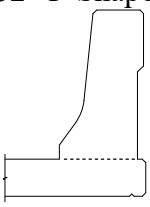
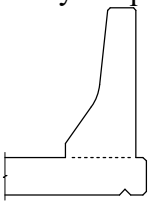
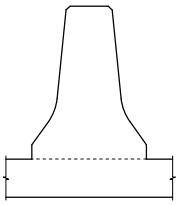
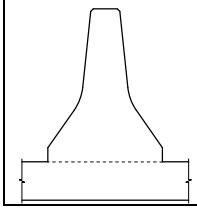
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
32” F-Shape  See ***IDS 402*** and ***Index 420*** for details 32” New Jersey Shape  See ***IDS 402*** for details	No action required.			On Interstates and other high speed limited access facilities, retrofit outside shoulder installations and back-to-back inside shoulder installations with more than a 2’-0” separation using ***Index 490***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***. No action required on all other facilities.
32” F-Shape Median  See ***Index 421*** for details 32” New Jersey Shape Median 	No action required.			

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

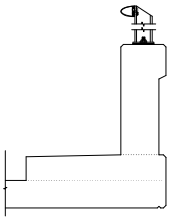
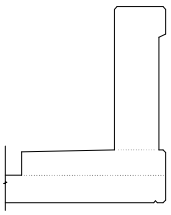
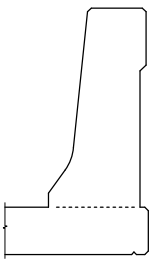
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
32" Vertical Shape with Pedestrian Railing at the back of raised sidewalks  See ***Index 423*** for details	Retrofit the joints/splices and ends of the Pedestrian Railing per the requirements stated in Section 4.7.4 above.		Retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	
42" Vertical Shape at the back of raised sidewalks  See ***Index 422*** for details	No action required for bridge traffic railing.		Retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	
42" F-Shape  See ***Index 425*** for details	No action required.			

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

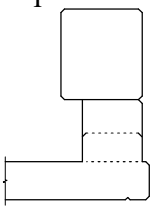
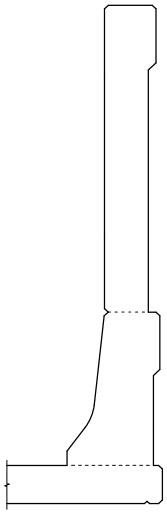
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
32” Corral Shape  See ***Index 424*** for details	No action required.			On Interstates and other high speed limited access facilities, retrofit outside shoulder installations and back-to-back inside shoulder installations with more than a 2’-0” separation using ***Index 490***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***. No action required on all other facilities.
8’ Traffic Railing/Noise Wall  See ***Index 5210*** for details	No action required.			

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

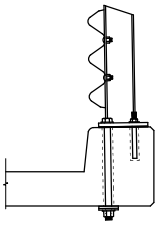
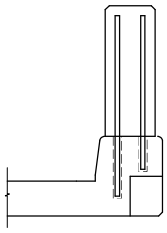
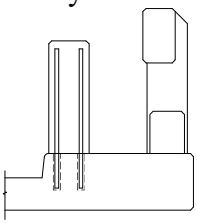
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
Thrie Beam Retrofit  See ***Index 470 Series*** for details (curb width varies)	No action required.			On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428*** or ***5210***. No action required on all other facilities.
34" Vertical Face Retrofit  See ***Index 480 Series*** for details (curb width varies) Concrete Safety Barrier  See ***1987*** thru ***2000 Roadway and Traffic Design Standards Index 401*** Schemes 1 and 19 for details	No action required.			On Interstates and other high speed limited access facilities, retrofit outside shoulder installations and back-to-back inside shoulder installations with more than a 2'-0" separation using ***Index 490***; or replace with ***Index 426***, ***427***, ***428*** or ***5210.*** No action required on all other facilities.

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

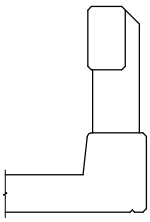
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
Narrow and Recessed Curb Continuous Post and Beam  See ***IDS 404*** for details	No action required if all of the following three criteria are met: • there is no crash history or evidence of any impact • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged Otherwise, retrofit with ***Index 470 Series***, ***477*** or ***480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	Retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Indexes 426***, ***427***, ***428*** or ***5210***. On all other facilities, no action required if all of the following three criteria are met: • there is no crash history or evidence of any impact • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged Otherwise, retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428*** or ***5210***. On all other facilities, retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

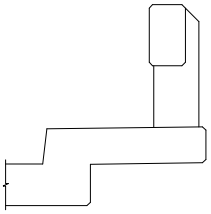
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
Wide Curb Continuous Post and Beam  See ***IDS 405*** for details	No action required if all of the following three criteria are met: • there is no crash history or evidence of any impact • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged Otherwise, retrofit with ***Index 470 Series or 480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***Index 423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	Retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Indexes 426***, ***427***, ***428*** or ***5210***. On all other facilities, retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

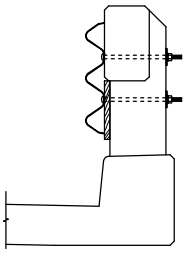
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
Narrow and Recessed Curb Continuous Post and Beam w/ Thrie Beam Overlay Retrofit  See ***IDS 404*** and ***IDS 477*** for details	No action required if all of the following three criteria are met: • there is no crash history or evidence of any impact • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged Otherwise, retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***Index 423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	Retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428*** or ***5210***. On all other facilities, no action required if all of the following three criteria are met: • there is no crash history or evidence of any impact • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged Otherwise, retrofit with ***Index 470 Series***, ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428*** or ***5210***. On all other facilities, retrofit with ***Index 470 Series*** or ***480 Series***; or replace with ***Index 426***, ***427***, ***428*** or ***5210***.

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

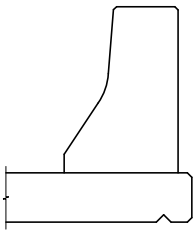
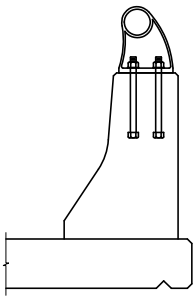
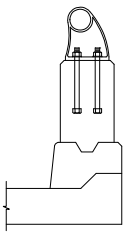
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
27" New Jersey Shape without metal railing  27" New Jersey Shape with discontinuous metal railing  25" Vertical Shape w/ Discontinuous Metal Rail 	Retrofit with Elliptical / Rectangular Tube & Posts; or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428 or 5210***. Contact SDO for details of the Elliptical / Rectangular Tube & Posts Retrofit.		Retrofit with Elliptical / Rectangular Tube & Posts; or replace with ***Index 426***, ***427***, ***428*** or ***5210***. Contact SDO for details of the Elliptical / Rectangular Tube & Posts Retrofit.	

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

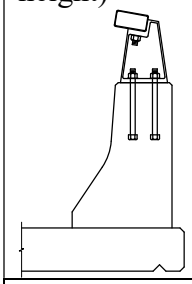
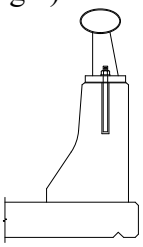
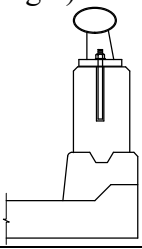
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
27" New Jersey Shape with continuous metal railing (39" min. total height) 	No action required.		Retrofit with Elliptical / Rectangular Tube & Posts; or replace with ***Index 426***, ***427***, ***428*** or ***5210***. Contact SDO for details of the Elliptical / Rectangular Tube & Posts Retrofit.	
27" New Jersey Shape w/ Elliptical Tube Retrofit (39" min. total height)  25" Vertical Shape w/ Elliptical Tube Retrofit (36" min. total height) 	No action required.			

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

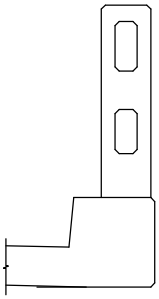
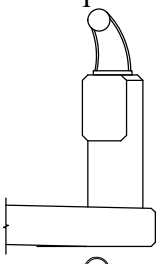
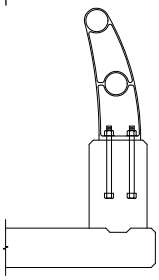
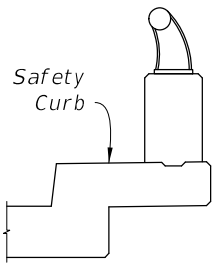
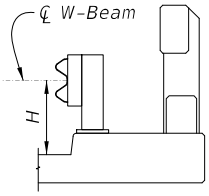
Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
Discontinuous Concrete Post and Beam  Concrete Parapet or Post and Beam with Metal Posts and Pipes   Any railing with a "safety curb" 	Retrofit with ***Index 470 Series*** (if applicable) or ***480 Series*** (if applicable); or replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428 or 5210***.		On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428*** or ***5210***. On all other facilities, retrofit with ***Index 470 Series*** (if applicable) or ***480 Series*** (if applicable); or replace with ***Index 426***, ***427***, ***428*** or ***5210***.	

Table 6.7.4-1 Treatment of Existing Traffic Railings (cont.)

Existing Traffic Railing	Required Minimum Treatment of Existing Traffic Railing Installations			
	Design Speed ≤ 45 mph		Design Speed ≥ 50 mph	
	RRR criteria	Widenings (Treatment of remaining railing)	RRR criteria	Widenings (Treatment of remaining railing)
W-Beam Guardrail Continuous Across Bridge  See ***1987*** thru ***2000 Roadway and Traffic Design Standards Index 401*** Scheme 16 for details	No action required if all of the following five criteria are met: • there is no history of severe crashes at the site • no structural work is being performed on the bridge • the approach roadway alignment or cross section are to remain unchanged • dimension "H" is ≥ 1'-8" and ≤ 1'-10" (see figure) • the Approach Transition is in accordance with ***2013 Design Standards Index 403*** Otherwise, replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428, 470 Series***, ***480 Series***, or ***5210***.	Replace with ***Index 422*** (with raised sidewalk), ***423*** (with raised sidewalk), ***426***, ***427***, ***428***, ***470 Series***, ***480 Series*** or ***5210***.	On Interstates and other high speed limited access facilities, replace with ***Index 426***, ***427***, ***428***, or ***Index 5210***. On all other facilities, replace with ***Index 426***, ***427***, ***428, 470 Series***, ***480 Series*** or ***Index 5210***.	

Modification for Non-Conventional Projects:
Delete ***SDG*** 6.7.4.A.2 and Table 6.7.4-1 and see the RFP for requirements.

6. Replace the second paragraph of ***Structures Design Guidelines*** Section 6.7.4.C with the following:

   The Thrie Beam Guardrail Retrofit and Vertical Face Retrofit ***Design Standards***, Index 470 and 480 Series, respectively, are suitable for retrofitting specific types of obsolete structure mounted traffic railings that incorporate curbs. The Rectangular Tube Retrofit ***Design Standards*** Index 490 is suitable for retrofitting New Jersey Shape, F-Shape, Corral Shape and certain Vertical Shape structure mounted traffic railings. These retrofits provide a more economical solution for upgrading obsolete traffic railings when compared with replacing the obsolete traffic railings and portions of the existing bridge decks or walls that support them. Detailed guidance and instructions on the design, plans preparation requirements and use of these retrofits are included in the ***Instructions for Design Standards (IDS)***.

7. Add the following new subsection title at the beginning of ***Structures Design Guidelines*** Section 6.7.4.D:

   1. ***Design Standards*** Indexes 470 and 480 Series

8. Add the following new subsection and title at the end of ***Structures Design Guidelines*** Section 6.7.4.D:

   2. ***Design Standards*** Index 490

   Existing bridge decks and walls that will support a ***Design Standards*** Index 490 traffic railing retrofit are considered to be structurally adequate to resist vehicular impact loads on the traffic railing and are not required to be structurally evaluated.

9. Add the following to ***Structures Design Guidelines*** Section 9.2.2.E.1:

Rectangular Tube Retrofit (Index 490)	$100

10. Replace ***Plans Preparation Manual***, ***Volume 1***, Section 4.7.4 with the following:

4.7.4 Existing Bridge Traffic Railing

Evaluate bridge traffic and pedestrian railings for conformance to current criteria and standards whenever any improvements are made to any bridge or its approach roadway. Existing bridge traffic and pedestrian railings must meet current standards, be retrofitted to bring them up to current standards, or be replaced. Otherwise, a Design Variation must be obtained for the project, providing that railing replacement or retrofit, or entire bridge replacement, is scheduled within a reasonable time. See ***SDG*** 6.7 for traffic railing requirements, and ***SDG*** 6.8 and the following for pedestrian railing requirements.

Remove existing fences other than those in compliance with ***Design Standards, Indexes 810*** or ***812***, and existing pedestrian railings that are mounted on existing traffic railings located between the shoulder and the sidewalk (a.k.a. "inboard" traffic railings). Replace or retrofit the existing pedestrian railing or fence rather than completely removing it if there is a documented issue of traffic incidents involving pedestrians (at the site before installation of the existing pedestrian railing or fence on the inboard traffic railing) that would likely reoccur if the existing installation were to be removed. Use ***Design Standards, Indexes 810*** or ***812***, or another crashworthy pedestrian railing or fence that is compatible with the traffic railing, as appropriate. Retrofit existing bullet-type railings that are to remain on inboard traffic railings and that do not have the bullet railing member(s) oriented towards the traffic side of the railing to match ***Design Standards***, ***Index 821***.

Retrofit existing installations of ***Design Standards***, ***Index 821***, and other similar bullet-type railings, on all traffic railings to include rail splice assemblies and tapered end transitions as shown on ***Design Standards, Index 822*** if they are not present. Retrofit the ends of other existing crashworthy traffic railing mounted pedestrian railings to include a similar tapered end transition, or other appropriate approach end transition, if one is not present.

11. ***Index 490*** Rectangular Tube Traffic Railing Retrofit and its associated instructions are being developed for retrofitting existing F-Shape, New Jersey Shape and Corral Shape traffic railings, Vertical Shape traffic railing retrofits. ***Index 490*** and its instructions will be issued with the ***FY 2018-2019 Standard Plans for Bridge Construction***. Cross sections through applicable traffic railings and criteria for determining the limiting stations of Index 490 are shown in Attachment "A". When using ***Index 490***, include the following note in the Plans to designate the location(s) and limiting stations for the construction of the retrofit on a given existing traffic railing:

    "Construct Traffic Railing (Rectangular Tube Retrofit), Index 490, from Sta. XX+XX.XX (at or near Begin Bridge or Retaining Wall) to Sta. XX+XX.XX (at or near End Bridge or Retaining Wall)."

COMMENTARY

The ***Design Standards*** Index numbers and ***PPM*** cross references listed in this bulletin will be revised in accordance with Roadway Design Memorandum 17-01 / Structures Design Memorandum 17-01 prior to the requirements of this bulletin being merged into the 2018 ***Structures Manual*** and 2018 ***FDOT Design Manual***.

IMPLEMENTATION

These requirements are effective immediately on all design-bid-build projects with letting dates after June 2018 and all other design-bid-build projects at 60% plans or less. These requirements may be implemented immediately on other design-bid-build projects at the discretion of the District.

These requirements are effective immediately on all design-build projects for which the advertisement has not been released. Design-build projects for which the advertisement has been released are exempt from these requirements unless otherwise directed by the District.

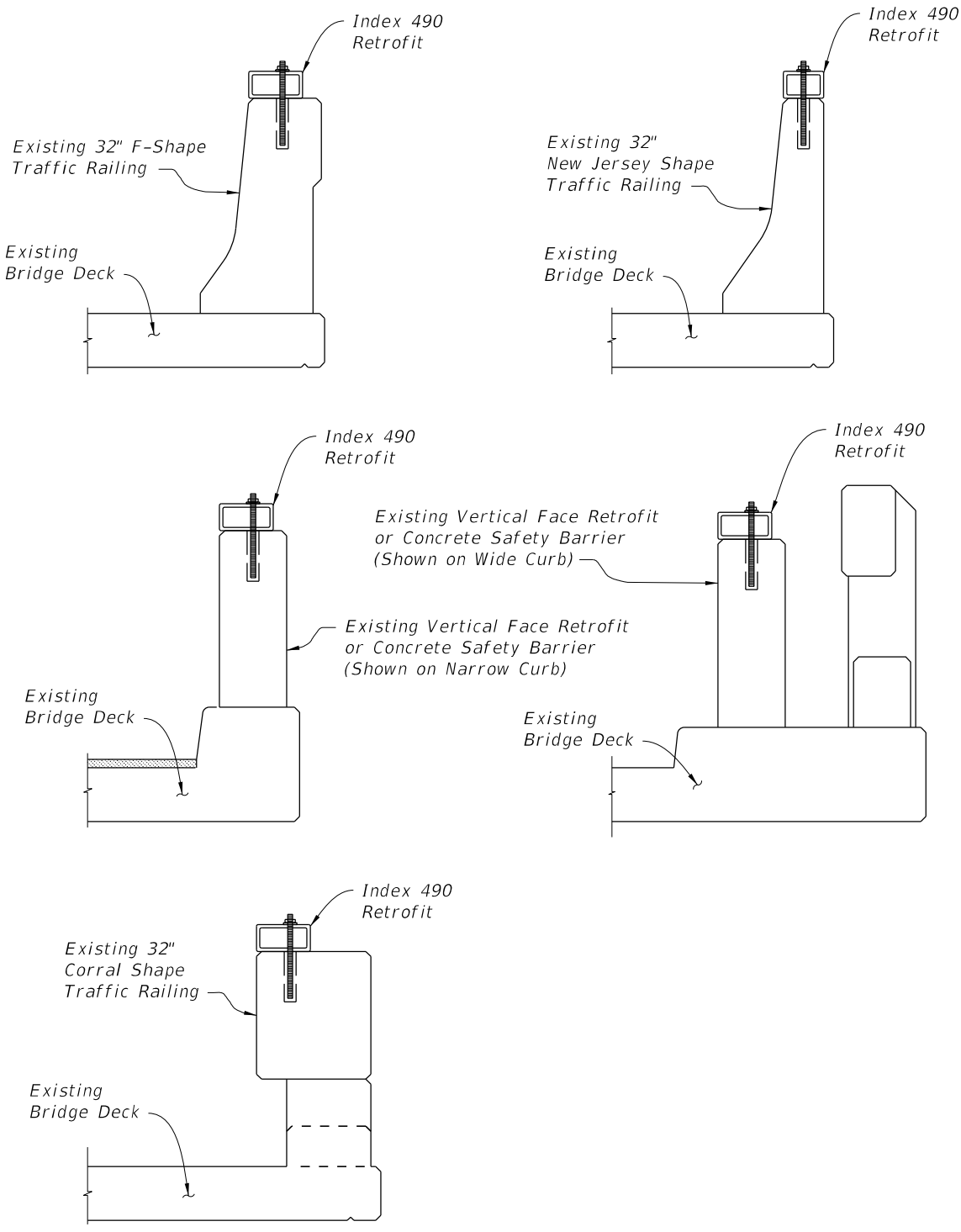
CONTACT

Charles Boyd, P.E.
Assistant State Structures Design Engineer
Phone (850)-414-4275
charles.boyd@dot.state.fl.us

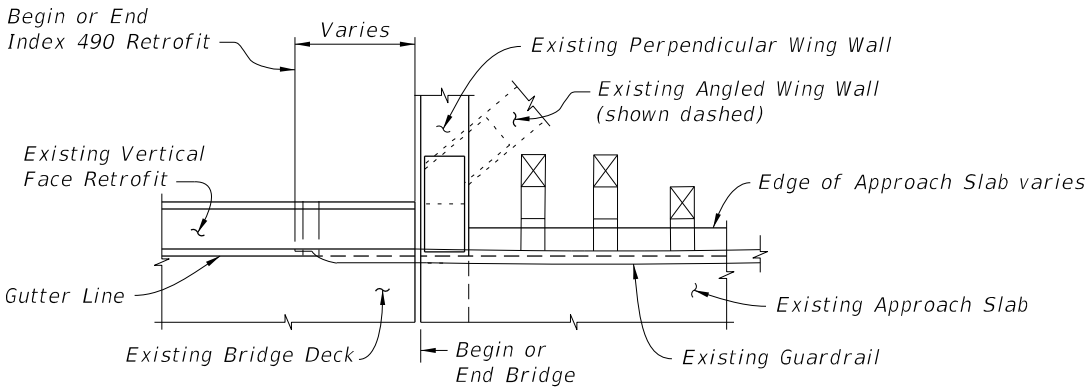
RVR/CEB

Attachment

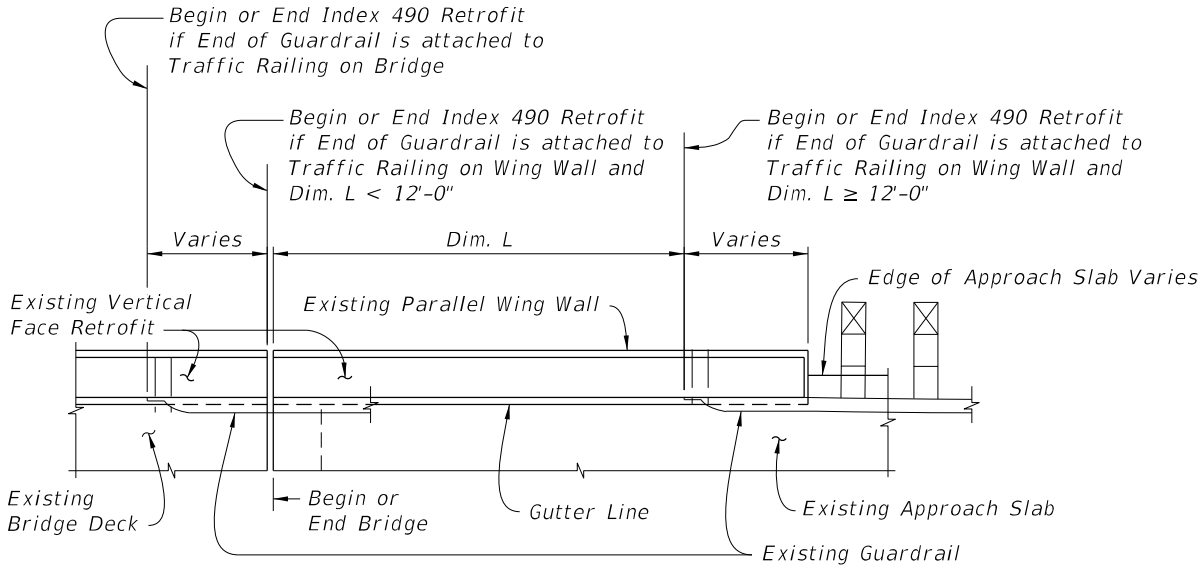
Attachment “A”



SECTIONS THRU EXISTING TRAFFIC RAILINGS SHOWING
INSTALLATION OF AN INDEX 490 RETROFIT
(Bridge Decks Shown; Approach Slabs and Retaining Walls Similar)

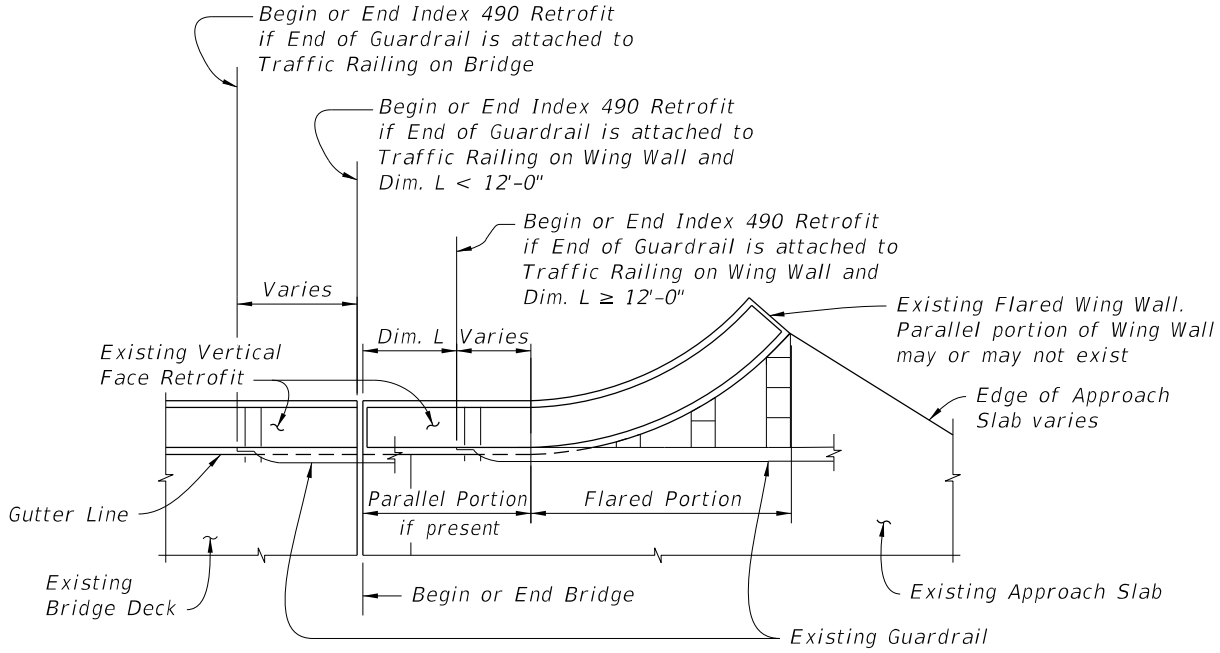


PARTIAL PLAN VIEW OF EXISTING BRIDGE WITH PERPENDICULAR OR ANGLED WING WALLS

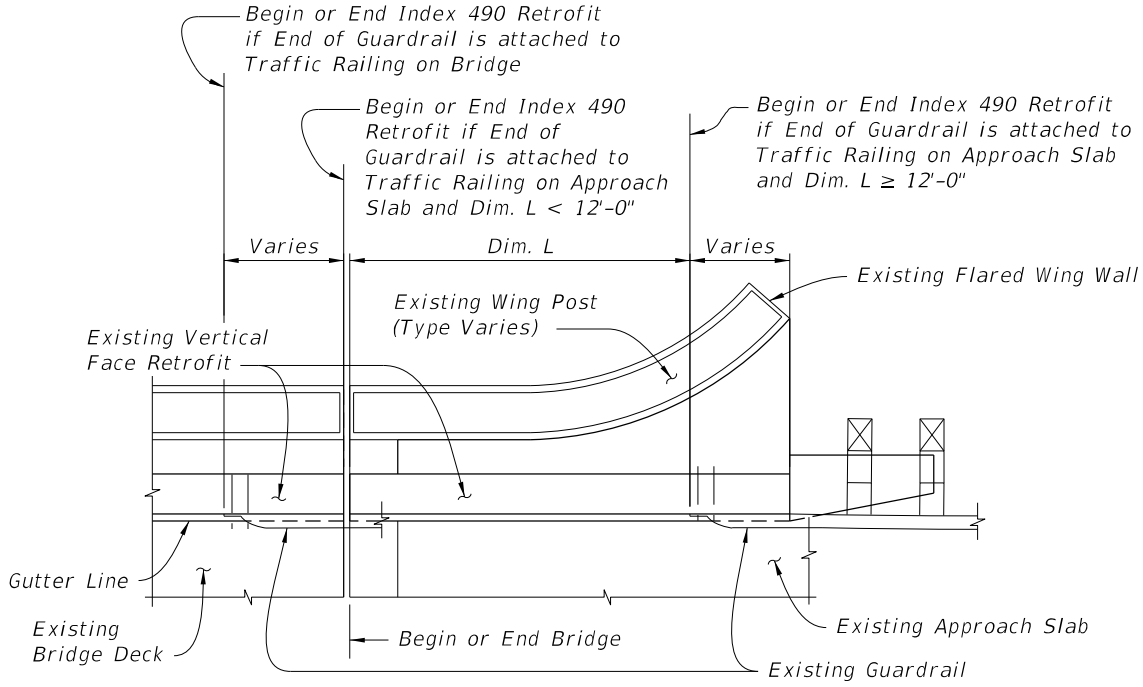


PARTIAL PLAN VIEW OF EXISTING BRIDGE WITH PARALLEL WING WALLS

PARTIAL PLAN VIEWS OF EXISTING BRIDGES WITH INDEX 480 SERIES TRAFFIC RAILING (VERTICAL FACE RETROFIT) OR INDEX 401 CONCRETE SAFETY BARRIER
(Vertical Face Retrofit and Narrow Curb shown; Concrete Safety Barrier and Intermediate and Wide Curbs similar)

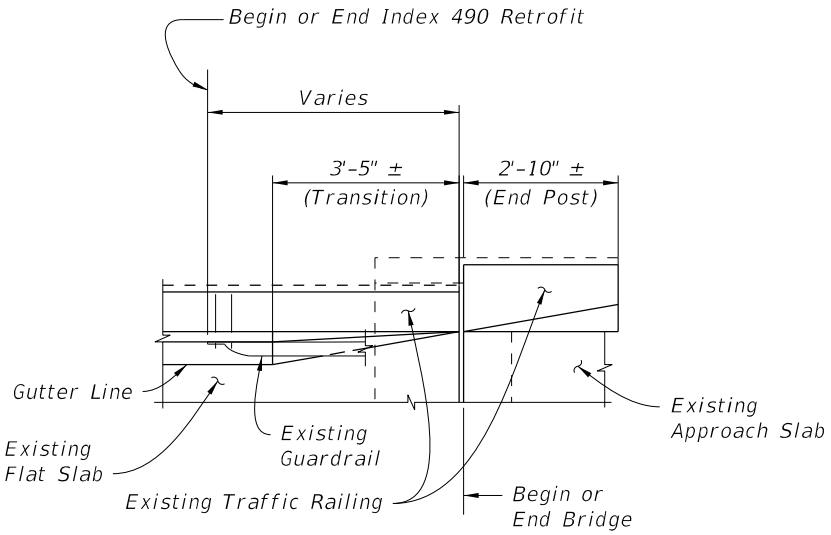


PARTIAL PLAN VIEW OF EXISTING BRIDGE WITH NARROW OR INTERMEDIATE CURBS AND FLARED WING WALLS

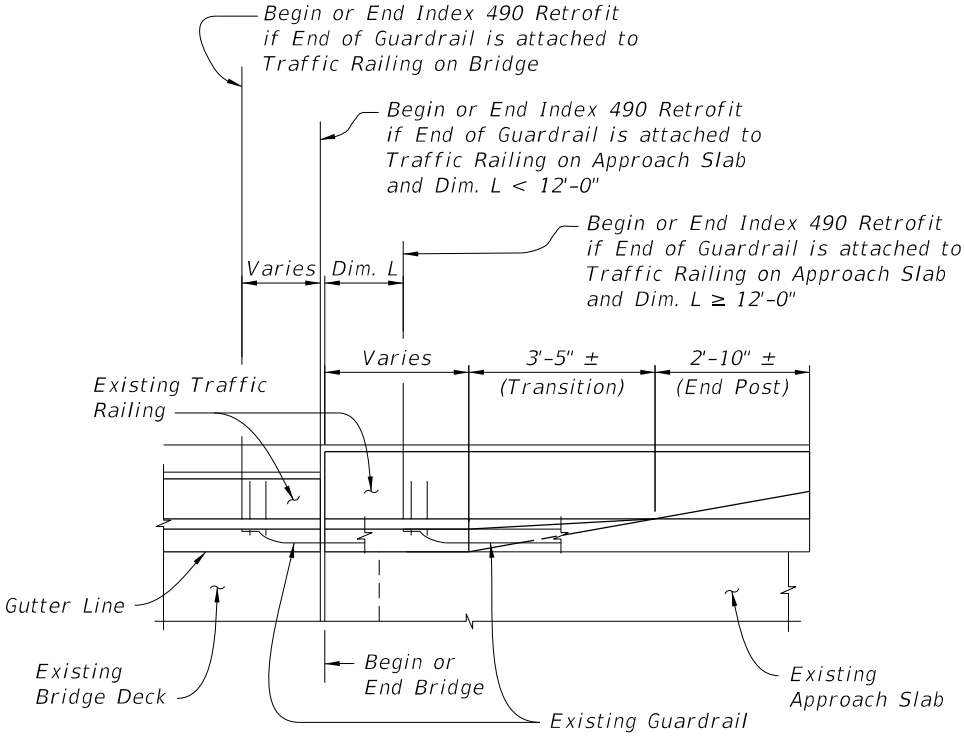


PARTIAL PLAN VIEW OF EXISTING BRIDGE WITH WIDE CURB AND FLARED WING WALLS

PARTIAL PLAN VIEWS OF EXISTING BRIDGES WITH INDEX 480 SERIES TRAFFIC RAILING (VERTICAL FACE RETROFIT) OR INDEX 401 CONCRETE SAFETY BARRIER (Vertical Face Retrofit shown, Concrete Safety Barrier similar)

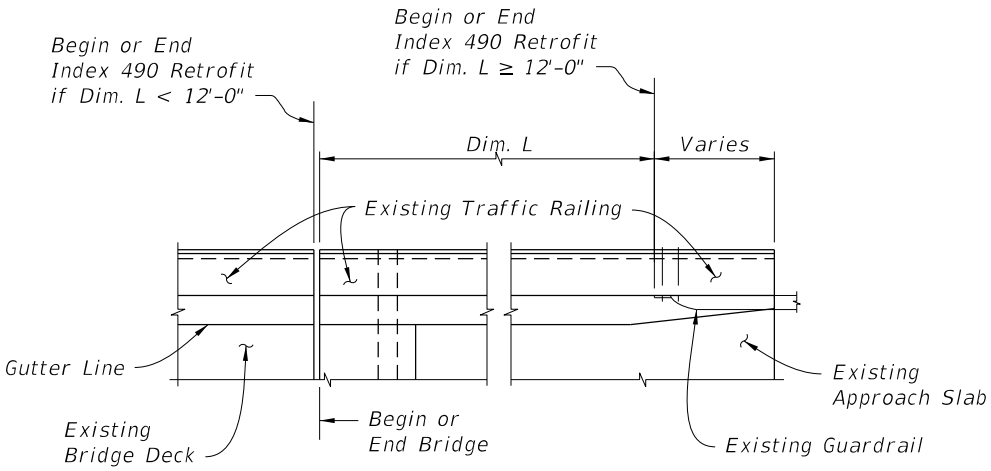


FLAT SLAB TYPE BRIDGES

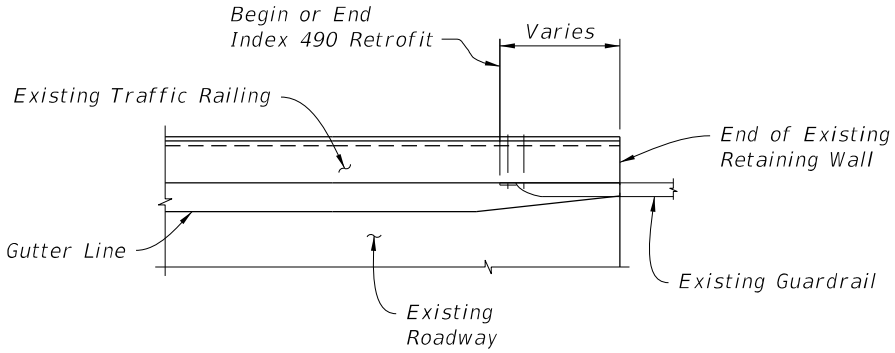


BEAM OR GIRDER TYPE BRIDGES

PARTIAL PLAN VIEWS OF EXISTING BRIDGES WITH 32" NEW JERSEY OR F-SHAPE TRAFFIC RAILINGS THAT ARE MOUNTED ON END BENTS AND/OR WING WALLS AT BRIDGE ENDS



PARTIAL PLAN VIEW OF EXISTING BRIDGE WITH APPROACH SLAB MOUNTED F-SHAPE TRAFFIC RAILING WITH GUARDRAIL CONNECTIONS
(32" F-Shape Railing Shown; 32" New Jersey Railing Similar)



PARTIAL PLAN VIEW OF EXISTING RETAINING WALL WITH F-SHAPE TRAFFIC RAILING WITH GUARDRAIL CONNECTIONS
(32" F-Shape Railing Shown; 32" New Jersey Railing Similar)

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

RACHEL D. CONE
INTERIM SECRETARY

MEMORANDUM

DATE: April 20, 2017

TO: Gevin McDaniel, Jeremy Fletcher, Rhonda Taylor, Paul Hiers, and Carlton Spirio

FROM: Michael A. Shepard, P.E., State Roadway Design Engineer

COPIES: Tim Lattner, Shawn Trotman

SUBJECT: Delegation of Signature Authority

The following list establishes priority for signature authorization in the absence of the State Roadway Design Engineer. This authorization includes all documents requiring the signature of the State Roadway Design Engineer.

1. Gevin McDaniel, P.E., Roadway Design Standards Administrator
2. Jeremy Fletcher, P.E., Roadway Quality Assurance Administrator
3. Rhonda Taylor, P.E., State Pavement Design Engineer
4. Paul Hiers, P.E., Roadway Design Criteria Administrator
5. Carlton Spirio, P.E., State Drainage Engineer

This memo supersedes any previous signature authorizations for the State Roadway Design Engineer and shall remain in effect until rescinded by me.

MAS/st