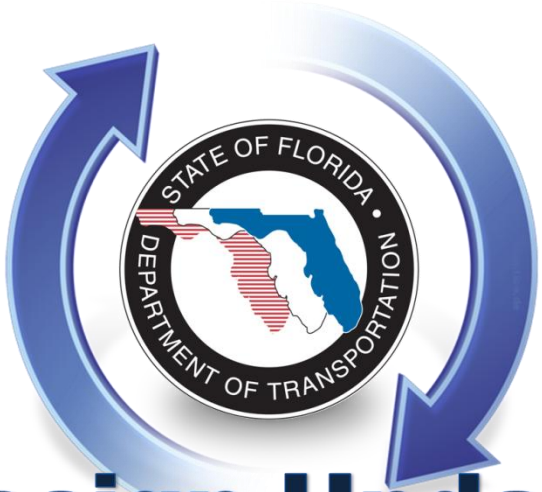
Design Standards Update 2014 eBooklet



Design Update Training

Darren Martin

Design Standards Specialist

Darren.Martin@dot.state.fl.us

NEW FOR 2014

Criteria and Standards

Roadside Barriers

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Roadway Design http://www.dot.state.fl.us/rddesign/cs/cs.shtm

Roadway Design / Criteria and Standards

Criteria and Standards

Topics

- Bicycle and Pedestrians
- Design Bulletins
- Florida Greenbook
- Florida Intersection Design Guide
- Lighting
- Maintenance of Traffic
- Plans Preparation Manual
- Roadside Barriers
- Signalization and ITS
- Signing and Pavement Marking

Other Links of Interest

- ADA Public Rights of Way
- Construction Office
- Design Standards
- Drainage Section
- Driveway Information Guide - 2008
- Engineering CADD (ECSO)
- MUTCD
- Specifications - Estimates
- Structures Design Office
- Traffic Engineering Office
- Transit Design Handbook
- Traffic Engineering Manual
- Utilities Section

Contact Us

Roadway Design Administrator	Sullivan, Frank	**(850) 414-4324**
Maintenance of Traffic Specialist	Benghuzzi, Ezzeldin	(850) 414-4352
Design Manuals Manager	Gerrell, Benjamin	(850) 414-4318
Traffic Standards Manager	Henson, Chester	(850) 414-4117
Design Manual Engineer	Irizarry, Maria	(850) 414-4317
Special Projects Coordinator	Koos, Mary Anne	(850) 414-4321
Traffic Standards Engineer	Lewis, Christopher	(850) 414-4339
Design Standards Specialist	Martin, Darren	(850) 414-4824
Design Standards Manager	Mauthner, John	(850) 414-4334
Design Standards Engineer	Overton, Patrick	(850) 414-4348
Special Projects Engineer	Prytyka, Gregory	(850) 414-4792

Many links on our site are PDF files and best viewed with Adobe Acrobat Reader

Contact Us | Employment | MyFlorida.com | Performance | Statement of Agency | Web Policies & Notices

Design Update Training

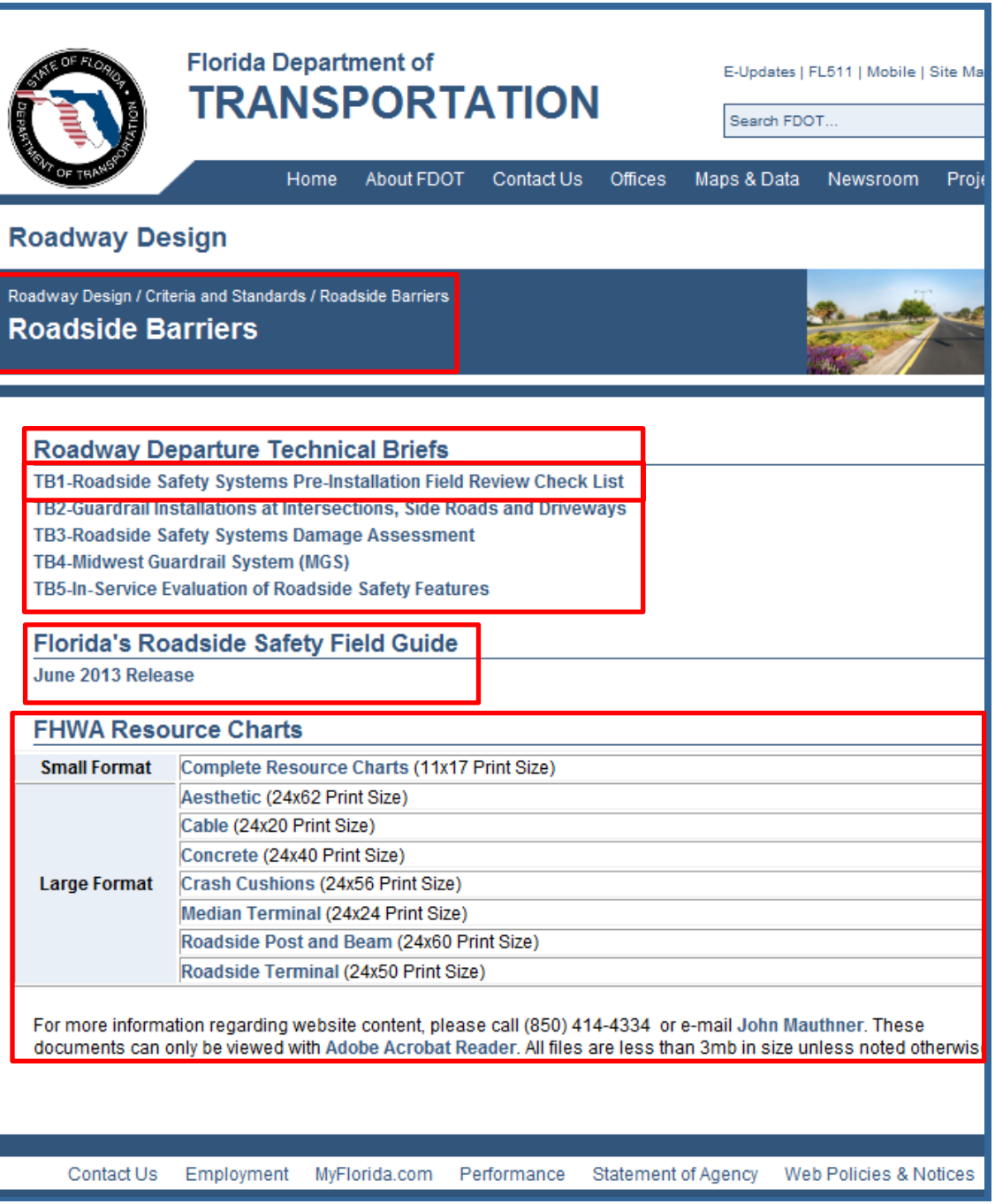
NEW FOR 2014

Roadside Barriers

Roadway Departure Technical Briefs

Florida's Roadside Safety Field Guide

FHWA Resource Charts



NEW FOR 2014

Roadway Departure Technical Briefs

Design

Objective

Methodology

Roadway Departure Technical Brief No. 1

Roadside Safety Systems Pre-Installation Field Review Check List

CATEGORY: Design

ISSUE: When roadside safety systems such as traffic barriers and terminals are installed exactly as shown on project plans or replaced in-kind after a crash, the end result can be an installation that may not effectively shield the primary hazard, may be too short or too long, may not shield obvious "secondary" hazards in its immediate vicinity, or may not be needed at all.

OBJECTIVE: Provide guidelines to enable a pre-installation review team to recognize and make needed adjustments to the design to guarantee an optimal installation.

METHODOLOGY: The pre-installation review team should conduct a field review of each planned installation and consider, at a minimum, the issues and factors described below. After these issues and factors have been considered, the review team should document any findings, including justification for any recommended modifications to the design, and process them through existing agency procedures. For additional information please see the FHWA website at http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/ and AASHTO's Task Force 13 website at www.aashtotf13.org.

Design Update Training

DRIVING DOWN FATALITIES

U.S. Department of Transportation
Federal Highway Administration

NEW FOR 2014

Roadway Departure Technical Briefs

Need

Placement

Length

EXPECTED RESULTS:

Barrier installations that are warranted, effectively shield all pot
terminals selected and located to minimize occupant injuries if

The pre-installation field review should consider the following issues:

Need, Placement, and Length

- Installing and maintaining roadside safety systems can be costly and, if installed incorrectly, can become an additional hazard in a serious crash, as shown in Photograph A. If running off the roadway at that location is clearly less hazardous than striking a guardrail, or if the hazardous feature can be removed, relocated, or redesigned, barrier should not be used. Be certain there is a clear and justifiable barrier warrant before installing guardrail.
- The clear zone distances used by most State DOTs to determine if a hazard warrants shielding are minimum distances based on relatively limited data. While there are hazards adjacent to virtually every roadway, special attention should be given to man-made fixed objects such as bridge piers, culverts, and large sign or light supports. Such fixed objects may be considered for shielding if there is a reasonable expectation that an errant motorist may strike them even if they are outside the design clear zone. Some agencies measure the clear zone from the edge of the nearest through traffic lane. Thus, bridge piers next to auxiliary lanes (Photograph B) are often left unshielded – in spite of the fact that vehicle speeds may equal through lane speeds and traffic conflicts are more likely because of slowing and/or merging traffic.
- To check the barrier length of need (LON) in the field, one need only pace off the appropriate distance (starting on the shoulder opposite the upstream edge of the hazard), then turn and look at the back of the hazard. If the barrier intersects this line of sight the LON is probably adequate. The barrier shown in Photograph C may be longer than needed since the area behind the bridge pier is traversable.
- When verifying the correct LON required to shield a primary hazard, one must note other significant hazards immediately in the vicinity of the barrier terminal that could be effectively shielded by extending the barrier. While such secondary hazards (such as the concrete footing in Photograph D) may not normally warrant shielding on their own, it is best to avoid a situation where a motorist strikes an end terminal and is then seriously injured in a collision with a secondary hazard that could easily have been shielded. Judgment must be used where these secondary hazards (such as a solid line of trees, which would not normally be shielded) extend a significant distance upstream from the primary hazard.
- Before barrier layout is finalized, all underground utilities must be located and marked, especially in areas where there are street lights, traffic signals,

A

B

C

D

Design Update Training

NEW FOR 2014

Roadway Departure Technical Briefs

Topography

End Terminals

zards and have
d.

and electrical/gas lines to residences. The location of any such utilities may require modifications to barrier placement or design, such as lateral placement or post location adjustments. If modifications are necessary, it is critical that the barrier effectively shield the hazard and still function as intended.

Topography

- State DOT policy is typically to design each barrier installation based on the lateral distance to the back of the identified hazard and the appropriate length based on traffic volume and design speed. This procedure, however, assumes a relatively flat and traversable area from the point where a vehicle leaves the roadway to the back side of the hazard. As shown in Photograph E, many barrier runs intended to shield steep embankments are too short to do so effectively.

- For best performance when struck, an impacting vehicle must be stable at the moment of impact. When barrier is placed down a slope, a vehicle leaving the roadway at speed will become partially airborne and may strike the barrier too high. Rather than be redirected by the guardrail, the vehicle may override it and strike whatever object the barrier was intended to shield. Full-scale tests have resulted in specific guidelines for placing barriers on slopes. These must be followed if the guardrail is to function as intended. Transitioning a barrier from one side of a median to the other (Photograph F) can result in a section that is too low relative to the roadway.

- Installing guardrail behind curbs creates a concern similar to installing barrier on a slope. Because curbs do not have significant redirection capabilities, tire impact with a curb tends to raise a vehicle's bumper height, again resulting in a higher-than-normal impact into a guardrail. If the barrier is installed with its face directly above the curb and is stiffened to limit its deflection when struck, a curb/barrier combination poses only a slight risk of an override. However, installing a W-beam guardrail beyond a 6-inch concrete curb, as shown in Photograph G, is an invitation to an override. Of greater concern, however is the actual need for any barrier at this particular location.

End Terminals

- There are two basic terminal designs in use at present: non energy-absorbing, and energy-absorbing. Non energy-absorbing designs do not significantly reduce vehicle speed in a near end-on hit. They are best specified when there is a clear and traversable area behind them parallel to the guardrail installation, such as is often found in a freeway median. Energy-absorbing terminals have been shown to stop an impacting vehicle in about 50 feet when struck end-on and thus are best suited to locations that do not have much traversable area behind the barrier installation. A non-energy absorbing terminal should not be used directly in front of a fixed object as seen in Photograph H.

E

F

G

H

Design Update Training

NEW FOR 2014

Roadway Departure Technical Briefs

Documentation

- A terminal struck by a stable vehicle, i.e., a vehicle that has its suspension neither compressed nor extended and has minimal roll, pitch, and yaw angles, will result in the best terminal performance possible. If a graded terminal "platform" was constructed, it must be smoothly blended into the existing roadside embankment so a motorist has an opportunity to return to the roadway without striking the terminal or losing control of the vehicle by dropping off the edge of a platform like the one shown in Photograph I. Many grading platforms can be eliminated either by extending the barrier a short distance to reach a flatter roadside area or reduced in size by specifying a non-flared end treatment to reduce the required width of the platform.

I

- Impacting a terminal, even when it is installed on flat ground, induces some instability in most vehicles. When the area immediately behind a terminal is steep or non-traversable, a vehicle can overturn after breaking through the terminal. A minimal traversable runout area behind the terminal is an essential part of good barrier design. A field check to determine if a minimal runout area exists is to see if a passenger-type vehicle can be safely driven and parked behind the terminal, parallel to the barrier. If so, one may assume that a minimal runout area is available. Another check is to observe whether or not the area behind the terminal is at least as clear and unobstructed as the unshielded area immediately upstream of the terminal. If not, extending the barrier a greater distance may be warranted. In Photograph J, the area beyond the terminal is readily traversable but the length of need (LON) may be excessive.

J

- The terminals shown in Photographs K and L is an energy absorbing design, but any impact into the end at an angle will most likely lead quickly to a secondary impact into the water behind it. This barrier was installed primarily to shield a structure and is effective for that purpose, but it should have been designed to keep motorists out of the canal as well. In this case, the LON may be too short.

K

L

Documentation

Review findings should be documented in writing and signed by all members of the review team. Minor revisions can be processed through the project contract procedures. Major modifications (e.g., a different barrier type than originally specified) can also be processed through existing agency procedures but should be extremely rare.

NEW FOR 2014

Roadside Barriers

Florida's Roadside Safety field Guide

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Ma

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Proje

Roadway Design

Roadway Design / Criteria and Standards / Roadside Barriers

Roadside Barriers

Roadway Departure Technical Briefs

TB1-Roadside Safety Systems Pre-Installation Field Review Check List
TB2-Guardrail Installations at Intersections, Side Roads and Driveways
TB3-Roadside Safety Systems Damage Assessment
TB4-Midwest Guardrail System (MGS)
TB5-In-Service Evaluation of Roadside Safety Features

Florida's Roadside Safety Field Guide

June 2013 Release

FHWA Resource Charts

Small Format	Complete Resource Charts (11x17 Print Size)
Large Format	Aesthetic (24x62 Print Size)
	Cable (24x20 Print Size)
	Concrete (24x40 Print Size)
	Crash Cushions (24x56 Print Size)
	Median Terminal (24x24 Print Size)
	Roadside Post and Beam (24x60 Print Size)
	Roadside Terminal (24x50 Print Size)

For more information regarding website content, please call (850) 414-4334 or e-mail John Mauthner. These documents can only be viewed with Adobe Acrobat Reader. All files are less than 3mb in size unless noted otherwise

Contact Us | Employment | MyFlorida.com | Performance | Statement of Agency | Web Policies & Notices

Design Update Training

NEW FOR 2014

Florida's

Roadside Safety Field Guide

Guidelines for the Installation and Maintenance of Roadside Safety Hardware.

June 2013

Design Update Training

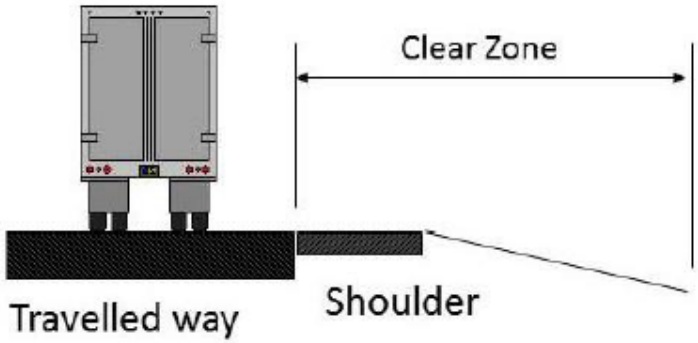
NEW FOR 2014

Florida's Roadside Field Guide

Clear Zone

Clear Zone

The term "**clear zone**" is used to designate an area bordering the roadway, starting at the edge of the traveled way, which is available for safe use by errant vehicles. Safe use generally means the slope is flat enough and free of fixed object hazards so a motorist leaving the road is able to stop and return to the roadway safely.



The clear zone distances shown below represent minimum recommended distances and are based on limited data. The best answer to the question "How wide should the clear zone be ?" is "As wide as practical in each situation – but at least as wide as the distances, shown in the Table below".

Clear Zone for Recoverable Terrain

Design Speed (mph)	Greater than 1500ADT		Less than 1500ADT	
	Travel Lanes and Multilane Ramps (feet)	Auxiliary Lanes & Single Lane Ramps (feet)	Travel Lanes & Multilane Ramps (feet)	Travel Lanes & Multilane Ramps (feet)
less than 45 mph	18	10	16	10
45 mph	24	14	20	14
50 mph	24	14	20	14
55 mph	30	18	24	14
greater than 55 mph	36	24	30	18

NEW FOR 2014

Florida's Roadside Field Guide

Semi-Rigid Systems

Semi-Rigid Systems:

- Strong-Steel or Wood Post W-Beam with wood or plastic block-outs

  Test Level: NCHRP 350/MASH TL-3

  Post: W6 x 9 or W6 x 8.5 x 6.5 ft. Steel or timber post

  Post Spacing: 6′-3″

  Block-outs: 6″ wide x 8″ x 14″ routed (w/steel post) timber or plastic block-outs. Double block-outs can be used.

- Thrie Beam with wood or plastic block-outs

  Test Level: NCHRP 350 TL-3

  Post: W6 x 9 or W6 x 8.5 x 6′-6″ Steel Post

  Post Spacing: 6′-3″

  Block-outs: 6″ wide x 8″ x 21.75″ routed timber or plastic block-outs can be used.

- Modified Thrie-beam with steel block-outs

  Test Level: NCHRP 350: TL-3 and TL-4

  Post: W6 x 9 or W6 x 8.5 x 6′-9″ Steel Post

  Post Spacing: 6′-3″

  Block-outs: W14x22x17″ long steel block. Steel block-out with a triangular notch cut from its web.

NEW FOR 2014

Florida's Roadside Field Guide

Flexible Systems

Flexible Systems:

- High Tension Cable Barriers (Propriety Systems) are installed with a significantly greater tension in the cables than generic, low-tension, three-cable systems. The deflection of these systems depends on the type of system and the post spacing. The high-tension systems also result in less damage to the barrier and usually the cables remain at the proper height after an impact which damages several posts. Note that the cable heights above ground may vary by manufacturer and by test level.

All of these systems have been tested successfully on slopes as steep as 1V:4H, but lateral placement must follow manufacturer's recommendations. FDOT restricts the use of cable barrier to slopes of 1V:6H or flatter.

NOTE: FDOT limits maximum post spacing to 16 ft.

Brifen Wire Rope Safety Fence (WRSF) by Brifen USA
http://www.brifenusa.com/

Post: Z-shaped post, can be driven or socketed

Cable: 3 or 4 cable combination. Top cable is placed in a center slot at top of the post and cables 2 and 3 are weaved around post. Cables are interwoven around posts.

Typical Post Spacing: 10.5 to 21 ft.

Gibraltar
http://www.gibraltartx.com/

Post: C-channel post, can be driven or socketed

Cable: 3 or 4 cable combination. Cables are attached using a single hair pin and are placed on alternate sides of adjacent posts.

Typical Post Spacing: 10 to 30 ft.

NEW FOR 2014

Florida's Roadside Field Guide

Crash Cushions

Crash Cushions

Crash cushions are generally used to shield hazards in freeway gore areas or the ends of permanent or temporary traffic barriers.

Types of Crash Cushions

Crash cushions are classified based on their expected impact performance. Non-Gating, Redirective Crash Cushions - will contain a vehicle and keep it in the roadway for most impacts.

Many different crash cushions are commonly used throughout the United States. For national crash cushion designs, go to the FHWA website at http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/barriers/index.cfm

Non-Gating, Redirective Crash Cushions

- Used to shield concrete median barrier, double-faced guardrail, and rigid point obstructions.
- Used in narrow or wide roadway medians.
- Redirection begins at approach end.
- Can be used for permanent or temporary applications.

Trinity Attenuating Crash Cushion (TRACC)
Test Level: NCHRP 350 TL-2 and TL-3
How it works: Consists of a series of w-beam fender panels and an impact face which absorbs energy by cutting metal plates on the top sides of the guidance tracks when forced backward in an end on impact.
Requires Paved Pad.
Locations: Median or shoulder protection. Gore two-side protection.

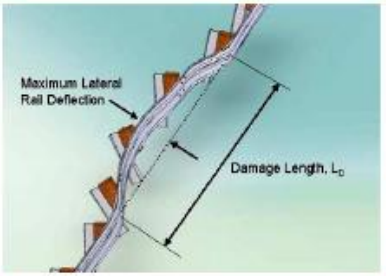
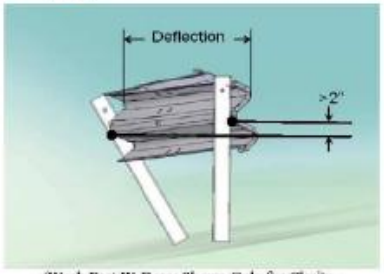
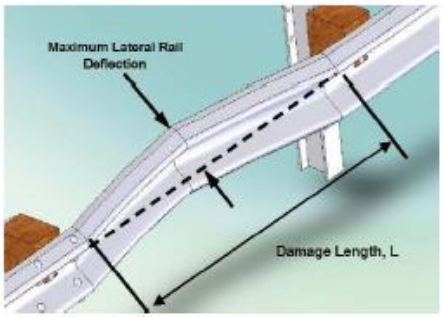
http://www.highwayguardrail.com/products/tracc.html

NEW FOR 2014

Florida's Roadside Field Guide

Maintenance & Repair

Summary of W-beam barrier repair thresholds

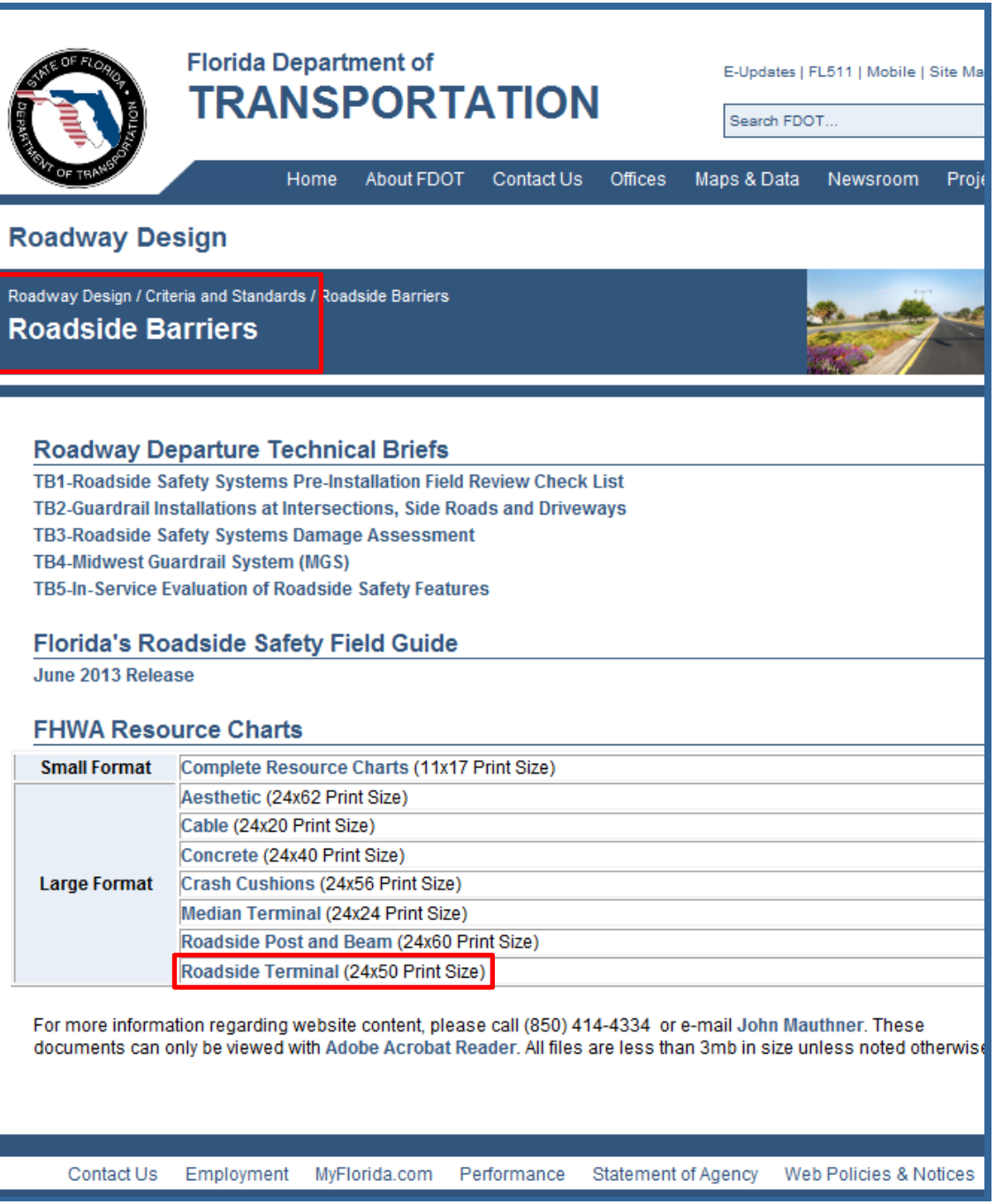
Damage Mode	Repair Threshold	Relative Priority	Measurement
Post and Rail Deflection	One or more of the following thresholds: • More than 9 inches of lateral deflection anywhere over a 25 ft length of rail. • Top of rail height 2 or more inches lower than original top of rail height.	High	  (Weak Post W-Beam Shown Only for Clarity. Each measurement taken at rail middle fold)
	6-9 inches lateral deflection anywhere over a 25 ft length of rail.	Medium	
	Less than 6 inches of lateral deflection over 25 ft length of rail.	Low	
Rail Deflection Only	6-9 inches of lateral deflection between any two adjacent posts. Note: For deflection over 9 inches, use post/rail deflection guidelines.	Medium	
	Less than 6 inches of lateral deflection between any two adjacent posts.	Low	

Design Update Training

NEW FOR 2014

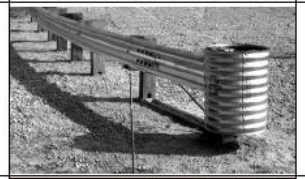
Roadside Barriers

FHWA Resource Charts



Design Update Training

FHWA
Roadside Terminals

NAME	MANUFACTURER		PERFORMANCE CHARACTERISTICS		TEST LEVEL		FLARED	TANGENT	31-inch Height (option)	DISTINGUISHING CHARACTERISTICS	LOCATIONS CAN BE USED
			Energy Absorbing	Non Energy Absorbing	NCHRP 350	MASH					
Vermont G1-d		Generic		X	TL-2		X			No impact head. Shop-bent w-beam 5 ft flare. Concrete anchor block with steel rod connecting at post 3.	Driveway turnouts
Modified Eccentric Loader Terminal (MELT)		Generic		X	TL-2		X			No impact head. Rail installed on parabolic curve. Strut between the steel tube foundation for the two end posts to act together to resist the cable loads. All wood posts.	Should be installed at locations where runout area exists behind and downstream of the terminal. End of W-beam rail with offset of 4'-0".
Buried-in-Backslope Terminal		Generic		X	TL-3		X			No impact head. Height of W-beam rail should be held constant in relation to the roadway shoulder elevation until barrier crosses the ditch bottom. Rubrail should be added below the w-beam.	Cut sections of a roadway When the road transitions from a cut to a fill.
Eccentric Loader Terminal (ELT)		Generic		X	TL-3		X			End consists of a fabricated steel element inside a section of corrugated steel pipe. Rail installed on parabolic curve. Strut between the steel tube foundation for the two end posts to act together to resist the cable loads. All wood posts.	Should be installed at locations where runout area exists behind and downstream of the terminal. End of W-beam rail with offset of 4'-0".
Slotted Rail Terminal (SRT-350) http://www.highwayguardrail.com/products/et-srt350.html		Trinity Highway Products, LLC		X	TL-3		X		X	No impact head. Longitudinal slots on W-beam rail element. Strut and cable anchor bracket between post 1 and 2 act together to resist the cable loads. Slot Guards on downstream end of slots. Steel and wood post options available. Parabolic flare on wood post.	Should be installed at locations where runout area exists behind and downstream of the terminal. End of W-beam rail with offset of 4'-0". Wood post option has 3'-0" to 4'-0" offset.

NEW FOR 2014

Criteria and Standards

Design Standards

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Roadway Design

Roadway Design / Criteria and Standards

Criteria and Standards

Topics

- Bicycle and Pedestrians
- Design Bulletins
- Florida Greenbook
- Florida Intersection Design Guide
- Lighting
- Maintenance of Traffic
- Plans Preparation Manual
- Roadside Barriers
- Signalization and ITS
- Signing and Pavement Marking

Other Links of Interest

- ADA Public Rights of Way
- Construction Office
- Design Standards
- Drainage Section
- Driveway Information Guide - 2008
- Engineering CADD (ECSO)
- MUTCD
- Specifications - Estimates
- Structures Design Office
- Traffic Engineering Office
- Transit Design Handbook
- Traffic Engineering Manual
- Utilities Section

Contact Us

Roadway Design Administrator	Sullivan, Frank	**(850) 414-4324**
Maintenance of Traffic Specialist	Benghuzzi, Ezzeldin	(850) 414-4352
Design Manuals Manager	Gerrell, Benjamin	(850) 414-4318
Traffic Standards Manager	Henson, Chester	(850) 414-4117
Design Manual Engineer	Irizarry, Maria	(850) 414-4317
Special Projects Coordinator	Koos, Mary Anne	(850) 414-4321
Traffic Standards Engineer	Lewis, Christopher	(850) 414-4339
Design Standards Specialist	Martin, Darren	(850) 414-4824
Design Standards Manager	Mauthner, John	(850) 414-4334
Design Standards Engineer	Overton, Patrick	(850) 414-4348
Special Projects Engineer	Prytyka, Gregory	(850) 414-4792

Many links on our site are PDF files and best viewed with Adobe Acrobat Reader

Contact Us | Employment | MyFlorida.com | Performance | Statement of Agency | Web Policies & Notices

Design Update Training

NEW FOR 2014

Design Standards

INDUSTRY REVIEW

Origination Form
Instructions
Example

Current Submittals Under Review

Submittal History

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

ORIGINATION FORM

INSTRUCTIONS

EXAMPLE

DESIGN STANDARDS - ORIGINATION FORM

CONTACT

Date:
Name:
Phone:
Email:

DESIGN STANDARDS

Index No.:
Title:
Sheet No.:

COMMENTARY

BACKGROUND

IMPLEMENTATION

☑ Immediate deployment via a Roadway Design Bulletin (Virtual Implementation), allowing use on projects with lettings beginning in .

OR

☐ Deployment of Index will be accomplished for the Design Standards e-Booklet, allowing use on projects with lettings beginning January 1, .
A Roadway Design Bulletin will be required to release the Design Standards.

Design Update Training

NEW FOR 2014

ORIGINATION FORM

OTHER AFFECTED DOCUMENTS

1. Other Design Standards – N/A
2. Utility Accommodation Manual – N/A
3. Plans Preparation Manual – N/A
4. Basis of Estimates Manual – N/A
5. Standard Specifications – N/A
6. Other – N/A

ORIGINATION PACKAGE

- This origination package includes:
  - ☑ Design Standards - Origination Form,
  - ☐ Proposed Index Drawing(s),
  - ☐ Revised Index Drawing(s),
  - ☐ Proposed IDS,
  - ☐ Revised IDS,
  - ☐ Red-line Mark-ups,
  - ☐ Other Support Documents.

Origination Form Contacts

- Roadway, ITS, Planning, and Landscape:
  - (850) 414-4824 Darren Martin Darren.Martin@dot.state.fl.us
  - (850) 414-4348 Patrick Overton Patrick.Overton@dot.state.fl.us

- Structures:
  - (850) 414-4304 James Frederick James.Frederick@dot.state.fl.us
  - (850) 414-4284 Gevin McDaniel Gevin.McDaniel@dot.state.fl.us

SEND

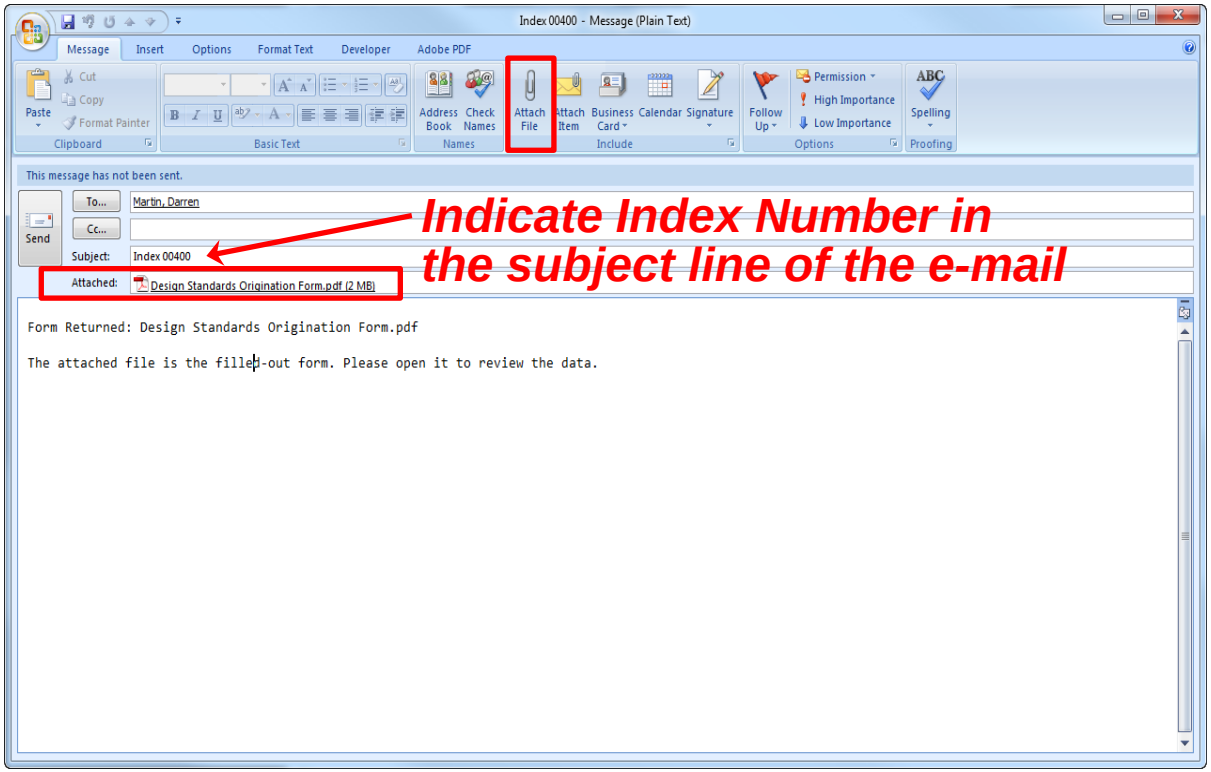
NOTE:
Clicking SEND will create an Origination e-mail.
Please, attach all supporting documents to complete the Origination Package.

NEW FOR 2014

ORIGINATION FORM

e-mail

Attach All Documents to Complete the Origination Package



Design Update Training

NEW FOR 2014

INDUSTRY REVIEW

Origination Form

Instructions

Examples

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

Origination Form

Instructions

INSTRUCTIONS

EXAMPLE

DESIGN STANDARDS - ORIGINATION FORM

CONTACT

Date: Date of Origination (m/d/yyyy) - (This date does not change).

Name: Name of the Person Hosting the Revision or New Index. This Host will be the key contact person for questions, comments and responses related to the index.

Phone: Phone Number of the Host. (10 digits and Enter)

Email: Host email Address.

DESIGN STANDARDS

Index No.: Only one (1) Index Number per Revised Index Drawing(s) Origination Form. When establishing a New Index, list the Proposed Index Number. Coordinate with the Design Standards Manager to Establish the New Index Number.

Title: List the existing Index Title; or the Proposed Index Title of a New Index.

Sheet No.: List the Sheet Number(s) Affected by the Revision or List the Number of Sheets for the New Index.

COMMENTARY

Describe the need for hosting a revision to this design standard. This description should be no more than one or two sentences long. Commentary on new indexes; this section provides the essential technical support behind the new requirement. It includes references to literature (both pro and con), directives, studies, research findings and other information that influences the decision to create a new index.

BACKGROUND

This section discusses the circumstances that prompted the revision or new index. It does not duplicate the commentary section. It should simply facilitate the reader's understanding of the issue or situation that occurred and adequate responses to such issues. The background includes the history of a practice, problem, issue, concern, reference, sources of information, etc.

IMPLEMENTATION

Virtual Implementation revisions will be issued without restriction on an "as needed" basis to effect changes which require immediate implementation (affect safety) or are cost effective to implement immediately (cost savings to Design, Construction, or Maintenance). This section specifies the method of deployment. In any case, an immediate deployment for Virtual Implementation candidates involves issuing a Roadway Design Bulletin with appropriate timeline for implementation.

☑ Immediate deployment via a Roadway Design Bulletin (Virtual Implementation), allowing use on projects with lettings beginning in MONTH, 20XX.

☐ Deployment of Index ##### will be accomplished for the 20XX Design Standards e-Booklet, allowing use on projects with lettings beginning January 1, 20XX.
A Roadway Design Bulletin will be required to release the 20XX Design Standards.
Choose the applicable deployment method (select only one).

NEW FOR 2014

INDUSTRY REVIEW

Origination Form

Instructions

Examples

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

Origination Form

Examples

INSTRUCTIONS

EXAMPLE

DESIGN STANDARDS - ORIGINATION FORM

CONTACT

Date: April 19, 2013
Name: John Mauthner, P.E. – Design Standards Manager
Phone: (850) 414-4334
Email: John.Mauthner@dot.state.fl.us

DESIGN STANDARDS

Index No.: 304
Title: Detectable Warnings and Sidewalk Curb Ramps
Sheet No.: 1-7 (New Sheets)

COMMENTARY

This revision is based on the redevelopment of Index 304.

BACKGROUND

Over the last 30 months calls and comments have been received in the Criteria and Standards Office with the following request: In Index 304 the curb ramp design details are not buildable and lack sufficient detail. The Construction Office received multiple requests from Contractors to generate a "Summary of Detectable Warnings" table which quantify the area of detectable warnings for typical curb ramp applications. In order to provide adequate resolve the Design Standards Office, Central Office ADA Coordinator, and the Construction Office hosted revisions to the redevelopment of Design Standard, Index 304.

IMPLEMENTATION

☐ Immediate deployment via a Roadway Design Bulletin (Virtual Implementation), allowing use on projects with lettings beginning in .

OR

☑ Deployment of Index 304 will be accomplished for the 2014 Design Standards e-Booklet, allowing use on projects with lettings beginning January 1, 2014.
A Roadway Design Bulletin will be required to release the 2014 Design Standards.

NEW FOR 2014

INDUSTRY REVIEW

Current Submittals Under Review

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

Industry Review

Current Submittals Under Review

Florida Department of TRANSPORTATION

E-Updates | FL511 | Site Map
Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Performance | Projects

Web Application

Design Standard Industry Review

he following files are in the developmental process and are posted for Review. If you have comments, please use the comments section below. To track the History of proposed revisions go to: Track the Status of Proposed Revisions
ote:Files on this page are in Adobe Acrobat (PDF) format.
ile Sizes ranges from 23 to 30 kb.

Design Standard	Description	Origination	Review End
-		-	
-		-	

elect the Design Standard you want to comment on.
Select Design Standard
nter your comments in the space provided below:
ote: Time will expire in 20 minutes. If you are unsure of the length of time to enter your comment(s), please type your comment(s) in another application, then copy and paste below.

Tell us how to get in touch with you:(Optional)

Name:
Phone:
E-mail:
Confirm E-Mail:

Please Contact me as soon as possible regarding this matter.

Enter the following characters, then click "Submit" to send your Comments.

Privacy & Terms

Design Update Training

NEW FOR 2014

INDUSTRY REVIEW

Submittal History

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

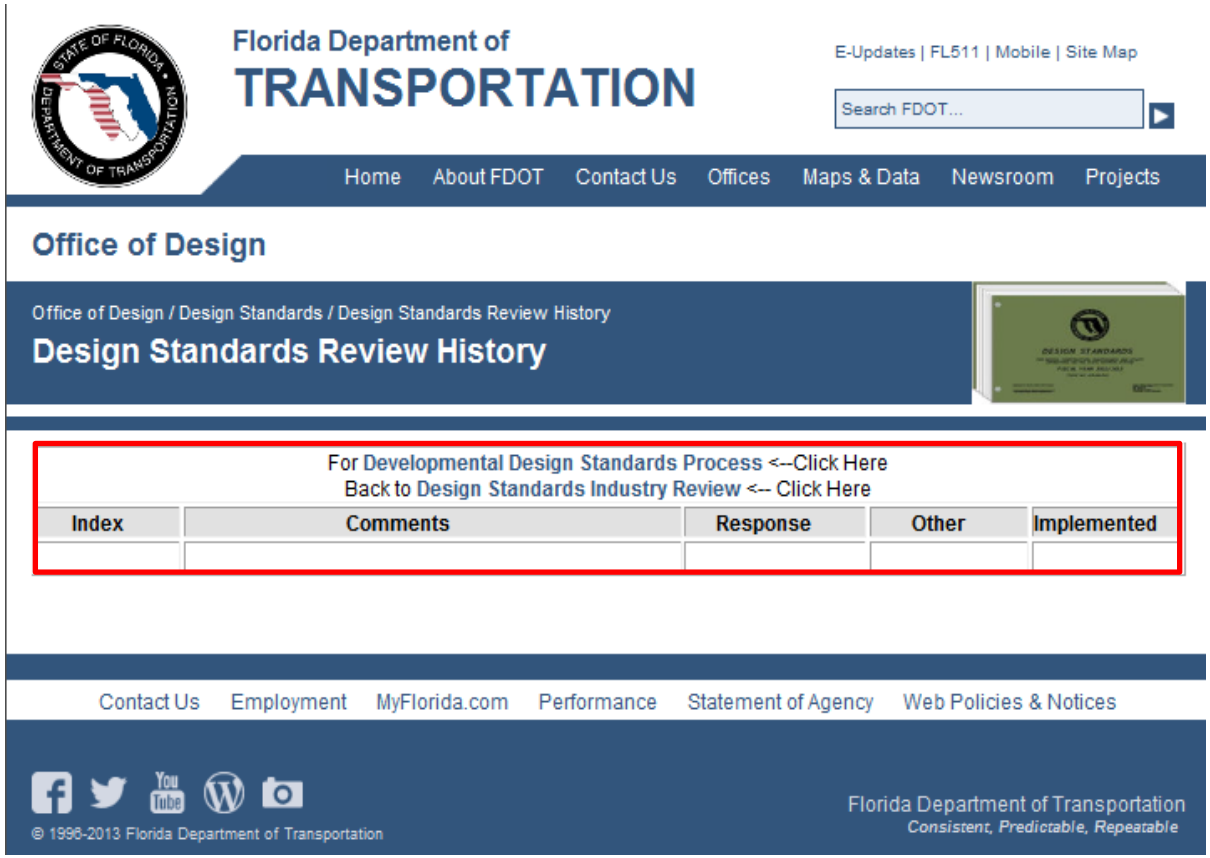
Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

INDUSTRY REVIEW

Submittals History



NEW FOR 2014

Design Standards

CURRENT

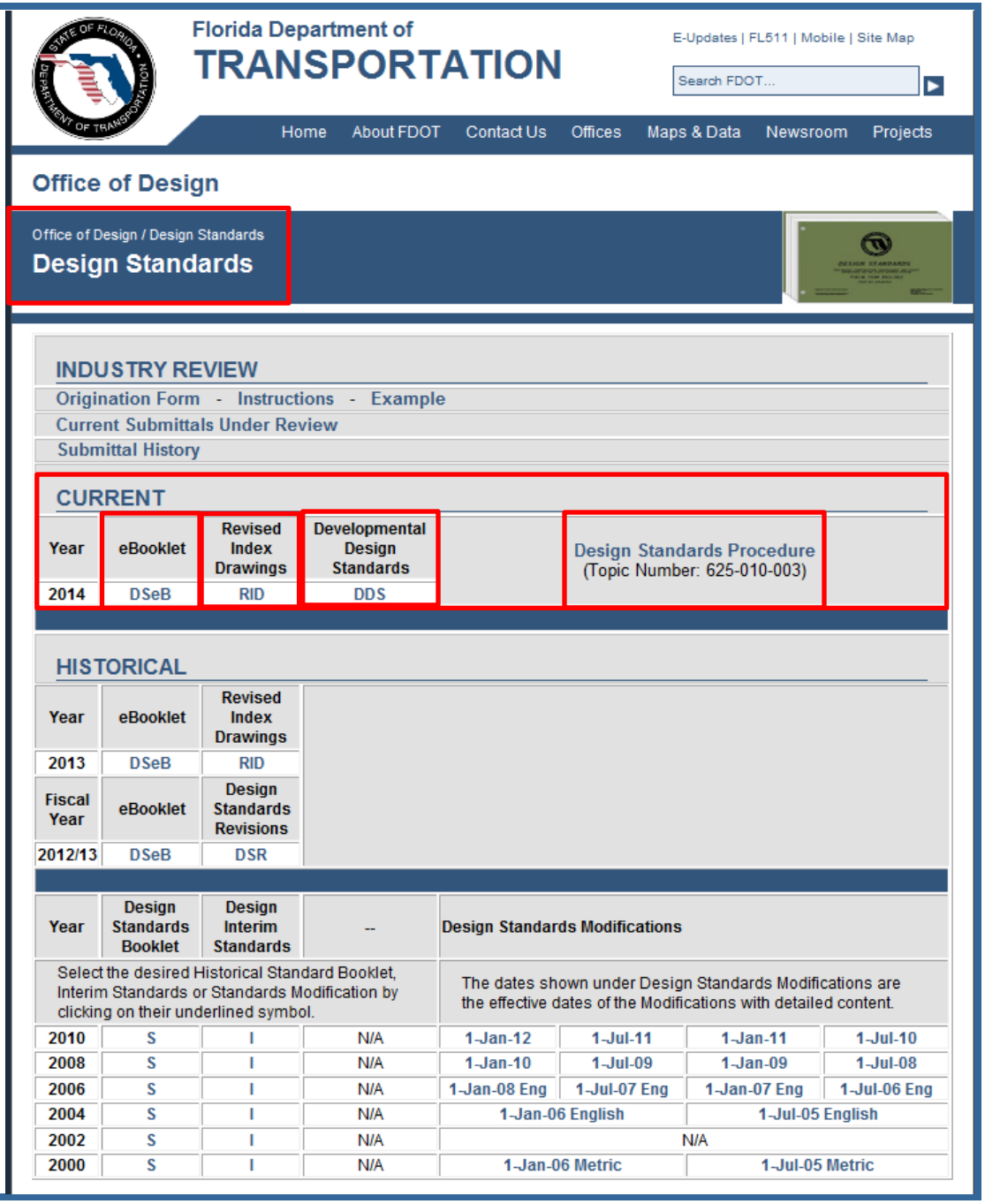
eBooklet 2014

Revised Index Drawings

Developmental Design Standards

Design Standards Procedures

Design Update Training



Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

STANDARD CRITERIA

CLASS	TYPE (1)	APPLICATION DESCRIPTION	INDEX NO.	PERMITTIVITY (sec⁻¹)	AOS SIEVE#	MIN. GRAB TENSILE STRENGTH (lb)	MIN. SEWN STRENGTH (lb/in)	MIN. PUNCTURE (lb)	MIN. TRAPEZOIDAL TEAR (lb)	MIN. WIDE WIDTH TENSILE STRENGTH (lb/in)	UV RESISTANCE (Min. Allowed) %	UV RESISTANCE (Min. Allowed) Time (Hrs.)	COMMENTS
DRAINAGE (D)	D-1	Revetment (Special)		(See D-2)	(See D-2)	315	7.2	113	113		50	500	Woven Monofilament Geotextiles only (Elongation <50%) Provide 12" thick bedding stone layer.
	D-2	Revetment (Standard)		% SOIL PASSING No. 200 SIEVE <15% 0.7; 15% to 50% 0.2; >50% 0.1	% SOIL PASSING No. 200 SIEVE <15% 40; 15% to 50% 60; >50% 70*	Woven Monofilament 248 Other Geotextiles: Elongation <50% 315 ≥50% 203	Woven Monofilament 5.7 Other Geotextiles: Elongation <50% 6.9 ≥50% 4.7	Woven Monofilament 90 Other Geotextiles: Elongation <50% 113 ≥50% 79	Woven Monofilament 57 Other Geotextiles: Elongation <50% 113 ≥50% 79		50	500	Woven Geotextiles only. No Slit Film Geotextiles allowed. Provide 12" thick bedding stone layer for revetment (standard). The bedding layer may be omitted if a D-1 fabric is used with revetment (standard). ****Bedding Stone not required for Articulating Block. *For cohesive soils with a plasticity index >7, maximum average roll value for AOS is number 50 sieve.
		Articulating Block****											
		Gabions	281										
		Rock, Rubble, Broken Concrete											
		Mechanically Stabilized Retaining Wall Supporting Spread Footing Foundations											
	D-3	Underdrain ***	286	% SOIL PASSING No. 200 SIEVE <15% 0.5; 15% to 50% 0.2; >50% 0.1	% SOIL PASSING No. 200 SIEVE <15% 40; 15% to 50% 60; >50% 70*	Elongation <50% 248 ≥50% 158	Elongation <50% 5.7 ≥50% 3.6	Elongation <50% 90 ≥50% 57	Elongation <50% 90** ≥50% 57		50	500	No woven slit film fabrics allowed. *For cohesive soils with a plasticity index >7, maximum average roll value for AOS is number 50 sieve. **Required Trapezoidal tear for woven monofilament is 250. ***See Index No. 286 for the permittivity and AOS values of the internal filter fabric of Type V Underdrain.
		French Drain	285										
		Sheet Piling Filter											
		Filter Fabric Jacket (Culvert)	280										
		Concrete Pavement Subdrainage	287										
	D-4	Slope Pavement (Sand-Cement)		0.5	40	180	4.2	50	35		50	500	Non-woven, needle-punch only. Elongation ≥50%
		Ditch Pavement (Sand-Cement)	281										
	D-5	Mechanically Stabilized Retaining Wall		0.5	40	180	4.2	50	40		50	500	
		Cast-In-Place Retaining Wall											
	D-6	Slope Pavement (Concrete)		0.5	40	180	4.2	50	35		50	500	Non-woven, needle-punch only. Elongation ≥50%
		Ditch Pavement (Concrete)	281										
EROSION (E)	E-1	Staked Silt Fence		0.05	NA	90	2.1	NA	35		80	500	Min. Filtration Efficiency of 75% & min. flow rate of 0.3 gal.
	E-2	Wind Screen		0.05	NA	90	2.1	NA	NA		80	150	
	E-3	Plastic Erosion Mat (Turf Reinforcement Mat) (Type 1)		NA	NA	NA	NA	NA	NA	12 x 6	80	500	Use where design shear stress is ≤2.1 psf
	E-4	Plastic Erosion Mat (Turf Reinforcement Mat) (Type 2)		NA	NA	NA	NA	NA	NA	23 x 12	80	500	Use where design shear stress is ≤3.6 psf
	E-5	Plastic Erosion Mat (Turf Reinforcement Mat) (Type 3)		NA	NA	NA	NA	NA	NA	46 x 23	80	500	Use where design shear stress is ≤5.0 psf

(1) Type refers to FDOT class and application.

TABLE I

Test	Unit	Test Method
Permittivity	sec^{-1}	ASTM-D-4491
AOS	US Sieve No.	ASTM-D-4751
Elongation	%	ASTM-D-4632
Grab Tensile Strength	lb	ASTM-D-4632
Wide Width Tensile Strength	lb/in	ASTM-D-4595
Maximum Design Velocity	fps	See Note 8
Sewn Strength	lb/in	ASTM-D-4884
Puncture	lb	ASTM-D-4833
Trapezoidal Tear	lb	ASTM-D-4533
Ultraviolet Resistance	% Retained In Strength	See Note 7
Filtration Efficiency	%	ASTM-D-5141
Flow Rate	gal^3/min	ASTM-D-5141

GENERAL NOTES

1. Specifications for geotextiles are in Section 985. Physical criteria for each application is provided by this standard, in conjunction with those sections.
2. All values except AOS are MINIMUM AVERAGE ROLL values in the weakest principal direction. Values for AOS are MAXIMUM AVERAGE ROLL values.
3. Test soil or fill material adjacent to the geotextile for gradation to select values for permittivity and AOS.
4. Unless specifically restricted in COMMENTS column, any type of material meeting specification 985 may be used.
5. Wide width tensile strength is expressed in units of measure of lb./in., in machine direction and cross direction, as MD x CD.
6. The Manufacturer shall provide results in English Units.
7. UV Resistance: The value represents the percent minimum textile strength retained (ASTM-D-4632) after weathering per ASTM-D-4355 for the test period (hours).
8. Shear stress limits for plastic erosion mats determined by 30 minutes sustained flow in unvegetated state as determined by tests performed by Utah State University, Texas Transportation Institue or an independant testing laboratory approved by the State Drainage Engineer.

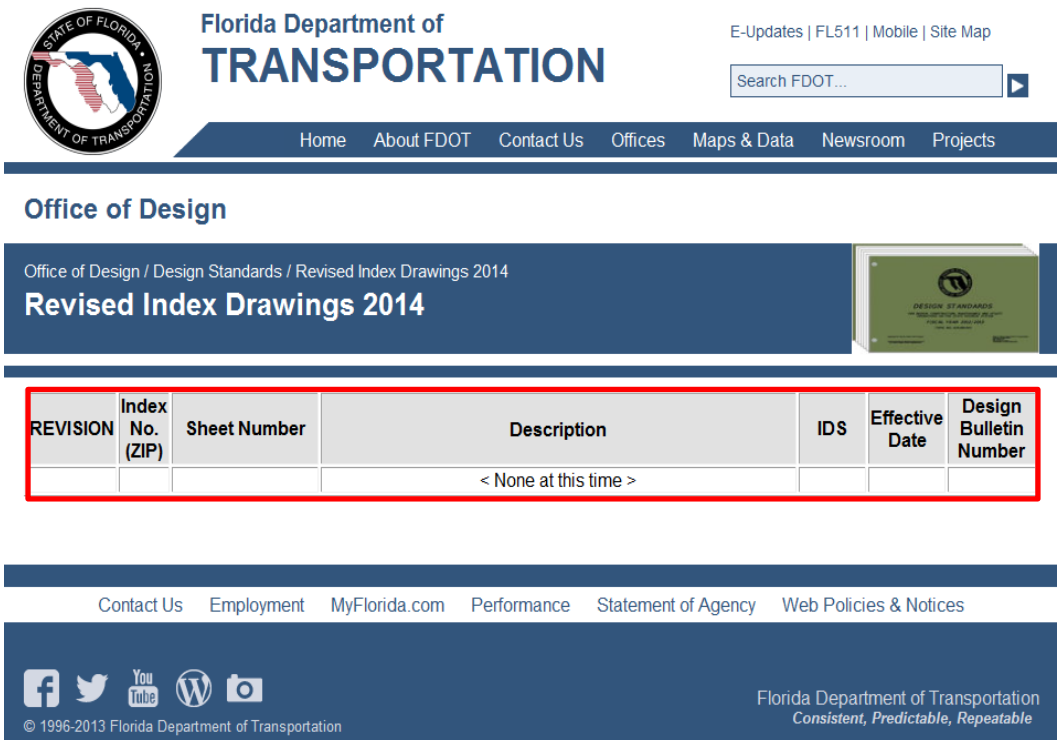
LAST REVISION 07/01/13	REVISION DESCRIPTION:	FDOT 2014 DESIGN STANDARDS	GEOTEXTILE CRITERIA	INDEX NO. 199	SHEET NO. 1 of 1

199	1	Geotextile Criteria		IDS-199		
200	5	Structure Bottoms - Type J & P				
201	5	Supplementary Details for Manholes & Inlets				

NEW FOR 2014

Design Standards

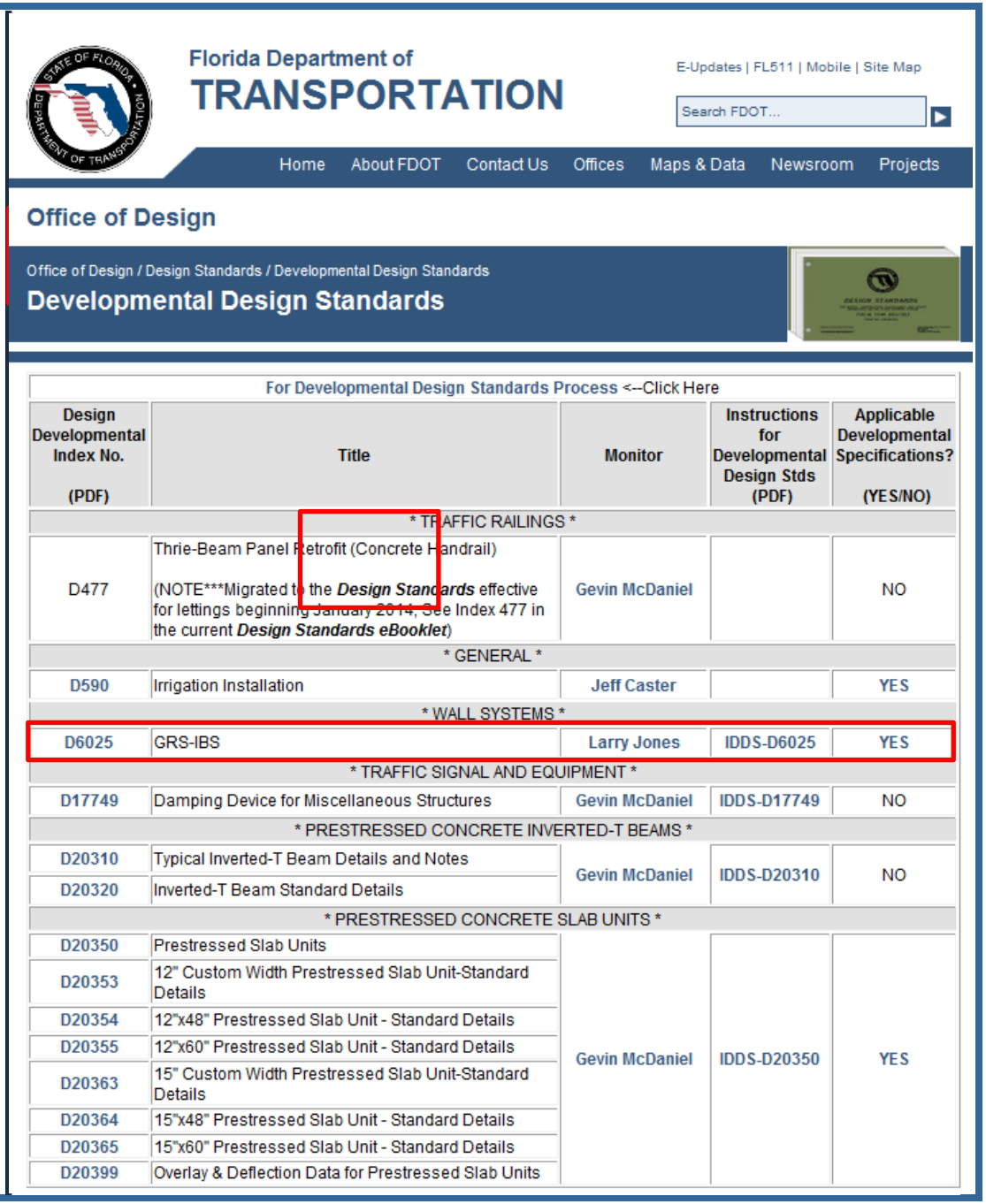
Revised Index Drawings



NEW FOR 2014

Design Standards

Developmental Design Standards



Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards / Developmental Design Standards

Developmental Design Standards

For Developmental Design Standards Process <--Click Here

Design Developmental Index No. (PDF)	Title	Monitor	Instructions for Developmental Design Stds (PDF)	Applicable Developmental Specifications? (YES/NO)
	* TRAFFIC RAILINGS *			
D477	Thrie-Beam Panel Retrofit (Concrete Handrail) (NOTE***Migrated to the ***Design Standards*** effective for lettings beginning January 2014, See Index 477 in the current ***Design Standards eBooklet***)	Gevin McDaniel		NO
	* GENERAL *			
D590	Irrigation Installation	Jeff Caster		YES
	* WALL SYSTEMS *			
D6025	GRS-IBS	Larry Jones	IDDS-D6025	YES
	* TRAFFIC SIGNAL AND EQUIPMENT *			
D17749	Damping Device for Miscellaneous Structures	Gevin McDaniel	IDDS-D17749	NO
	* PRESTRESSED CONCRETE INVERTED-T BEAMS *			
D20310	Typical Inverted-T Beam Details and Notes	Gevin McDaniel	IDDS-D20310	NO
D20320	Inverted-T Beam Standard Details			
	* PRESTRESSED CONCRETE SLAB UNITS *			
D20350	Prestressed Slab Units	Gevin McDaniel	IDDS-D20350	YES
D20353	12" Custom Width Prestressed Slab Unit-Standard Details			
D20354	12"x48" Prestressed Slab Unit - Standard Details			
D20355	12"x60" Prestressed Slab Unit - Standard Details			
D20363	15" Custom Width Prestressed Slab Unit-Standard Details			
D20364	15"x48" Prestressed Slab Unit - Standard Details			
D20365	15"x60" Prestressed Slab Unit - Standard Details			
D20399	Overlay & Deflection Data for Prestressed Slab Units			

Design Update Training

NEW FOR 2014

Design Standards

Design Standards Procedure

Approved:

Department of Transportation

Effective: May 31, 2012
Office: Roadway Design
Topic No.: 625-010-003-j

DESIGN STANDARDS

PURPOSE:

The ***Design Standards (Standard Indexes)*** are a dated set of pre-approved standard drawings, compiled into electronic booklet (***e-Booklet***) format. These standard drawings, known as standard indexes, illustrate accepted practices based on policy and design criteria of the Department. Assembly of the ***Design Standards e-Booklet*** is coordinated and maintained, by the State Roadway Design Office. The ***Design Standards*** are intended to support the various engineering processes for design, construction, maintenance and utility operations on the State Highway System. They are established to ensure uniform application of acceptable engineering standards, designs and details in the preparation of contract plans for roadways and structures.

AUTHORITY:

Sections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S.)

SCOPE:

This procedure impacts those preparing roadway or structures construction plans for the Department or constructing or maintaining Department facilities.

1. APPROVAL

Individual ***Design Standards*** drawings are prepared by various functional areas within the Department. Record copies are filed and maintained by the State Roadway Design Office. Incorporation of new ***Design Standards*** drawings into the ***Design Standards e-Booklet*** requires submission to and certification by the discipline specific responsible professional, followed by final approval of the Federal Highway Administration.

The ***Design Standards*** will include a *CERTIFICATION STATEMENT* sheet signed, dated and sealed by the discipline specific responsible professional. This sheet will identify the individual ***Design Standards*** number(s) certified by each responsible professional. The official certified and approved ***Design Standards e-Booklet*** is posted online at:

http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

NEW FOR 2014

Design Standards

HISTORICAL

eBooklet 2013

eBooklet Fiscal Year 2012/2013

eBooklet 2010 through 2000

Florida Department of TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Office of Design

Office of Design / Design Standards

Design Standards

INDUSTRY REVIEW

Origination Form - Instructions - Example

Current Submittals Under Review

Submittal History

CURRENT

Year	eBooklet	Revised Index Drawings	Developmental Design Standards	Design Standards Procedure (Topic Number: 625-010-003)
2014	DSeB	RID	DDS	

HISTORICAL

Year	eBooklet	Revised Index Drawings
2013	DSeB	RID

Fiscal Year	eBooklet	Design Standards Revisions
2012/13	DSeB	DSR

Year	Design Standards Booklet	Design Interim Standards	--	Design Standards Modifications			
Select the desired Historical Standard Booklet, Interim Standards or Standards Modification by clicking on their underlined symbol.				The dates shown under Design Standards Modifications are the effective dates of the Modifications with detailed content.			
2010	S	I	N/A	1-Jan-12	1-Jul-11	1-Jan-11	1-Jul-10
2008	S	I	N/A	1-Jan-10	1-Jul-09	1-Jan-09	1-Jul-08
2006	S	I	N/A	1-Jan-08 Eng	1-Jul-07 Eng	1-Jan-07 Eng	1-Jul-06 Eng
2004	S	I	N/A	1-Jan-06 English		1-Jul-05 English	
2002	S	I	N/A	N/A			
2000	S	I	N/A	1-Jan-06 Metric		1-Jul-05 Metric	

Design Update Training

NEW FOR 2014

Florida Department of
TRANSPORTATION

E-Updates | FL511 | Mobile | Site Map

Search FDOT...

Home | About FDOT | Contact Us | Offices | Maps & Data | Newsroom | Projects

Roadway Design http://www.dot.state.fl.us/rddesign/cs/cs.shtm

Roadway Design / Criteria and Standards

Criteria and Standards

Topics

- Bicycle and Pedestrians
- Design Bulletins
- Florida Greenbook
- Florida Intersection Design Guide
- Lighting
- Maintenance of Traffic
- Plans Preparation Manual
- Roadside Barriers
- Signalization and ITS
- Signing and Pavement Marking

Other Links of Interest

- ADA Public Rights of Way
- Construction Office
- Design Standards
- Drainage Section
- Driveway Information Guide - 2008
- Engineering CADD (ECSO)
- MUTCD
- Specifications - Estimates
- Structures Design Office
- Traffic Engineering Office
- Transit Design Handbook
- Traffic Engineering Manual
- Utilities Section

Contact Us

Roadway Design Administrator	**Sullivan, Frank**	**(850) 414-4324**
Maintenance of Traffic Specialist	Benghuzzi, Ezzeldin	(850) 414-4352
Design Manuals Manager	Gerrell, Benjamin	(850) 414-4318
Traffic Standards Manager	Henson, Chester	(850) 414-4117
Design Manual Engineer	Irizarry, Maria	(850) 414-4317
Special Projects Coordinator	Koos, Mary Anne	(850) 414-4321
Traffic Standards Engineer	Lewis, Christopher	(850) 414-4339
Design Standards Specialist	Martin, Darren	(850) 414-4824
Design Standards Manager	Mauthner, John	(850) 414-4334
Design Standards Engineer	Overton, Patrick	(850) 414-4348
Special Projects Engineer	Prytyka, Gregory	(850) 414-4792

Many links on our site are PDF files and best viewed with Adobe Acrobat Reader

Contact Us | Employment | MyFlorida.com | Performance | Statement of Agency | Web Policies & Notices

Design Standards Update 2014 eBooklet

The End

Please visit us at:

http://www.dot.state.fl.us/rddesign/cs/cs.shtm

or

contact me

Darren Martin

Design Standards Specialist

(850) 414 - 4824

Darren.Martin@dot.state.fl.us

Design Update Training