

Origination Form

Specifications

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Date:	2026-05-06T17:21:27Z	Associated Specs:	N/A

Summary:

Added the APL request for the bearing pad and editorial changes to the table.

Justification:

Add bearing pad on APL program to meet BABA policy.

Do the changes affect other types of specifications?

Neither

List Specifications Affected:

Other Affected Documents/Offices	Contacted	Yes/No
Other Standard Plans		No
Florida Design Manual		No
Structures Manual		No
Basis of Estimates Manual		No
Approved Product List	Karen Byram	Yes
Construction Office		No
Maintenance Office		No
Materials Manual		No
Traffic Engineering Manual		No

Are changes in line with promoting and making progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?

N/A; this helps the department comply with the Federal BABA policy.

What financial impact does the change have; project costs, pay item structure, or consultant fees?

N/A

What impact does the change have on production or construction schedules?

N/A

How does this change improve efficiency or quality?

Improve the quality by requiring bearing pad on APL.

Which FDOT offices does the change impact?

State Materials Office

What is the impact to districts with this change?

N/A

Does the change shift risk and to who?

N/A

Provide summary and resolution of any outstanding comments from the districts or industry.

Comments and Responses are available on the Track the Status of Revisions hyperlink located on the Specifications landing page: <https://www.fdot.gov/specifications/default.shtm>

What is the communication plan?

Through the established specification revision process (e.g., Internal and Industry Review)

What is the schedule for implementation?

The Standard Specifications eBook and Workbook are effective July 1st every year.

CONCRETE STRUCTURES

(REV 5-6-26)

ARTICLE 400-2 is deleted and the following substituted:

400-2 Materials.

Meet the following requirements:

Concrete	Sections 346 and 347
Penetrant Sealer	Section 413
High Molecular Weight Methacrylate (HMWM)**	
.....	Section 413
Reinforcing for Concrete	Section 415
Water	Section 923
Curing Materials*,**	Section 925
Epoxy Bonding Compounds**	Section 926
Post Installed Anchor Systems**	Section 937
Joint Materials**	Section 932
Bearing Pads**	Section 932
Non-Shrink Grout**	Section 934
Class 5 Applied Finish Coatings**	Section 975
Galvanizing Compound**	Section 562
Dowel Bar Assembly**	Section 931
Geosynthetic Material**	Section 985

*The Engineer will allow clean sand and sawdust for certain curing, when and as specified.

**Use products listed on the Department's Approved Product List (APL).

SUBARTICLE 400-21.5.2 is deleted and the following substituted:

400-21.5.2 Structural Cracks: Submit an Engineering Analysis Scope in accordance with 6-4, signed and sealed by the Contractor's Engineer of Record, to determine the strength and durability of the proposed repair. Upon approval of the EAR and final determination of the Engineer, repair or remove and replace the cracked concrete in accordance with the approved EAR.

Table 400-3 DISPOSITION OF CRACKED CONCRETE OTHER THAN BRIDGE DECKS [see separate Key of Abbreviations and Footnotes for Tables 400-3 and 400-4]													
Elevation - Range	Crack Width Range (inch) ⁽²⁾ x = crack width	Cracking Significance Range per LOT ⁽¹⁾											
		Isolated			Occasional			Moderate			Severe		
		Less than 0.005%			$\geq 0.005\%$ to $< 0.017\%$			$\geq 0.017\%$ < to $< 0.029\%$			$\geq 0.029\%$ or gtr.		
		Environment Category											
		SA	MA	EA	SA	MA	EA	SA	MA	EA	SA	MA	EA

Elevation: ≤ 0 to 6 ft AMHW	$x \leq 0.004$	NT	NT	PS ^(6,8)	NT	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)				
	$0.004 < x \leq 0.008$	NT	PS ^(6,8)	EI ⁽³⁾	PS ⁽⁶⁾	EI ⁽³⁾	EI ⁽³⁾	PS ⁽⁶⁶⁾					
	$0.008 < x \leq 0.012$	NT	PS ⁽⁶⁾	EI									
	$0.012 < x \leq 0.016$	PS ⁽⁶⁾											
	$0.016 < x \leq 0.020$	Investigate to Determine											
	$0.020 < x \leq 0.024$	Appropriate Repair ^(4,5)											
	$0.024 < x \leq 0.028$	or Rejection							Reject and Replace				
	$x > 0.028$												
> 1 Elev.: More Than 6 ft ≤ 12 to 20 ft AMHW	Crack Width	SA	MA	EA	SA	MA	EA	SA	MA	EA	SA	MA	EA
	$x \leq 0.004$	NT	NT	PS ^(6,8)	NT	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)		
	$0.004 < x \leq 0.008$	NT	PS ⁽⁶⁾	EI ⁽³⁾	PS ⁽⁶⁾	PS ⁽⁶⁾	EI ⁽³⁾	PS ⁽⁶⁾	EI ⁽³⁾				
	$0.008 < x \leq 0.012$	NT	PS ⁽⁶⁾	EI	EI	EI							
	$0.012 < x \leq 0.016$	PS ⁽⁶⁾	EI	EI	EI								
	$0.016 < x \leq 0.020$	EI	Investigate to Determine Appropriate										
	$0.020 < x \leq 0.024$	Repair ^(4,5) or Rejection							Reject and Replace				
	$x > 0.024$												
Elev.: Over Land or More Than 20 ft	Crack Width	SA	MA	EA	SA	MA	EA	SA	MA	EA	SA	MA	EA
	$x \leq 0.004$	NT	NT	NT	NT	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)	PS ^(6,8)		
	$0.004 < x \leq 0.008$	NT	PS ⁽⁶⁾	PS ⁽⁶⁾	PS ⁽⁶⁾	PS ⁽⁶⁾	EI ⁽³⁾	PS ⁽⁶⁾	EI ⁽³⁾	EI ⁽³⁾	PS ⁽⁶⁾		
	$0.008 < x \leq 0.012$	NT	PS ⁽⁶⁾	EI	EI	EI	EI	EI	EI				
	$0.012 < x \leq 0.016$	PS ⁽⁶⁾	EI	EI	EI	EI	EI						
	$0.016 < x \leq 0.020$	EI	EI	EI	EI	Investigate to Determine							
	$0.020 < x \leq 0.024$	EI	Appropriate Repair ^(4,5) or							Reject and Replace			
	$x > 0.024$	Rejection											

Table 400-4 DISPOSITION OF CRACKED CONCRETE BRIDGE DECKS [see separate Key of Abbreviations and Footnotes for Tables 400-3 and 400-4]													
Elevation Range	Crack Width Range (inch) ⁽²⁾ x = crack width	Cracking Significance Range per LOT ⁽¹⁾											
		Isolated			Occasional			Moderate			Severe		
		less than $\leq 0.005\%$			$\geq 0.005\%$ to $< 0.017\%$			$\geq 0.017\%$ to $< 0.029\%$			$\geq 0.029\%$ or gr.		
		Environment Category											
		SA	MA	EA	SA	MA	EA	SA	MA	EA	SA	MA	EA
Elevation: 12-20 feet or Less AMHW	$x \leq 0.004$	NT	NT	NT	NT	NT	NT	NT	NT	NT			
	$0.004 < x \leq 0.008$	NT	NT	EI/M	NT	NT	EI/M	EI/M	EI/M	EI/M			
	$0.008 < x \leq 0.012$	NT	NT	EI/M	NT	EI/M	EI/M	EI/M	EI/M				
	$0.012 < x \leq 0.016$	NT	NT	EI/M	NT	EI/M							
	$0.016 < x \leq 0.020$	EI/M	EI/M	EI	EI								
	$0.020 < x \leq 0.024$	EI/M	EI	EI	Investigate to Determine Appropriate Repair ^(4, 5) or Rejection						Reject and Replace		
	$0.024 < x \leq 0.028$	EI/M	EI										
	$x > 0.028$												
Elevation: Over Land or More Than 12-20 feet AMHW	Crack Width	SA	MA	EA	SA	MA	EA	SA	MA	EA	SA	MA	EA
	$x \leq 0.004$	NT	NT	NT	NT	NT	NT	NT	NT	NT			
	$0.004 < x \leq 0.008$	NT	NT	NT	NT	NT	EI/M	NT	EI/M	EI/M			
	$0.008 < x \leq 0.012$	NT	NT	EI/M	NT	NT	EI/M	EI/M	EI/M				
	$0.012 < x \leq 0.016$	NT	NT	EI/M	NT	EI/M							
	$0.016 < x \leq 0.020$	NT	EI/M	EI	EI/M								
	$0.020 < x \leq 0.024$	NT	EI/M	EI	Investigate to Determine Appropriate Repair ^(4, 5) or Rejection						Reject and Replace		
	$0.024 < x \leq 0.028$	NT	EI/M										
	$x > 0.028$												

Key of Abbreviations and Footnotes for Tables 400-3 and 400-4		
Type Abbreviation	Abbreviation	Definition
Repair Method	EI	Epoxy Injection
	M	Methacrylate
	NT	No Treatment Required
	PS	Penetrant Sealer
Environment Category	EA	Extremely Aggressive
	MA	Moderately Aggressive
	SA	Slightly Aggressive
Reference Elevation	AMHW	Above Mean High Water
<u>Footnotes</u> (1) Cracking Significance Range is determined by computing the ratio of Total Cracked Surface Area (TCSA) to Total Surface Area (TSA) per LOT in percent $[(TCSA/TSA) \times 100]$ then by identifying the Cracking Significance Range in which that value falls. TCSA is the sum of the surface areas of the individual cracks in the LOT. The surface area of an individual crack is determined by taking width measurements of the crack at 3 representative locations and then computing their average which is then multiplied by the crack length. (2) Crack Width Range is determined by computing the width of an individual crack as computed in (1) above and then identifying the range in which that individual crack width falls. (3) When the Engineer determines that a crack in the 0.004 inch to 0.008-inch width range cannot be injected then for Table 400-3 use penetrant sealer unless the surface is horizontal, in which case, use methacrylate if the manufacturer's recommendations allow it to be used and if it can be applied effectively as determined by the Engineer. (4) (a) Perform epoxy injection of cracks in accordance with Section 411. Seal cracks with penetrant sealer or methacrylate as per Section 413. (b) Use only methacrylate or penetrant sealer that is compatible, according to manufacturer's recommendations, with previously applied materials such as curing compound or paint or remove such materials prior to application. (5) When possible, prior to final acceptance of the project, seal cracks only after it has been determined that no additional growth will occur. (6) Methacrylate shall be used on horizontal surfaces in lieu of penetrant sealer if the manufacturer's recommendations allow it to be used and if it can be applied effectively as determined by the Engineer. (7) Unless directed otherwise by the Engineer, repair cracks in bridge decks only after the grinding and grooving required by 400-15.2.5 is fully complete.		