

Origination Form

Specifications

Submittal Information			
Name:	Richard Stepp	Standard Specification Section:	962
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Date:	2026-06-30T15:34:16Z	Associated Specs:	550

Summary:

This revision adds a proprietary option for anti-climbing, anti-cutting fencing to support what is already being used by some Districts. In Sections 550 & 962, track-change revisions are proposed for Specs 550-2, 550-3.1, 550-3.4 thru 3.6, and 550-4.1, 550-4.5, 962-13.1 thru 962-13.2. Additionally, 550-4.5 is being updated to accommodate last year's Standard Plans Index 550 Series redevelopment. The Specification 105 QC Plans has been removed and substituted with the Approved Product list.

Justification:

This proprietary fencing type will receive Specifications and APL requirements in order to expedite District design processes, including pre-approved BABA options on the APL. This fence may be used as a substitute for Standard Plans Type R fence on top of bridge railings (as currently supported by the Index 550 SPIs), and it may also be used underneath bridges for "security and anti-loitering" purposes. This supporting criteria with usage guidance and restrictions is currently being developed for FDM 260 (published 2027). Material requirement changes have been made to align with Materials Bulletin No. 24-02 Revised Procurement And Contractor's Quality Control Plan Requirements Of Specific Structural Materials For Projects Let After July 1, 2024.

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	Me and Ben Gerrell	Yes
Structures Manual		No
Basis of Estimates Manual	C-Team Josh Toole	Yes

Approved Product List	Karen and Missy	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?

This will reduce design time because guidance will be provided and fence options will be available on the APL. Costs may be increased in order to provide added benefits of improved aesthetics, anti-climbing, and anti-loitering at the discretion of the District offices.

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

Costs may be increased in order to provide added benefits of improved aesthetics, anti-climbing, and anti-loitering at the discretion of the District offices.

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

This will reduce design time because guidance will be provided and fence options will be available on the APL.

How does this change improve efficiency or quality?

These proprietary fences will provide added benefits of improved aesthetics, anti-climbing, and anti-loitering at the discretion of the District offices. Material requirement changes have been made to align with Materials Bulletin No. 24-02 Revised Procurement And Contractor's Quality Control Plan Requirements Of Specific Structural Materials For Projects Let After July 1, 2024.

Which FDOT offices does the change impact?

Design, Materials, Construction

What is the impact to districts with this change?

This will reduce design time because guidance will be provided and fence options will be available on the APL.

Does the change shift risk and to who?

No

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.

STRUCTURAL STEEL AND MISCELLANEOUS METAL ITEMS (OTHER THAN ALUMINUM)
(REV 6-30-26)

SUBARTICLE 962-10.3 is expanded by the following:

962-10.3 Steel Grates: Provide steel grating in accordance with this section and Table 962-13. When vanned gratings are specified, AASHTO HL-93 load testing may be substituted for tensile testing when specified in the contract documents. When Alternate G is specified, provide galvanizing in accordance with 962-11.1.

Table 962-13 Requirements for Steel Grating				
Product	Standard	Grade	Type/ Style	Reportable Properties
Steel Grating	A242	50	1	Composition, Tensile*, Killed
	A572		1, 2, 3, 5	Composition, Tensile*, Size, Killed
	A588		A, B, K	Composition, Tensile*, Fine Grain
	A1011	Any	SS, HSLAS, HSLAS-F	Designation, Style
* AASHTO HL-93 may be substituted for tensile testing for vanned gratings when specified.				

962-10.3.1 Approved Product List (APL): The steel grates used shall be one of the products listed on the Department's APL. Manufacturers seeking evaluation of their products shall submit an APL application in accordance with Section 6 and include product photo, product label, and performance test reports from an independent laboratory showing the product meets the requirements of this section.

ARTICLE 962-13 is deleted and the following substituted:

962-13 Fence Materials.

962-13.1 ~~General~~ Standard Fencing:

~~The types of fence are designated as follows~~ The following fence types are detailed per the Standard Plans:

Type A (Farm Fence).

Type A (Wildlife Fence).

Type B (Chain-Link Fence).

Type R (Chain-Link Fence for Pedestrian Overpass).

All materials shall be one of the products listed on the Department's Approved Product List (APL). Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6 and include the documentation identified in Table 962-16.

Table 962-16 APL Requirements for Fence Materials	
Documentation	Requirements (edit as needed for specific products)
Product Photo	Provide product photos that display the significant features of the product.
Product Label and Packaging	Provide label and packaging photos for all manufacturer supplied installation materials.
Technical Data Sheet	Provide product literature that uniquely identifies the product, storage instructions.
Manufacturer's Certification	Provide Manufacturer's Certification showing compliance with the material requirements of this Section.
Product Sample (for APL listing)	A sample may be requested to verify the product, in accordance with the specifications.

962-13.21.1 Fence Fabric Material Requirements: Provide fencing materials in accordance with this Section and Table 962-17. When galvanizing is specified, provide galvanizing in accordance with the contract documents.

Table 962-17 Material Requirements for Fencing Fabric				
Fence Type	Standard	Grade / Type	Style	Other requirements, including Coating
Fabric Type A (Farm)	A116	60	No. 9	Galvanized, Design No. 1047-6-9, Class 3 zinc coating
Type A (Farm)		175	No. 12-1/2	Galvanized, Design No. 1047-6-12 1/2 , Class 3 zinc coating, with a 10 1/2 gage top and bottom wire
Type A (Wildlife)		175	No. 12-1/2	Galvanized, Design No. 2096-6-12 1/2, Class 3 zinc coating
Type A (Farm)	A584	175	No. 9	Aluminum Coated, Design Number 1047-6-9, with a minimum coating weight of 0.40 oz/ft ²
Type A (Wildlife)			No. 12-1/2	Aluminum Coated, Design Number 2096-6-12.5, with minimum coating weight of 0.40 oz/ft ²
Type B (Chain link)	M181	I	No. 9	Zinc Coated Steel, rate of 1.8 oz/ft ² *
		II		Aluminum Coated Steel, rate of 0.40 oz/ft ²
		IV		Polyvinyl Chloride (PVC) coated steel, core wire Zinc Coated Steel, PVC Coating: M181 Class A (either extruded or extruded and bonded) or Class B (bonded) **
Type R	A392	All	No. 9	See Index 550-010, 550-011, 550-012, or 550-013

Table 962-17 Material Requirements for Fencing Fabric				
Fence Type	Standard	Grade / Type	Style	Other requirements, including Coating
Type R	A491	All	No. 9	See Index 550-010, 550-011, 550-012, or 550-013
Type R	F668	All	No. 9	See Index 550-010, 550-011, 550-012, or 550-013
* M181 Class D 2.0 oz./ft ² modified to 1.8 oz./ft ² ** Unless the Plans call for M181 standard colors medium green or black, the coating color shall be soft gray matching that of No. 36622 of Federal Standard 595a				

962-13.31.2 Steel Posts for Fence: Meet the requirements of Table 962-18.

Table 962-18 Steel Posts, Beams, and Pipe Tube for Fence				
Product	Fence Type	Standard	Dimensions, Minimum	Requirements
Line Posts	Type A (Farm)	A702(18 in ²)	8' long	1.33 lb/ft, hot rolled studded; anchor plate attached. Galvanized at the rate of 2 oz/ft ²
	Type B	ASTM A53 Table 2 (Grade A or B); ASTM F1083, and AASHTO M111	Schedule 40: 1-1/2" nominal dia.	Zinc galvanized at the rate of 1.8 oz/ft ²
		ASTM A53 Table 2 (Grade A or B); ASTM F1083, and AASHTO M111	Schedule 40: 1-1/2" nominal dia., 1.90" OD	Aluminum Coated, Coated at the rate of 0.40 oz/ft ²
		AASHTO M111	1-7/8" x 1-5/8"	Steel H-Beam; Zinc Galvanized at the rate of 1.8 oz/ft ²
		ASTM F1043, and AASHTO M111	Steel C, 1-7/8" x 1-5/8"	AASHTO M111, OR 0.9 oz./ft ² . zinc-5% aluminum- mischmetal; ASTM F1043 and Standard Index 550-002

Table 962-18
Steel Posts, Beams, and Pipe Tube for Fence

Product	Fence Type	Standard	Dimensions, Minimum	Requirements	
		ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design)	Fence Industry 2" OD, 1-1/2" NPS, 1.900" Dec equiv., 0.120" min wall thick. And min wt 2.28 lb/ft;	Resistance welded steel pipe; 50,000 psi min yield strength; ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15 µg/in ² min and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.	
	Type R	A702	50	Carbon, Rail	Tensile or Hardness
Approach Posts	Type A (Farm)	-	2-1/2"x 2-1/2"x1/4" angles, 8' long	Fabricated for attaching brace; with necessary hardware. Galvanized at the rate of 2 oz/ft ²	
	Type R	A702	50	Carbon, Rail	Tensile or Hardness
Pull, End and Corner Posts	Type A (Farm)	-	2-1/2"x 2-1/2"x1/4" angles, 8' long	Fabricated for attaching brace; with necessary hardware. Galvanized at the rate of 2 oz/ft ²	
	Type R	A702	50	Carbon, Rail	Tensile or Hardness
	Type B	ASTM A53 X2 Tables; ASTM F1083, and AASHTO M111	Schedule 40: 2" nominal dia.	Zinc galvanized at the rate of 1.8 oz/ft ²	
		ASTM A53 X2 Tables; ASTM F1083, and AASHTO M111	Schedule 40: 2" nominal dia., 2.375" O.D.	Coated at the rate of 0.40 oz/ft ²	

Table 962-18
Steel Posts, Beams, and Pipe Tube for Fence

Product	Fence Type	Standard	Dimensions, Minimum	Requirements
		ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design)	Fence Industry 2.5" OD, 2" NPS, 2.375" dec equiv, 0.130" min wall thickness and min wt 3.117 lb/ft	Resistance welded steel pipe: 50,000 psi min yield strength; ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15 µg/in ² min and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
Rail Options	Type B	ASTM A53 X2 Tables, ASTM F1083 and AASHTO M111	Schedule 40- 11 #4" nominal dia.	Zinc galvanized at the rate of 1.8 oz/ft ²
		ASTM A53 AASHTO M111	Schedule 40- 11 #4" nominal dia., 1.660" O.D.	Aluminum Coated, Coated at the rate of 0.40 oz/ft
		ASTM A569/A569M, ASTM A653/A653M, , or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design)	Fence Industry 15 #8" O.D., 11 #4" NPS, 1.660" dec. equiv., 0.111 min. wall thick. And min. wt. 1.836 lb/ft	Resistance welded steel pipe; 50,000 psi min. yield strength; ASTM F1043 metric equivalent internal coating Types A, B, C, or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15 µg/in ² min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

Table 962-18 Steel Posts, Beams, and Pipe Tube for Fence					
Product	Fence Type	Standard	Dimensions, Minimum	Requirements	
		ASTM F1043	-	-	-
Pipe, Tube	Type B	A53	A, B	E, F, S	Grade, Finish
	Type R	F1083	Schedule 40	High Strength	Schedule
	Type B	F1043	1C	All	Group, Coating, Type
			1A	High strength	
Braces	Type A (Farm)	-	2”x 2”x 1/4” angles	With necessary hardware and fabricated for attaching to post. Galvanized at the rate of 2 oz/ft²	
Beam	Type R	A36	36	All Shapes	Grade, Killed
		A572	42		
		A992	50		
Sheets	-	A1011	36, 45, 50	HSLAS, HSLAS- F, SS	Designation, Style D

962-13.41.3 Tie Wire and Barbed Wire for Fence: Meet the requirements of Table 962-19:

Table 962-19 Tie Wire and Barbed Wire Requirements			
Tie Wire Requirements			
Product	Fence Type	Standard	Requirements
Tie Wire	Type A (Farm)	ASTM A641	Steel wire 0.120” diameter with Zinc coating Class 3, soft temper
	Type B	-	Steel wire No. 9 gage, zinc galvanized at rate of 1.2 oz/ft2
		-	Aluminum coated steel wire No. 7 gage, at rate of 0.040 oz/ft2
Hog Ring	Type B	-	Steel wire No. 9 gage, zinc galvanized at rate of 1.2 oz/ft2
			Aluminum coated steel wire No. 7 gage, at rate of 0.040 oz/ft2
Barbed Wire Requirements			
Barbed Wire	Type A (Farm)	ASTM A121	Type I: with two strands of 12-1/2 gage wire; four-point barbs, wire size 14 gage, twisted around both line wires; and Class 3 coating; Design No. 12-4-5-14R

			Type IIA: Same as Type I except the two strand wires are twisted in alternating directions between consecutive barbs
			Type IIB: with two strands of 15-1/2 gage high tensile wire; four-point barbs, wire size 16 ½ gage twisted around both line wires; and Class 3 coating; Design No. 15-4-5-16R
			Type I: with two strands of 15-1/2 gage wire; four point barbs, wire size 14 gage, twisted around both line wires; class 3 coating
			Type II: same as Type I except the two strands are twisted in alternating directions between consecutive barbs
Tension Wire	Type B	AASHTO M181	Steel wire No. 7 gage, zinc galvanized at the rate of 1.2 oz/ft ²
			Aluminum coated steel wire, No. 7 gage, coated at the rate of 0.040 oz/ft ²

962-13.2 Anti-Climbing Fence

The Type M (Anti-Climbing Fence) shall be one of the products listed on the APL. Manufacturers seeking evaluation of their product must submit an application following the requirements of Section 6 along with the following documentation:

1. Product brochure or catalog sheets showing the company information along with the product name, photos, and special features (e.g., anti-climbing, anti-cutting, etc.).

2. Product technical drawings, including dimensions, materials, coatings, and capacities. Provide details for fence height options 6 feet and taller. Include details for gates and locking mechanisms, if available.

3. Manufacturer's warranty for quality of materials covering a term of five years from the date of project acceptance.