

ORINATION FORM
Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date:

Office:

Originator:

Specification Section:

Telephone:

Article/Subarticle:

email:

****Will the proposed revision require changes to:**

Publication	Yes	No	Office Staff Contacted and date contacted
Standard Plans Index			
Traffic Engineering Manual			
FDOT Design Manual			
Construction Project Administration Manual			
Basis of Estimate/Pay Items			
Structures Design Guidelines			
Approved Product List			
Materials Manual			

**This section must be completed prior to processing proposed revisions.

Will this revision necessitate any of the following:

Design Bulletin

Construction Bulletin

Estimates Bulletin

Materials Bulletin

Are all references to external publications current?

Yes

No

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

Summary of the changes:

Are these changes applicable to all Department jobs?

Yes

No

If not, what are the restrictions?



RON DESANTIS
GOVERNOR

KEVIN J. THIBAUT, P.E
SECRETARY

M E M O R A N D U M

DATE: December 17, 2020
TO: Specification Review Distribution List
FROM: Daniel Strickland, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **9550000 Timber Treatment (Including Treating Materials).**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Tim McCullough from the State Materials Office to implement the requirements for treatment of timber, verify certifications when arrived on job-site or in the Department's database.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx> . Comments received after **January 14, 2021**, may not be considered. Your input is encouraged.

DS/rf

Attachment

**TIMBER TREATMENT
(INCLUDING TREATING MATERIALS)
(REV 10-20-20)**

SECTION 955 is deleted and the following substituted:

955-1 General.

The work specified in this Section is the treating of structural timber, timber piling and timber posts, bracing and railing. The method of treatment and determination of assay results for all such timber materials shall be in accordance with AASHTO M 133, or American Wood Protection Association (AWPA) Use Category System (UCS) - U1, with the exceptions and additions as specified herein. Use approved producers listed on the Department's Production Facility Listing for timber components located in https://mac.fdot.gov/smreports. Producers seeking inclusion shall meet the requirements of Section 105.

955-2 Preservative.

~~955-2.1 Salt or Brackish Water Use: The treating of Southern Yellow Pine (SYP) lumber or timber for use in salt or brackish water environments shall be done with Chromated Copper Arsenate (CCA) in accordance with AWPA U1.~~ **Guardrail Post, Fence Post, Bracing and Railing on Pedestrian Bridges, Buildings, and Rest Areas in Above Ground, Ground Contact, Fresh Water Immersion Applications (Pedestrian Use):** Provide guardrail post, fence post, bracing and railing in accordance with Table 955-1. Approved producers should provide a certification showing the treatment and assay results with every shipment.

Table 955-1				
<u>Product</u>	<u>Type / Species</u>	<u>Category</u>	<u>Treatment</u>	<u>Assay Results</u>
<u>Guardrail Posts, Fence Post, Bracing, & Railing</u>	<u>Southern Yellow Pine</u>	<u>UC4A</u>	<u>Micronized Copper Azole (MCA)</u>	<u>≥ 2.4 kg/m³ or ≥ 0.15 pcf</u>
			<u>Copper Azole Type C (CA-C)</u>	
			<u>Copper Azole Type B (CA-B)</u>	<u>≥ 3.3 kg/m³ or ≥ 0.21 pcf</u>
			<u>Alkaline Copper Quat Type A, (ACQ-A)</u>	<u>≥ 6.4 kg/m³ or ≥ 0.40 pcf</u>
<u>Alkaline Copper Quat Type B, (ACQ-B)</u>				

			<u>Alkaline Copper Quat Type C, (ACQ-C)</u>	
			<u>Alkaline Copper Quat Type D, (ACQ-D)</u>	

955-2.2 Above-Ground or Ground Contact and Fresh Water Immersion Use: The treating of SYP lumber and timber for above-ground or ground contact and fresh water immersion applications, shall be done with, Ammoniacal Copper Zinc Arsenate (ACZA), Copper Azole (CA), Micronized Copper Azole (MCA), Alkaline Copper Quat (ACQ), Micronized Copper Quat (MCQ), or CCA, with the following exceptions:

_____ Treatment of the wood products of the pedestrian bridges, wood rails at buildings or rest areas, and fence posts shall be done either with CA, MCA, or ACQ. **Guardrail Posts, Fence Posts, Bracing and Sheet Piling in Above Ground, Ground Contact or Fresh Water Immersion Applications (Non-Pedestrian Use).** Provide guardrail post, fence post, bracing and sheet piling in accordance with Table 955-2. Approved producers should provide a certification showing the treatment and assay results with every shipment.

Table 955-2				
<u>Product</u>	<u>Type / Species</u>	<u>Category</u>	<u>Treatment</u>	<u>Assay Results</u>
<u>Guardrail Posts, Fence Post, Bracing</u>	<u>Southern Yellow Pine</u>	<u>UC4A</u>	<u>MCA</u>	<u>≥ 2.4 kg/m³ or ≥ 0.15 pcf</u>
			<u>CA-C</u>	
			<u>CA-B</u>	<u>≥ 3.3 kg/m³ or ≥ 0.21 pcf</u>
			<u>Ammoniacal Copper Zinc Arsenate (ACZA)</u>	<u>≥ 6.4 kg/m³ or ≥ 0.40 pcf</u>
			<u>Chromated Copper Arsenate Type C (CCA)</u>	
<u>ACQ-A ACQ-B ACQ-C ACQ-D</u>				
<u>Piling</u>	<u>Cypress</u>		<u>None</u>	<u>N/A</u>
	<u>Southern Yellow Pine</u>	<u>UC4B</u>	<u>ACZA</u>	<u>≥ 9.6 kg/m³ or ≥ 0.60 pcf</u>
		<u>UC4C</u>	<u>CCA</u>	<u>≥ 9.6 kg/m³ or ≥ 0.60 pcf</u>

	<u>Pacific Coast Douglas Fir</u>		<u>ACZA</u>	<u>$\geq 9.6 \text{ kg/m}^3$ or $\geq 0.60 \text{ pcf}$</u>
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955-2.3 Guardrail Post, Fence Post, Bracing and Sheet Piling for Salt and Brackish Water Applications (Non-Pedestrian). Provide guardrail post, fence post, bracing and sheet piling in accordance with this section and Table 955-3. Approved producers should provide a certification showing the treatment and assay results with every shipment.

<u>Product</u>	<u>Type / Species</u>	<u>Category</u>	<u>Treatment</u>	<u>Assay Results</u>
<u>Guardrail Posts, Fence Post, Bracing</u>	<u>Southern Yellow Pine</u>	<u>UC4C</u>	<u>CCA</u>	<u>$\geq 9.6 \text{ kg/m}^3$ or $\geq 0.60 \text{ pcf}$</u>
<u>Piling</u>	<u>Cypress</u>	<u>UC5C</u>	<u>None</u>	<u>N/A</u>
	<u>Southern Yellow Pine</u>		<u>CCA</u>	<u>Zone 1 (Outer):</u> <u>$\geq 40 \text{ kg/m}^3$ or $\geq 2.50 \text{ pcf}$</u> <u>Zone 2 (Inner):</u> <u>$\geq 24 \text{ kg/m}^3$ or $\geq 1.50 \text{ pcf}$</u>
	<u>Pacific Coast Douglas Fir</u>		<u>ACZA</u>	<u>40 kg/m^3 or $\geq 2.50 \text{ pcf}$</u>

955-2.4 Structural Timber: Provide structural timber in accordance with this section and Table 955-4. Approved producers should provide a certification showing the treatment and assay results with every shipment.

<u>Product</u>	<u>Type / Species</u>	<u>Category</u>	<u>Treatment</u>	<u>Assay Results</u>
<u>Boards, Dimensional, Timber</u>	<u>Southern Yellow Pine</u>	<u>UC4B</u>	<u>CCA</u>	<u>$\geq 9.6 \text{ kg/m}^3$ or $\geq 0.60 \text{ pcf}$</u>

955-3 Process.

— All timber and lumber items shall be treated in accordance with AWPA T1.

955-4 Requirements for Preservative Materials.

— ACQ, CCA, CA, MCA and ACZA shall be in accordance with the appropriate AWPA P Standard. MCA shall be in accordance with the appropriate ICC Evaluation Service (ICC-ES) ESR Report.

955-5 Requirements for Retention.

— **955-5.1 Piling:** All pilings shall be treated in accordance with AWPA U1.

— **955-5.2 Structural Timber and Sheet Piles:** All structural timber and sheet piles shall be treated in accordance with AWPA U1.

— **955-5.3 Posts:** All posts shall be treated in accordance with AWPA U1.

~~955-5.4 Determination of Retention: Retention shall be determined by assay performed and certified by the treating company in accordance with the applicable AWPA standards.~~

~~955-6 Penetration Requirements.~~

~~The penetration of the treatment shall be in accordance with AWPA T1.~~

955-37 Handling Waterborne Preservative Treated Piling.

In handling of piles that have been treated with chromated copper arsenate (CCA) or ammoniacal copper zinc arsenate (ACZA), cable slings shall be used. Mechanical grabbers or pointed tools shall not be permitted. Rough or careless handling shall be avoided at all times.

955-48 Identification of Treating Plants for Round Piling.

The treating plant shall brand, or place a distinctive permanent mark, on each round pile, approximately 6 feet from the butt end, such that the plant responsible for the treatment can be readily determined at any time during the service life of the piling.