

3401 FLANGED CHANNEL SIGN POSTS

3401.1 SCOPE

Provide rerolled rail steel and comparable new billet steel posts for signs, delineators, and guide posts.

3401.2 REQUIREMENTS

A Material

Use posts made of rerolled rail steel or a new billet steel meeting the mechanical requirements of ASTM A 499, Grade 60 [420]. For rails weighing at least 91 lb per yd [45 kg per m] of length, use steel meeting the chemical requirements of ASTM A 1.

B Length

Use posts with lengths as shown on the plans or in the special provisions. The Engineer will not allow the use of posts with lengths greater than $\frac{1}{2}$ in [13 mm] under the length shown on the plans or in the special provisions.

C Weight

Use posts with the following nominal weights per length, as shown on the plans:

- (1) 2 lb per ft [3 kg per m],
- (2) 2½ lb per ft [3.7 kg per m],
- (3) 2¾ lb per ft [4.1 kg per m],
- (4) 3 lb per ft [4½ kg per m],
- (5) 4 lb per ft [6 kg per m]

Verify the nominal weights of the posts before punching and without galvanizing, or the addition of anchor plates or other attachments. The Engineer will allow the use of posts weighing up to 5 percent under the weight shown on the plans or the special provisions.

D Shape and Dimensions

Use channel section design posts with flanges for the placement of the signs. Use flanges with a flat front face and positioned in the same plane to provide a smooth, uniform bearing for the sign. Connect the backs of the flanges and the posts flat and parallel to the front. Make the cross section of the posts symmetrical about the central axis, perpendicular to the front and back.

Use straight posts, free of bow, twist, burrs, and other unsightly defects.

E Punching

If the plans specify posts weighing at least 2 lb per ft [3 kg per m] of length, punch holes along the centerline of the back. Punch holes in the diameter and at the spacing as shown on the plans.

If using posts weighing at least 2½ lb per ft [3.7 kg per m] of length, punch ⅜ in [10 mm] diameter holes along the centerline of the back on either 1 in [25 mm] or 3 in [75 mm] centers, beginning 1 in [25 mm] or 1½ in [38 mm] from the top and extending the full length of the post. Space the holes so that the variation in distance between the centers of any two holes is $\pm 1/16$ in [1.6 mm] for each 1 in [25 mm] between the holes.

Punch holes so that cracks do not radiate from the holes.

Table 3401-1 Nominal Dimensions					
Requirement	Mass per Unit of Length				
	2.0 lb [3.0 kg]	2½ lb [3.7 kg]	2¾ lb [4.1 kg]	3.0 lb [4½ kg]	4.0 lb [6.0 kg]
Width, overall across front	3 in [76 mm]	3 in [76 mm]	3 in [76 mm]	3¼ in [83 mm]	3½ in [89 mm]
Width, back surface	1 in [25 mm]	1 in [25 mm]	1 in [25 mm]	1¼ in [32 mm]	1¼ in [32 mm]
Width, flanges (bearing surface)	½ in [13 mm]	½ in [13 mm]	½ in [13 mm]	⅝ in [16 mm]	¾ in [19 mm]
Depth overall, front to back	1⅜ in [35 mm]	1⅜ in [35 mm]	1½ in [38 mm]	1½ in [38 mm]	1.7 in [43 mm]
Thickness of metal, flanges, and back	⅛ in [3 mm]	⅛ in [3 mm]	³ / ₁₆ in [5 mm]	0.16 in [4 mm]	0.2 in [5 mm]
Side	¹ / ₁₀ in [3 mm]	⅛ in [3 mm]	⅛ in [3 mm]	0.15 in [4 mm]	0.15 in [4 mm]
Note: Dimension requirements are for flat flange sections.					

F Galvanizing

Provide posts galvanized in accordance with ASTM A 123.

3401.3 SAMPLING AND TESTING

Obtain a certified mill analysis from the supplier that states the chemical composition of each lot or heat of posts delivered.

The Engineer may take samples for testing from any of the provided posts.

During the inspection of any lot of posts, if the Engineer rejects more than 20 percent of the posts in the lot, the Engineer may reject the entire lot.

3403 HOT-ROLLED STEEL FENCE POSTS

3403.1 SCOPE

Provide hot-rolled steel posts and angles for fencing.

3403.2 REQUIREMENTS

Provide hot-rolled steel line posts and angle section post assemblies for end, gate, corner, or intermediate brace assemblies meeting the requirements of ASTM A 702 and as shown on the plans.

3403.3 SAMPLING AND TESTING

Submit to the Engineer a manufacturer's Certificate of Compliance and a certified mill analysis showing the chemical composition of each delivered lot or heat of posts. The Engineer may take samples for testing from any of the provided posts.

3406 STRUCTURAL METAL FENCE POSTS

3406.1 SCOPE

Provide tubular metal posts and rails, metal rolled-formed "C" posts, and fittings for fencing.

3406.2 REQUIREMENTS

A Materials

Provide posts and rails meeting the requirements of AASHTO M 181, except as noted. Use Grade 1 round posts.

For Alternate Roll Formed posts, provide posts meeting the weight and property requirements of ASTM F 1043 for Heavy Industrial Fence Framework Grade 50 with Type A coating.

Use line posts weighing 2.40 lb per ft [3.6 kg per m] nominal.

Use brace bars weighing 1.35 lb per ft [2.0 kg per m] nominal.

Apply coatings on posts, rails, and fittings after welding and fabrication. Provide tie wires, clips, and bands for fastening chain link fabric to posts, rails, and braces as specified in 3376, "Fence Wire." Use Type IV (PVC) posts, rails, and frames first coated with zinc and then coated with PVC Class B bonded to a thickness of at least 0.010 in [250 µm].

B Dimensions

Provide posts, rails, and stretcher bars required by the contract meeting the requirements of AASHTO M 181, except the Engineer will not accept posts greater than 1 in [25 mm] shorter than the specified length.

Use fittings and hardware to fit securely over the posts.

3406.3 SAMPLING AND TESTING

Provide samples, a manufacturer's Certificate of Compliance, and a certified mill analysis showing the chemical composition of each delivered lot or heat of posts.

3412 WOOD GUARDRAIL POSTS

3412.1 SCOPE

Provide preservative treated wood posts for use in guardrail construction, including round posts and sawed timber posts with rectangular cross sections and offset blocks.

3412.2 REQUIREMENTS

A Round Posts

A.1 Species of Wood

Provide treated round posts made from the following species of wood:

- (1) Northern White Cedar,
- (2) Western Red Cedar,
- (3) Jack Pine,
- (4) Norway (Red) Pine,
- (5) Lodgepole Pine,
- (6) Ponderosa Pine, or
- (7) Southern (Yellow) Pine.

A.2 Seasoning

Air-season wood for treated posts. The wood may be conditioned as part of the treating process for penetration of preservative without damage to the posts.

A.3 Dimensions and Finish

Provide naturally round posts. Shave off inner bark and closely trim knots.

Saw the bottom end of the posts square. Provide posts in the length, nominal diameter, and with a top finish as shown on the plans.

Complete debarking, trimming, and sizing of posts before applying the preservative treatment.

A.4 Quality

Do use wood with the following defects:

- (1) Unsound and unsmooth knots that impair the post strength,
- (2) Short kinks, defined by a line drawn between centers of the butt and tip falling outside the center of the post by more than 2 percent of the post length,
- (3) Checks wider than $\frac{1}{4}$ in [6 mm],
- (4) Unightly and exaggerated winding twists,
- (5) Decay, except Northern White Cedar may contain one pipe rot no greater than $\frac{3}{8}$ in [10 mm] in diameter in the top of the post,
- (6) Butt rot and ring rot totaling greater than 5 percent of the butt area in Northern White Cedar,
- (7) Defects that affect the appearance or impair the strength or durability of the post as determined by the Engineer, and
- (8) One-way sweep greater than 2 in [50 mm].

B Sawed Timber Posts

B.1 Species and Grade

Provide sawed timber posts made from the following species of wood:

- (1) Douglas Fir,
- (2) Southern (Yellow) Pine,
- (3) Jack Pine,
- (4) Norway (Red) Pine, or
- (5) Ponderosa Pine.

Provide sawed timber posts in the grade meeting

Provide sawed timber posts in the grade meeting the following requirements and characteristics:

- (1) Stained sapwood,
- (2) Splits $\frac{3}{4}$ of the thickness,
- (3) Seasoning checks, single or opposite each other, with a sum total depth equal to half of the post thickness,
- (4) Heavy torn grain,
- (5) Close grain,
- (6) Slope of grain over the full length of post no greater than 1 in 12,
- (7) Pitch streaks with medium pitch pockets,
- (8) Wane $\frac{1}{8}$ of any face,
- (9) Shakes $\frac{1}{3}$ of the thickness, and
- (10) Well-spaced, sound, and tight knots no wider than the following:
 - (10.1) $1\frac{3}{16}$ in [30 mm] in 5 in [130 mm] posts,
 - (10.2) $1\frac{1}{2}$ in [40 mm] in 6 in [150 mm] posts, and
 - (10.3) 2 in [50 mm] in 8 in [200 mm] posts.

For rectangular post sizes, use the wider face to determine the maximum size of the knots permitted.

B.2 Dimensions

Saw the posts and offset blocks to the nominal dimensions as shown on the plans. The Engineer will not require surfacing. Do not allow the sawing dimensions for dry material to vary from the nominal dimensions by greater than $-\frac{1}{4}$ in [6 mm] or $+\frac{1}{2}$ in [13 mm].

C Preservative Treatment

Treat posts and offset blocks in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products." Provide treated posts and offset blocks with a dry surface and free of excess preservative.

3412.3 SAMPLING AND TESTING 3491

3413 WOOD FENCE POSTS (TREATED)

3413.1 SCOPE

Provide preservative treated wood posts for fence construction.

3413.2 REQUIREMENTS

A Species of Wood

Provide posts cut from live, growing trees and made from Northern White Cedar or any species of Pine, except Lodgepole Pine.

B Seasoning

Air-season or otherwise condition wood posts to allow penetration of the preservative.

C Manufacture

C.1 Peeling

Shave off inner bark and closely trim knots before treating.

C.2 End Finish

Cut the ends of posts square. If setting the post by driving, the Contractor may cut the larger end to a blunt point with a length no greater than 1½ times the diameter of the pointed end.

C.3 Dimensions

Provide naturally round posts in the length and minimum diameter as required by the contract. The Contractor may provide posts with a diameter at the small end no greater than 2 in [50 mm] greater than the minimum diameter required by the contract.

C.4 Quality

Do not use wood with the following defects:

- (1) Knots that impair the post strength,
- (2) Short kinks, defined by a line drawn between centers of the butt and tip falling outside the center of the post by more than 2 percent of the post length,
- (3) Checks wider than ¼ in [6 mm],
- (4) Unsightly and exaggerated winding twists,
- (5) Decay, except Northern White Cedar may contain one pipe rot no greater than ¼ in [6 mm] in diameter,
- (6) Butt rot and ring rot totaling greater than 5 percent of the butt area in Northern White Cedar, and
- (7) Defects that affect the appearance or impair the strength or durability of the post as determined by the Engineer.

D Preservative Treatment

Treat posts in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products."

Cut, trim, and point ends before treatment.

Provide treated posts with a dry surface and free from dripping or excess preservative.

3413.3 SAMPLING AND TESTING 3491

3426 STRUCTURAL TIMBER

3426.1 SCOPE

Provide structural timbers for dimensional lumber, joists and planks, beams and stringers, and posts and timbers.

A Definitions of Terms ASTM D 9

B Nomenclature ASTM D 1165

3426.2 REQUIREMENTS

A Species of Wood

Use West Coast Douglas Fir or Southern (Yellow) Pine unless otherwise shown on the plans, specified in the special provisions, or specified in the purchase order.

B Standard Sizes

Provide structural timber meeting the dimensions specified for either rough or surfaced stock.

C Preservative Treatment

Provide timber treated in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products" if specified.

D Grading

Provide commercial stress grades of lumber and timber with grade descriptions meeting the stress requirements. The numerical stress values for structural timber and lumber required by the contract are the minimum requirements. The Contractor may provide stress graded material meeting grading rules developed from ASTM D 245, Methods for Establishing Structural Grades of Lumber as tabulated by the National Design Specification for Wood Construction (NDS).

The Standard Grading and Dressing Rules of the West Coast Lumber Inspection Bureau, the Standard Grading Rules for Western Lumber of the Western Wood Products Association, and the Standard Grading Rules for Southern Pine of the Southern Pine Inspection Bureau each meet the requirements of ASTM D 245.

3426.3 SAMPLING AND TESTING

Sample and test for preservative treatment in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products."

The Department will make final inspection and acceptance in accordance with the following:

- (1) For direct purchases by the Department, at the point of delivery.
- (2) For materials provided and installed by a Contractor, at the site of the work.

3457 LUMBER

3457.1 SCOPE

Provide lumber for general building purposes.

Refer to ASTM D 9 for definition of terms.

3457.2 REQUIREMENTS

Use Douglas Fir, Norway (Red) Pine, Ponderosa Pine, White Pine, or Southern (Yellow) Pine.

Provide grade marked lumber graded in accordance with grading rules, adopted by regional associations of lumber manufacturers, in accordance with the requirements of the American Lumber Standards.

Provide No. 1 Grade lumber, unless otherwise specified.

3457.3 SAMPLING AND TESTING 3426

3462 PLANK FOR WEARING COURSE

3462.1 SCOPE

Provide lumber for use as plank for wearing course on bridges.

3462.2 REQUIREMENTS

Refer to ASTM D 9 for the definition of terms and provide plank made from the following species:

- (1) Douglas Fir,
- (2) Norway (Red) Pine,
- (3) Ponderosa Pine,
- (4) White Pine,
- (5) Southern (Yellow) Pine, or
- (6) Northern White Poplar.

Provide plank meeting the following characteristics and requirements:

- (1) Sound live-cut timber,
- (2) Well seasoned,
- (3) Free from pocket rot, dry rot, red heart, cavities, bad checks, loose slivers, loose heart, shakes, splits, any incipient decay, unsound, loose or decayed knots, and ant or worm holes,
- (4) Contains no checks in the ends of planks extending greater than 9 in [225 mm] into the piece,
- (5) Free from crook,
- (6) Contains no corner wane greater than ½ in [13 mm],
- (7) Surfaced on one side and one edge (S1S1E) or surfaced on two edges,
- (8) Lengths from 6 ft to 16 ft [2 m to 5 m],
- (9) Uniform width and thickness through the entire length,
- (10) Straight with square-sawed ends, and
- (11) Skip on the planed surfaces permitted, not exceeding 15 percent of the surfaced area of any individual plank.

Surface planks with heart center appearing on one side, on the heart side.

For any one bridge, provide planks of the same thickness of at least 1 ½ in [38 mm] after surfacing.

For any one bridge, the Contractor may provide planks with nominal widths of 6 in [150 mm], 8 in [200 mm], or both. Ensure the widths after surfacing are at least 5 ½ in [140 mm] for planks with a nominal width of 6 in [150 mm] and 7¼ in [185 mm] for planks with a nominal width of 8 in [200 mm]. Provide planks of each nominal width for any one bridge with the same actual width.

If the contract requires treated plank, provide planks treated with preservative in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products."

3462.3 SAMPLING AND TESTING 3426

3471 TIMBER PILING

3471.1 SCOPE

Provide timber piling for treated and untreated foundation piles below water level.

3471.2 REQUIREMENTS

Provide piling meeting the following requirements:

- (1) Capable of withstanding driving without breaking or suffering excessive brooming or splitting,
- (2) Cut from sound, live trees, except the Contractor may use fire-killed, blight-killed, or wind-felled trees if no evidence of charred sapwood, wood decay, or insect attachment, and
- (3) Free from defects impairing strength or durability.

A Permitted Species

A.1 Untreated Piles

Provide the following types of timber for untreated piles:

- (1) Pine,
- (2) Tamarack,
- (3) Douglas Fir (Coast Region),
- (4) Oak,
- (5) Elm, or
- (6) Hard Maple.

A.2 Treated Piles

Provide the following types of timber for treated piles:

- (1) Norway (Red) Pine,
- (2) Jack Pine,
- (3) Ponderosa Pine,
- (4) Southern Yellow Pine, or
- (5) Douglas Fir (Coast Region).

A.3 Temporary Structures

If the contract allows untreated timber piling for temporary structures, the Contractor may use any species that will withstand driving to the bearing and penetration required by the contract without damage to the piling.

B Quality of Timber

Provide Douglas Fir, Norway (Red) Pine, and Jack Pine with a sapwood thickness at the butt end of at least $\frac{3}{4}$ in [19 mm]. Provide Southern Yellow Pine and Ponderosa Pine with a sapwood thickness at the butt end of at least 2 in [50 mm].

Provide untreated trestle piles with a heartwood diameter of at least 80 percent of the diameter of the pile at the butt end.

Do not use timber with checks wider than $\frac{1}{4}$ in [6 mm].

C Peeling

Peel piles by removing the rough bark and at least 80 percent of the inner bark. Do not leave strips of inner bark greater than $\frac{3}{4}$ in [20 mm] wide and 8 in [200 mm] long on the pile. Provide at least 1 in [25 mm] of cleaned wood surface between any two strips of inner bark. Provide piles with clean wood on at least 80 percent of the surface circumference at any location on the pile.

D Straightness

Cut piles above the ground swell and provide piles with a gradual taper from the point of butt measurement to the tip.

Ensure that a line drawn from the center of the butt to the center of the tip lies wholly within the body of the pile, and the distance from this line to the center of the pile at any point along the pile is no greater than 1 percent of the length of the pile.

The Contractor may use piles with bends within the upper 75 percent of the pile length, measured from the butt end toward the tip end, if the deviation of the centerline of the pile from a line drawn from the center of the pile above the bend to the center of the pile below the bend is no greater than 4 percent of the length of the bend and is no greater than 2 $\frac{1}{2}$ in [64 mm]. Do not use piles with bend deviations greater than 1 in [25 mm] if located within the lower 25 percent of the pile length or if located within 10 ft [3 m] from the tip end.

Use piles free of twists greater than half the circumference in any 20 ft [6 m] of length.

Saw off the ends of piles square. Trim knots close to the body of the pile.

E Knots

Do not use piles with unsound knots. The Contractor may use piles with sound knots having diameters no greater than 4 in [100 mm] or 35 percent of the minimum diameter of the pile measured at the knot location. Do not use piles if the sum of the

diameters of all knots occurring in a 12 in [300 mm] length of pile is greater than twice the diameter of the maximum allowable knot size measured at the knot location.

Do not use timber with knot clusters. The Department defines a knot cluster as groups of at least two knots deflecting the fibers of the wood around the entire unit. The Department does not consider a group of single knots, with fibers deflected around each knot separately, as a cluster, regardless of their close proximity.

F Density

Ensure the number of annual rings in any pile, measured at the butt end, averages at least 4 rings per 1 in [25 mm] over the outer 3 in [75 mm] of a representative radial line from the pith. Ensure the outer 1 in [25 mm] within the measured section contains at least 4 rings.

G Dimensions

Provide sound piles with a minimum diameter at the tip end, measured under the bark, in accordance with the following:

Table 3471-1 Minimum Diameter at Tip End	
Length of Pile, ft [m]	Tip Diameter, in [mm]
< 40 [12]	8 [200]
≥40 – ≤74 [12 – 22]	7 [175]
>74 – ≤90 [22 – 27]	6 [150]
> 90 [27]	5 [125]

Provide sound piles with a minimum diameter, measured under the bark at 3 ft [1 m] from the butt end in accordance with the following:

Table 3471-2 Minimum Diameter, 3 ft [1 m] from Butt End	
Length of Pile, ft [m]	Diameter, in [mm]
< 25 [8]	11 [280]
≥ 25 – ≤ 54 [8 – 16]	12 [300]
> 54 [16]	13 [330]

Determine the average diameter of a pile by measuring and dividing the circumference by 3.14, or by averaging the maximum and minimum diameters at the locations specified in Table 3171-1 and Table 3171-2 for butt and tip diameters.

Ensure the diameter of the pile, measured at the butt end, is no greater than 20 in [500 mm].

H Preservative Treatment

Treat piling in accordance with 3491, "Preservatives and Preservative Treatment of Timber Products," unless otherwise required by the contract.

3471.3 SAMPLING AND TESTING 3426

3491 PRESERVATIVES AND PRESERVATIVE TREATMENT OF TIMBER PRODUCTS

3491.1 SCOPE

Apply wood preservatives and preservative treatment using the pressure process for lumber, timber, piling, posts, poles, plywood, and structural glued laminated members.

3491.2 REQUIREMENTS

A Materials

A.1 Timber Products

Provide timber, lumber, piling, plywood, and posts as required by the contract.

The Department considers Southern Pine the same as Southern Yellow Pine, and Red Pine the same as Norway Pine.

A.2 Preservatives

Provide preservatives listed on the Approved/Qualified Products List and then only for the specific application for which they are approved. Provide preservative meeting the requirements of AASHTO M 133 as modified herein.

B Preservative Treatment

Provide preservative treatment meeting the requirements of AWPA Standard T1 and the applicable AWPA Use Category Standards (U1).

B.1 Preparation for Treatment

B.1.a General Requirements

Because difficulty may be encountered in obtaining the specified retention and penetration, ensure the supplier uses wood materials having sufficient sapwood thickness to permit the specified penetration and retention. Ensure suitable conditioning and, for some species, incising prior to the treatment, and the use of treating conditions that do not damage the wood in accordance with AWPA Standards T1, U1, and the applicable AWPA Use Category Standards.

B.1.b Framing

Provide framing with bored holes in accordance with Table 3491-1:

Hardware Types	Diameter
Round drift bolts and dowels	Equal to diameter of bolt or dowel
Square drift bolts and dowels	$\frac{1}{16}$ in [2 mm] greater than least dimension of bolt or dowel
Machine bolts	$\frac{1}{16}$ in [2 mm] greater than diameter of bolt
Rods	$\frac{1}{16}$ in [2 mm] greater than diameter of rod
Lag screws	No greater than $\frac{1}{16}$ in [2 mm] of the body diameter of the screw at the root of the thread

B.1.c Incising

Incise the wood to allow penetration of the preservative. Incise lumber and timbers of species difficult to penetrate, including Douglas Fir, Western Larch, Spruce, Hemlock, Redwood, and Jack Pine before treatment such that the incising will not make the material unfit for use. Incise pines if predominantly heartwood. The Engineer may waive the incising requirement if the Contractor can meet penetration and retention requirements without incising.

B.1.d Seasoning

For sawn material treated with an oil-type preservative and used in buildings or other construction where high moisture content or shrinkage would be objectionable, dry to a moisture content no greater than 19 percent before treatment.

Measure the moisture content at a depth equivalent to the required preservative penetration.

Unless the contract requires otherwise, dry lumber no greater than 4 in [100 mm] in nominal thickness and plywood treated with a waterborne preservative after treatment to a moisture content no greater than 19 percent.

C Method of Treatment

Unless the contract requires otherwise, the Contractor may use any of the preservative materials listed in this subsection. Use the same preservative on the entire product provided for each contract item, unless the contract requires otherwise.

Use the full-cell process to treat timber products if using with waterborne preservatives.

Field treat cuts, bored holes, and damaged treated areas meeting the requirements of AWPA M4, except do not use coal tar products, including roofing cement.

D Results of Treatment

Unless the contract requires otherwise, provide preservative retention in accordance with Table 3491-1. Determine the preservative retention meeting the requirements of the AWPA method referenced in Table 2 of the Approved/Qualified Products List for the treatment of timber products.

Provide preservative penetration and other timber product treatments meeting the requirements of AWPA Standard T1 and in accordance with Table 3491-1.

E Handling Treated Products

Care for and handle preservative treated wood products in accordance with the requirements of AWPA Standard M4.

F Product Marking

Hammer, heat brand, dye stamp, or metal tag the treated material marking the species, commercial grade, and type of treatment meeting the requirements of AWPA M1 and AWPA M6, except brand piles on the butt end. Include the charge number in the markings on treated piles.

The Contractor may bundle sawn materials no greater than 2 in [50 mm] in nominal thickness and plywood treated with oil-type preservatives with the tags attached to the bundles. For sawn materials treated with waterborne preservatives, the Contractor may dye stamp the information on the outer pieces of the bundle instead of using bundle tags.

3491.3 SAMPLING AND TESTING

Provide for the inspection of materials and treatments meeting the requirements of AWPA M2 by an independent commercial inspection agency. Only use agencies approved by the Materials Engineer for materials provided to Department projects. Engage the inspection agency directly or through the supplier of the treated wood products.

The Department will include the cost of inspection with the relevant contract pay items for treated wood products.

Submit to the Engineer a manufacturer's Certificate of Compliance with each shipment of treated materials. Submit the Certificate of Compliance, the inspection

report from the commercial inspection agency, and the treating company's report of treatment to the Engineer.

The Department may inspect treated products upon delivery. Consider the Department's inspection results conclusive and binding.

Table 3491-2 Product and AWP A Use Categories				
Product Usage*		AWPA Use Category	AWPA Commodity Specification U1	
			Section	Special Requirements
A	Piles:			
A1	Round	UC4C	6E	—
B	Posts: Fence, guide, and sight:			
B1	Round	UC4A	6B	—
B2	Sawn four sides	UC4A	6A	Subsection 4.3
C	Posts: guardrail and spacer blocks, noise walls:			
C1	Round	UC4B	6B	—
C2	Sawn four sides	UC4C	6A	Subsection 4.3
D	Poles, lighting:			
D1	Round	UC4B	6D	—
E	Lumber and timber:			
E1	Bridges, prefab (nail laminated) panels, other structural members, culverts, and other issues	UC4C	6A	Subsection 4.3
E2	Noise wall facing, at or below ground level	UC4B	6A	—
E3	Building repair†, at or below ground level	UC4A	6A	—
F	Lumber and timber (not in contact with ground or water):			
F1	Handrails, sidewalk plank	UC3B	6A	Subsection 4.3
F2	Noise wall facing, above ground level	UC3B	6A	Subsection 4.3
F3	Building repair†, above ground level	UC3B	6A	Subsection 4.3

**Table 3491-2
Product and AWP A Use Categories**

Product Usage*		AWPA Use Category	AWPA Commodity Specification U1	
			Section	Special Requirements
G	Glued-laminated structural members: (Treated after gluing)	UC4B	6F	—
H	Plywood:			
H1	In contact with ground or water	UC4A	6F	—
H2	For use above ground	UC3B	6F	—
<p>* Refer to the Approved/Qualified Products List for information regarding which products may be used on which applications, such as near water, residential, or recreational areas.</p> <p> For products listed by the AWP A or approved by the International Code Council-Evaluation Service (ICC-ES). Include passing results from the test method AWP A E7. Do not substitute test method AWP A E20.</p> <p>† Do not use treated wood to construct new buildings or associated components, except treated wood may be used as sill plates.</p>				