

OTHER BOARD GRADES

4

OTHER BOARD GRADES

ALL SPECIES
ALL WIDTHS
ALL THICKNESSES

FOREIGN SPECIES

SCOTS PINE (Archangel) RADIATA PINE

In the interest of promoting product uniformity, NELMA has adopted the Select and Common Board Rules of the Western Wood Products Association (WWPA).

Grade descriptions for Select lumber are based on a piece of S4S 1" x 8" x 12' long. The number and extent of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. Characteristics appearing on the edges of S2S or rough stock widths which will be removed in surfacing are not given the same consideration as characteristics in S4S lumber. In random width shipments sold on board rule scale, the grade will be determined by the full width of the piece.

Any piece of lumber in the Select grade showing a serious combination of the listed characteristics which might impair its intended use is excluded from the grade.

7.1 SELECTS (10.10 WWPA)

There are three grades of Selects for Other Board Rules adopted by NELMA: C & BETTER SELECT, D SELECT, and STAINED SELECT.

In Select grades, all pieces are graded from the better side or face. The reverse side may be somewhat lower in quality with more restrictions placed on the back of the higher grades.

7.1.1 C Select (10.12 WWPA)

Lumber of this grade is recommended for all finishing uses where fine appearance is essential. It is one of the most sought after products from the clear portion of the log. It is widely used for high quality interior trim and cabinet work with natural, stain or enamel finishes.

Characteristics and Limiting Provisions are:

Checks — Small, well scattered seasoning checks on the surface.

Skip — Light skip on one edge, one medium or two light skips on the back.

Stain — Medium stained wood in an occasional piece covering 1/3 the face, or a greater area of lighter stain when not in combination with other characteristics.

Torn or Raised Grain — Very light.

Wane — On reverse side, 1/2 the thickness, 1/8 the width, 1/4 the length in an occasional piece.

Warp —

Crook — As shown in para. 752.0.

Cup — Very light.

Twist — 7/4 and thinner, 1/2 of very light.

8/4 and thicker, 1/4 of very light.

See para. 752.0.

Any one of the following characteristics:

Knots — Two small, sound, tight knots.

Pitch — Light pitch over not more than 1/2 the face.

Pitch Streak — One small pitch streak.

Pockets — Two very small pockets.

Equivalent characteristics no more damaging than any of the above.

7.1.2 D Select (10.13 WWPA)

Lumber of this grade has many of the fine appearance features of C Select grade. Although generally less restrictive than C Select, D Select is suitable where the requirements for finishing are less exacting. The grade is between the higher finishing grades and the Board grades as many pieces have a finish appearance on one side, the reverse side showing larger or more numerous characteristics.

Characteristics and Limiting Provisions are:

Checks — Small, scattered seasoning checks, medium checks on back.

Skip — One very light skip on face, hit and miss

on back; one edge may have 1/16" skip for 1/2 the length in an occasional piece.

Split — Short split on one end or equivalent.

Stain — Medium stained wood over entire face if otherwise high quality.

Torn or Raised Grain — Light, in scattered spots.

Wane — On reverse side, 3/4 the thickness, 1/4 the width, 1/4 the length.

Warp —

Crook — As shown in para. 752.0.

Cup — Very light.

Twist — 7/4 and thinner, very light.

8/4 and thicker, 1/2 of very light.

See para. 752.0.

Any one of the following characteristics:

Knots — Four small, fixed knots.

Pitch — Medium pitch over not more than 2/3 of face, less if heavy.

Pitch Streak — One medium pitch streak.

Pockets — Four small pockets.

Equivalent characteristics no more damaging than any of the above.

One 4" cutout is permitted in pieces of otherwise high appearance. Cutting must be directly on an end or more than 2' from an end. Cutouts are restricted to pieces 12' and longer and 10% of an item.

7.1.3 STAINED SELECTS (10.19 WWPA)

Stained Selects are graded D Select or better in all characteristics except stain, admitting all degrees of stain.

7.2 COMMONS (30.00 WWPA)

Certain characteristics found in Board lumber are difficult to evaluate to an exact degree because of the nature of the portion of the log from which Boards are produced. Some limiting characteristics must be

evaluated by applying sound judgment and all characteristics must be considered in determining the grade. Any piece judged to contain a serious combination of the listed characteristics, even though some of the characteristics may not be limiting by themselves, is excluded from the grade. Likewise, an otherwise “high line” piece may be placed in a grade even though one or two of its characteristics may slightly exceed the limitations described in the rules. Such pieces will be of exceptional quality otherwise and might grade one or more grades higher, except for such characteristics. Therefore, each individual piece is considered in its entirety in determining the grade.

When characteristics are listed as applying to a specific size piece (such as 1” x 8” x 12’) the number and extent of the same characteristics in larger and smaller pieces may vary in proportion to the size of the piece.

Knot descriptions are given in para. 718.0. Because most Board lumber is produced from the inner portion of the log, the size of a knot may not be the determining factor in establishing a particular grade. Therefore, some pieces of a lower grade may have smaller knots than some pieces of a higher grade. Knot sizes cannot be satisfactorily established to an exact degree for any particular grade of Board lumber. It is generally the character or condition of the knot and not the size that determines the grade of the piece. Spike knots are permitted in all grades of Board lumber, providing they have no more effect than the other knots permitted in an individual grade.

There are five Common Board grades of Other Northeastern Species: 1 Common, 2 Common, 3 Common, 4 Common, and 5 Common. The grades of 1 Common and 2 Common may be grouped together as 2 & Btr. Common.

7.2.1 1 Common (30.11 WWPA)

Lumber of this grade, while not usually carried in stock in large quantities, may be ordered when the ultimate in fine appearance of knotty material is required. This grade includes all sound, tight-knotted stock with the size and character of the knot the determining factor of the grade.

Characteristics and Limiting Provisions are:

Checks — Four small surface seasoning checks in a 1” x 8” x 12’.

Knots — Sound, tight knots and smooth red knots are limited as follows:

Face Width	Knot Size
2”	5/8”
3”	7/8”
4”	1-1/4”
6”	1-3/4”
8”	2-1/4”
10”	2-1/2”
12”	2-3/4”
14” and wider	3”

The knot sizes listed above will generally be the maximum size found in this grade. However, there may be pieces of otherwise exceptional quality which may contain slightly larger knots than those shown.

Black knots must be smooth, sound, tight and small.

An occasional piece may have one angling 3/8” hole on the edge, extending into the wide face not more than 1/2” and into not more than 1/2 the thickness.

Pitch — Light pitch over not more than 1/8 the area.

Pith — Firm heart pith, 1/4” wide, 1/6 the length.

Pockets — Two very small dry pockets in a 1” x 8” x 12’.

Skip — Three very light skips on one edge or two light on back in a 1” x 8” x 12’.

Split — Very short splits, limited to one on each end.

Stain — Light stain over not more than 1/3 of face.

Torn or Raised Grain — Very light.

Wane — On back, 1/2 the thickness, 1/8 the width, 1/4 the length in occasional pieces.

Warp —

Crook — As shown in para. 752.0.

Cup — Very light.

Twist — 7/4 and thinner, very light.

8/4 and thicker, 1/2 of very light.

See para. 752.0.

7.2.2 2 Common (30.12 WWPA)

Lumber of this grade is intended primarily for use in housing and light construction where it is exposed such as in paneling, shelving and other uses where a knotty type of lumber with fine appearance is required. Since knots can easily be sealed off for painting, this also is an excellent grade for siding, cornice, soffits, fascia and other exterior uses.

Characteristics and Limiting Provisions are:

Checks — Two medium seasoning checks or equivalent smaller in a 1" x 8" x 12'. Light roller checks on back, not more than 1/4 the length.

Knots — Knots are limited as follows:

Face Width	Red Knots Sound & Tight	Black Knots Sound & Tight
2"	1"	3/8"
3"	1-1/4"	1/2"
4"	2"	3/4"
6"	2-1/2"	1"
8"	3"	1-1/4"
10"	3-1/4"	1-3/8"
12"	3-3/4"	1-1/2"
14" and wider	4"	1-3/4"

The knot sizes listed above will generally be the maximum size found in this grade. However,

there may be pieces of exceptional quality otherwise, which may contain slightly larger knots than those shown.

An occasional piece may have two small fixed knots or one angling 3/4" hole on the edge extending into the wide face not more than 1" and not over 1/2 the thickness of the piece.

Black knots of maximum size in this grade are accepted in pieces of high quality and limited to one in the 16' and longer lengths, and proportionately smaller in the shorter lengths.

Pieces containing numerous smaller black knots shall be of quality in keeping with the requirements of this grade.

Pin Holes — A dozen scattered pin holes in a 1" x 8" x 12'.

Pitch — Streaks and patches of light to medium pitch covering 1/2 of face or two very small streaks of heavy pitch.

Pith — Firm heart pith, not more than 1/2" wide, 1/2 the length.

Pockets — Three small, dry well scattered pockets or equivalent smaller in a 1" x 8" x 12'.

Shake — Light shake, not over 1/6 the length.

Skip — Medium skip on back limited to 1/4 of length, medium on edge limited to 1/3 of length.

Split — Short splits, limited to one on each end.

Stain — Medium stained wood over entire face on pieces of otherwise high quality.

Torn or Raised Grain — Light.

Wane — On back, 1/2 the thickness, 1/6 the width, 1/3 the length or equivalent in an occasional piece.

Warp —

Crook — As shown in para. 752.0.

Cup — Light.

Twist — 7/4 and thinner, very light.

8/4 and thicker, 1/2 of very light.
See para. 752.0.

7.2.3 3 Common (30.13 WWPA)

Lumber of this grade is widely used for a large range of building purposes where appearance and strength are both important. With characteristics limited to assure a high degree of serviceability, this grade is often used for shelving, paneling and siding and is especially suited for fences, boxes, crating, sheathing and many industrial uses.

Characteristics and Limiting Provisions are:

Checks — Medium seasoning checks. Roller checks (see Shake).

Knots — Knots are limited as follows:

Face Width	Red Knots Sound & Tight	Unsound Knot Loose Knot Knot Hole
2"	1-3/16"	3/8"
3"	1-1/2"	5/8"
4"	2-1/2"	3/4"
6"	3"	1-1/4"
8"	3-1/2"	1-1/2"
10"	4"	1-3/4"
12"	4-1/2"	2-1/4"
14" and wider	5"	2-1/2"

The knot sizes listed above will generally be the maximum size found in this grade. However, there may be pieces of exceptional quality otherwise, which may contain slightly larger knots than those shown.

Black knots may be 2/3 size of allowable red knots, two maximum in each 12' length or equivalent smaller tight black knots.

Fixed knots may be equal to knot hole in size and are limited to two per 12' of length when not in

serious combinations with other characteristics. Only one maximum size knot hole is permitted in any one piece, but two equivalent smaller knot holes may be permitted if well spaced and the piece is otherwise of high quality.

Pin Holes — 30 per square foot or four small holes in a 1" x 8" x 12'.

Pitch — Heavy pitch over 1/2 the area or two small streaks of massed pitch.

Pockets — Medium, well scattered.

Shake — Light to medium shake, scattered full length in otherwise 2 Common type or one 3' light roller check on face, light to medium roller check 2/3 length on back.

Skip — One medium skip on face, hit and miss skips on back for 2/3 the length. One edge may have 1/8" skip for 1/2 the length or 1/16" skip full length.

Split — 1/6 the length.

Stain — Medium to heavy stained wood over the entire face.

Torn Grain — Medium.

Unsound Wood — Similar to firm white speck, limited to 1/8 the area.

Wane — On back, 2/3 the thickness, 1/4 the width, 1/2 the length or equivalent in an occasional piece.

Warp —

Crook — As shown in para. 752.0.

Cup — Medium.

Twist — 7/4 and thinner, light.

8/4 and thicker, 1/2 of light.

See para. 752.0.

7.2.4 4 Common (30.14 WWPA)

Lumber of this grade is more widely used than other grades for general construction purposes. Boards of this grade are used for sub-floors, roof and wall sheathing, concrete forms, low cost fencing, crating and

similar types of construction. It is a popular grade in general construction and industry use. Although appearance is given consideration, pieces are graded chiefly for serviceability, as they are seldom used in exposed construction.

Characteristics and Limiting Provisions are:

Checks — Large seasoning checks. Medium to heavy roller checks full length on back, light to medium 2/3 length on face.

Knots — Knots are limited as follows:

Face Width	Fixed Knots Firm & Tight Knots	Loose Knots Knot Hole
2"	1-5/16"	3/4"
3"	1-3/4"	1"
4"	3"	1-1/2"
6"	3-1/2"	2"
8"	2/3 Width	2-1/2"
10"	2/3 Width	3"
12"	2/3 Width	3-1/2"
14" and wider	2/3 Width	4"

Knot holes and/or loose knots of maximum size are limited to three for each 12' of length.

Pin Holes — Pin holes or small holes not limited.

Pitch — Heavy streaks and patches of massed pitch over 1/2 area in otherwise high quality pieces.

Pockets — Large.

Shake — Medium to heavy shake full length.

Skip — Hit and miss skip on face, 1/16" skip full length if surfaced one side. One edge may have 1/4" skip for 1/2 the length or 1/8" skip full length.

Split — 1/3 the length.

Stain — Heavy stained wood.

Torn Grain — Heavy.

Unsound Wood — Scattered spots of unsound wood or not firm honeycomb over 1/4 the face.

Wane — 1/2 the thickness, 1/8 the width, 1/6 the length on face. Heavy wane on back, but equivalent to knot holes if through thickness.

Warp —

Crook — As shown in para. 752.0.

Cup — Heavy.

Twist — 7/4 and thinner, medium.

8/4 and thicker, 1/2 of medium.

See para. 752.0.

White Speck and Honeycomb — Firm.

7.2.5 5 Common (30.15 WWPA)

Lumber of this grade is intended for use in construction where lumber of a higher grade is not needed. This grade permits characteristics such as stain, large knots, very large holes, unsound wood, massed pitch, heavy shake, splits and wane in varying stages or degrees singly or in combinations. Many pieces in this grade are only slightly lower than the 4 Common grade while others will be at the opposite end of the grade level. Although 5 Common is the lowest Common Board grade, it is suitable for uses in economical construction where appearance and strength are not basic requirements.

7.3 KNOTTY PANELING (WWPA 30.20)

Knotty Paneling is machined to pattern and may be furnished in any grade for Boards shown under para. 7.2. When ordered, the appropriate grade name should be specified.

There are two special grades of knotty paneling: SELECTED 2 COMMON and SELECTED 3 COMMON.

Both grades may be furnished in any species and are graded under provisions for the 2 and 3 Common Board Grades as shown in para. 7.2.2 and 7.2.3 with further limitations set forth in para. 7.3.1 and 7.3.2. Grades are determined prior to machining and shipment may include up to 10% below grade stock which may result from running to pattern.

7.3.1 SELECTED 2 COMMON (WWPA 30.22)

(For Knotty Paneling)

Must conform to para. 7.2.2 and pieces with the following characteristics shall be removed:

Black knots only.

Knots not firmly fixed in the pattern area.

Large edge knots which might chip out in surfacing.

Characteristics, other than knots, which would mar appearance, such as heavy blue stain, heavy pitch, and medium and large pockets.

7.3.2 SELECTED 3 COMMON (WWPA 30.23)

(For Knotty Paneling)

Must conform to para. 7.2.3 and pieces with the following characteristics shall be removed:

Black knots in the pattern area.

Loose knots or knot holes.

Large, red edge knots which might chip out in surfacing.

Characteristics, other than knots, which would mar appearance, such as heavy blue stain, massed pitch, large pockets, and heavy heart shake.

8.0 SPECIAL BOARD GRADES

Mills located in the Northeastern and Great Lake regions produce a number of special board grades either for fine appearance uses or as cut-up stock for finished products. These grades apply to all softwood species and aspen, except in the case of Eastern White Pine Furniture grades under para. 8.1.

8.1 EASTERN WHITE PINE FURNITURE GRADES

4/4 to 12/4 thick.

4" and wider.

4' to 16' lengths including not over 5% of 4' & 5'.

There are two furniture grades of Eastern White Pine: NELMA No. 1A (NSLB No. 1) and NELMA No. 2A (NSLB No. 2). Furniture grade pine is selected stock having well distributed, sound, completely intergrown, red knots that will provide sound cuttings on a fixed percentage of the good face.

CUTTINGS — Characteristics and Limiting Provisions:

- Face: 1. One sound, completely intergrown red knot is required per cutting with a minimum of one for each 3 linear feet.
2. One sound, tight, black knot up to 1/4" in diameter or equivalent smaller is allowed in cuttings 6 feet or over in length.
3. Not permitted: any other black knots, pith, checks, shake, splits, warp, wane, pitch pockets, worm holes, rot, stain or other defects that seriously weaken the cutting.

Back: Sound, allowing no rot, shake, wane, unsound knots, or other defects that seriously weaken the cutting.

8.1.1 NELMA No. 1A Furniture

Minimum sizes of cutting are 4" x 2' or 3" x 3'. The allowable number of cuttings is calculated by adding 1 to the surface measure of the piece, dividing by 3, and dropping any fraction:

Surface Measure	Number of Cuttings
2'—4'	1
5'—7'	2
8'—10'	3
11'—13'	4
14' and over	5

This grade requires sound cuttings of 66-2/3% or better on face and 33-1/3% or better on the back of any piece. Pieces producing 75% or better sound face cuttings are allowed one additional cutting.

8.1.2 NELMA No. 2A Furniture

Minimum size of cuttings is 3" x 2'. The allowable number of cuttings is calculated by dividing the surface measure of the piece by 2 and dropping any fraction.

Surface Measure	Number of Cuttings
2'—3'	1
4'—5'	2
6'—7'	3
8'—9'	4
10'—11'	5
12'—13'	6
14' and over	7

This grade requires sound cuttings of 50% or better on the face. Pieces producing 66-2/3% or better on the sound face cuttings are allowed one additional cutting.

8.2 MERCHANTABLE — All Northeastern Softwood Species and Aspen (Merch. — Abbreviation)
4/4 - 8/4 - 6/16 in length.

Lumber of this grade is widely used for a large range of building purposes where appearance and strength are both important. With characteristics limited to assure a high degree of serviceability, this grade is often used for shelving, paneling and siding and is especially suited for fences, boxes, crating, sheathing and many industrial uses.

Characteristics and Limiting Provisions are:

Checks — Medium seasoning checks. Roller checks (see Shake).

Knots — Knots are limited as follows:

Face Width	Red Knots Sound & Tight	Unsound Knot Loose Knot Knot Hole
2"	1-3/16"	3/8"
3"	1-1/2"	5/8"
4"	2-1/2"	3/4"
6"	3"	1-1/4"
8"	3-1/2"	1-1/2"
10"	4"	1-3/4"
12"	4-1/2"	2-1/4"
14" and wider	5"	2-1/2"

The knot sizes listed above will generally be the maximum size found in this grade. However, there may be pieces of exceptional quality otherwise, which may contain slightly larger knots than those shown.

Black knots may be 2/3 size of allowable red knots, two maximum in each 12' length or equivalent smaller tight black knots.

Fixed knots may be equal to knot hole in size and are limited to two per 12' of length when not in serious combinations with other characteristics.

Only one maximum size knot hole is permitted in any one piece, but two equivalent smaller knot holes may be permitted if well spaced and the piece is otherwise of high quality.

Pin Holes — 30 per square foot or four small holes in a 1" x 8" x 12'.

Pitch — Heavy pitch over 1/2 the area or two small streaks of massed pitch.

Pockets — Medium, well scattered.

Shake — Light to medium shake, scattered full length in otherwise 2 Common type or one 3' light roller check on face, light to medium roller check 2/3 length on back.

Skip — One medium skip on face, hit and miss skips on back for 2/3 the length. One edge may have 1/8" skip for 1/2 the length or 1/16" skip full length.

Split — 1/6 the length.

Stain — Medium to heavy stained wood over the entire face.

Torn Grain — Medium.

Unsound Wood — Similar to firm white speck, limited to 1/8 the area.

Wane — On back, 2/3 the thickness, 1/4 the width, 1/2 the length or equivalent in an occasional piece.

Warp —

Crook — As shown in para. 752.0.

Cup — Medium.

Twist — 7/4 and thinner, light.

8/4 and thicker, 1/2 of light.

See para. 752.0.

8.3 CUT AND SHOP RULES

8.3.1 No. 1 CUTS — ALL SOFTWOOD SPECIES AND ASPEN

All thicknesses.

Widths — 6" and wider.

Lengths — 6' to 16'.

A No. 1 Cut (Shop) will produce 66-2/3% or better CLEAR on the poorer face except that medium stain is permitted. A cutting must be at least 4" in width and 1 sq. foot in area.

The maximum number of cuttings permitted is:

2 cuttings in pieces up to 7 surface feet.

3 cuttings in pieces of 7 to 12 surface feet.

4 cuttings in pieces of 12 or more surface feet.

8.3.2 No. 2 CUTS — ALL NORTHEASTERN SOFTWOOD SPECIES AND ASPEN

All thicknesses.

Widths — 3" and wider.

Lengths — 4' to 16'.

A No. 2 Cut will produce 40% or better CLEAR on the poorer face except that heavy stain is permitted. A cutting must be at least 3" in width and 1 sq. foot in area. One additional cutting is permitted.

8.3.3 KNOTTY — ALL NORTHEASTERN SOFTWOOD SPECIES AND ASPEN

This material is selected from the common grades which contain only red knots well distributed over the length of the pieces. The knot types may vary from different size round knots to all kinds, sizes and shapes of branch or spike knots. Other than red knots, this is a C Select piece.

Characteristics and Limiting Provisions are:

Knots — Red.

Shakes/Checks — Barely perceptible.

Stain — Light (blue or coffee), not to exceed 1/3 the face.

8.3.4 STAINED SELECTS — ALL NORTHEASTERN SOFTWOOD SPECIES AND ASPEN

This grade takes the limiting provisions of the D Select & Btr. Select, with the exception that any degree of blue and coffee stain is permitted.

8.3.5 SHORT SELECT — ALL NORTHEASTERN SOFTWOOD SPECIES AND ASPEN (S. SEL. — Abbrev.)

All thicknesses.

Widths — 3" and wider.

Length — 8' and shorter.

Any board which meets the requirements of D Select other than length. No cutting defect allowed.

8.3.6 SHORT — ALL NORTHEASTERN SOFTWOOD SPECIES AND ASPEN

All thicknesses.

Widths — 3" and wider.

Lengths — 8' and shorter.

Any board which meets the requirements of Eastern White Pine, paragraph 6.2.3, "Standard" or "Other Northeastern Species," paragraph 7.2.3, 3 Common, other than length.

8.4 ALTERNATE SHOP GRADES FOR EASTERN WHITE PINE AND RED PINE (WWPA 94.00)

Shop lumber is graded with reference to its use for sash and doors, or on the basis of characteristics affecting its use for general cut-up purposes, or on the basis of size of cutting. The grade of shop lumber is determined by the percentage of the area of each piece available in cuttings of specified or of given minimum sizes and qualities. Slope of grain is limited to 1 in 4 in all Shop grades.

Massed pitch, shake, unsound wood andwane may render a portion of a piece unusable as millwork. If these characteristics create a total loss of 5% or more of the area of the piece, the excess unusable portion shall be scaled off to the nearest square foot, and the scale-off shall be marked on the piece. Pieces containing less than 5% waste shall not be scaled off to raise the grade. Pieces requiring more than 50% scale-off are not permitted.

In determining the percentage of door cuttings in 5/4 and thicker Shop lumber, consideration must be given to the fact that usually pieces are to be ripped full length before cross cutting in such a manner as will yield the highest grade and largest percentage of door cuttings, subject to the following exceptions:

- (1) In such cases where pieces will yield a higher value by first being cross-cut for rails, and some of the stock so obtained contains stiles or muntins or top rails which can be obtained by ripping this cross-cut stock, the door cuttings so obtained shall be figured in when determining percentages.
- (2) Pieces in which stiles only are computed for the required percentage may be cross-cut first.

In 4/4 Shop, each cutting is figured without regard to whether the lumber will be ripped before cross-cutting.

STANDARD SHOP THICKNESSES	
Nominal Thickness	Surfaced Thickness S2S
4/4	3/4"
5/4	1-5/32"
6/4	1-13/32"
7/4	1-19/32"
8/4	1-13/16"
9/4	2-3/32"
10/4	2-3/8"
11/4	2-9/16"
12/4	2-3/4"
16/4	3-3/4"

Surfaced Shop lumber may be up to 1/64" full in thickness and still be considered on size. No minus tolerance in thickness is allowed.

5/4 and THICKER SHOP

8.4.1 FACTORY SELECT (No. 3 CLEAR) (WWPA 94.10)

Each piece of Factory Select contains 70% or more of No. 1 Door Cuttings, except that pieces containing one No. 1 stile, or two or more No. 1 Door Cuttings, will admit one No. 2 stile. Not over two muntins are included in any piece. No piece contains muntins only.

8.4.2 No. 1 SHOP (WWPA 94.11)

Each piece of No.1 Shop contains from 50% to 70% of No. 1 Door Cuttings, except those pieces containing one or more No. 1 Door cuttings will admit one No. 2 stile. Not over two muntins are included in any piece.

8.4.3 No. 2 SHOP (WWPA 94.12)

Each piece of No. 2 Shop contains one of the following percentages of Door Cuttings: 25% No. 1

cuttings; 33 1/3% mixed No. 1 and No. 2 cuttings; 40% No. 2 cuttings.

8.4.4 No. 3 SHOP (WWPA 94.13)

The grade of No. 3 Shop 5/4 and thicker is Factory lumber type admitting all pieces below the grade of No. 2 Shop that contain not less than 30% of the area of any combination of the following cuttings: No. 1 and No. 2 door cuttings, sash cuttings, moulding ribs, jamb and sill cuttings. Sash cuttings are of No. 1 quality. Moulding ribs are 2" and wider and 10' and longer. Jambs and sills are 5" and wider and 3' and longer and of No. 1 cutting quality on one face except that barely perceptible light brown stain is admitted.

The backs of jamb and sill cuttings may contain pin knots, seasoning checks, medium pitch pockets, light stain, medium pitch, skips in dressing and other characteristics of equivalent nature. No consideration is given to edge or end characteristics that will be removed in milling.

Not more than 5% of stock narrower than 5" is admissible in any shipment of No. 3 Shop.

4/4 SHOP

8.4.5 FACTORY SELECT (No. 3 CLEAR) (WWPA 94.20)

The grade of 4/4 Factory Select is determined by the percentage in each piece of cuttings suitable for general millwork in the sizes and qualities hereinafter specified.

Cuttings are 9-1/4" wide or wider and 18" long or longer; or 5" wide or wider and 3' long or longer.

Cuttings 9-1/4" wide or wider and less than 3' in length are free from characteristics on both sides.

Cuttings 5" wide or wider and 3' long or longer will grade C Select or better.

Each piece of 4/4 Factory Select contains 70% or more of any one cutting or combinations of cuttings described in the foregoing rules.

8.4.6 No. 1 SHOP (WWPA 94.21)

The grade of 4/4 No. 1 Shop is determined by the percentage in each piece of cuttings suitable for general millwork in the sizes and qualities hereinafter specified.

Cuttings are 9-1/4" wide or wider and 18" long or longer; or 4" wide or wider and 3' long or longer.

Cuttings 9-1/4" wide or wider and less than 3' in length are free from characteristics on both sides.

Cuttings 4" wide or wider and 3' long or longer will grade C Select or better.

The grade of 4/4 No. 1 Shop may be 4" and wider. Each piece contains from 50% to 70% of any one cutting or combination of cuttings of the quality described in the foregoing rules.

8.4.7 No. 2 SHOP (WWPA 94.22)

The grade of 4/4 No. 2 Shop consists of Shop type pieces which do not have the required percentage of cuttings necessary for 4/4 No. 1 Shop. This grade contains not less than 33-1/3% of cuttings of the size and quality permissible in 4/4 No. 1 Shop.

8.5 CUT SASH AND DOOR STOCK (WWPA 95.00)

All sash and door cuttings are graded from the poorer side of the piece. Cut Sash and Door Stock shall be graded as completely useable. However, on inspections, para. 5.6 of the grading rules applies.

Less consideration is given to edge or end characteristics that will surface off in milling than to defects elsewhere in the piece.

A deviation of bow or crook is permissible as shown for the following basic lengths:

Length	Bow or Crook
28" to 48"	1/32"
60"	1/16"
70"	3/32"
80" and longer	1/8"

Lengths falling between these basic lengths may have a proportionate amount of bow and crook on the same curvature.

Surfaced stock may be up to 1/64" full in thickness, but no minus tolerance is allowed. Width variation may be 1/8" over or 1/32" under the specified width.

Sash cuttings are 2-1/2" and over in width by 28" and over in length.

SASH CUTTINGS (WWPA 95.10)

8.5.1 No. 1 SASH CUTTINGS (WWPA 95.11) are free from characteristics on both sides, except that light brown stain or one barely perceptible bark or pitch blemish is admissible.

8.5.2 No. 2 SASH CUTTINGS (WWPA 95.12) proportional to their size, will admit the same characteristics permitted in No. 2 cuttings of door stock.

DOOR CUTTINGS (WWPA 95.20)

8.5.3 No. 1 CUTTINGS (WWPA 95.21) are free from characteristics on both sides, except that light brown stain or one barely perceptible bark or pitch blemish is admissible.

8.5.4 No. 2 CUTTINGS (WWPA 95.22) will admit any one of the following characteristics:

Checks — One or more small seasoning checks, the combined length not exceeding 8".

Knot — A small knot of sound character not exceeding 5/8" in diameter.

Pitch or Pitch Streaks — Light pitch or pitch streaks that do not form a pronounced defect.

Pocket — One bark pocket 1/8" x 1" in size or several when proportionately smaller or less pronounced. One very small pitch pocket, showing on one side only.

Skip — Very light skip or torn grain.

Stain — Light blue stain and/or medium brown

stain.

Torn Grain — See Skip.

8.5.5 CUTTING SIZES (WWPA 95.30)

Stiles are 5" and 6" wide by from 6'8" to 7'6" long. They may be either No. 1 or No. 2 in quality.

Bottom rails are 9" and 10" wide by from 2'4" to 3' long. They may be either No. 1 or No. 2 quality.

Muntins are 5" and 6" wide by from 3'6" to 4' long. They may be either No. 1 or No. 2 in quality.

Top rails are 5" and 6" wide by from 2'4" to 3' long. They must be of No. 1 quality, but are considered as No. 2 cuttings.

In computing the area of door cuttings in Factory lumber 5/4 inches and thicker, the following sizes shall be used:

STILES		BOTTOM RAILS	
5"x6'8" - 2.78	} 3	9"x2'4" - 1.75	} 1-3/4
5"x6'10" - 2.85		9"x2'6" - 1.875	
5"x7'0" - 2.92		9"x2'8" - 2.00	} 2
5"x7'2" - 2.99		9"x2'10" - 2.125	
5"x7'4" - 3.06		9"x3'0" - 2.25	} 2-1/4
5"x7'6" - 3.13		10"x2'4" - 1.94	
6"x6'8" - 3.33		10"x2'6" - 2.08	} 2
6"x6'10" - 3.42		10"x2'8" - 2.22	
6"x7'0" - 3.50		10"x2'10" - 2.36	} 2-1/4
6"x7'2" - 3.58		10"x3'0" - 2.50	
6"x7'4" - 3.67	} 3-3/4	TOP RAILS	
6"x7'6" - 3.75		5"x2'4" - 0.97	} 1
MUNTINS		5"x2'6" - 1.04	
5"x3'6" - 1.46	} 1-1/2	5"x2'8" - 1.11	
5"x3'8" - 1.53		5"x2'10" - 1.18	} 1-1/4
5"x3'10" - 1.60		5"x3'0" - 1.25	
5"x4'0" - 1.67	6"x2'4" - 1.17		
6"x3'6" - 1.75	} 1-3/4	6"x2'6" - 1.25	
6"x3'8" - 1.83		6"x2'8" - 1.33	
6"x3'10" - 1.92		6"x2'10" - 1.42	} 1-1/2
6"x4'0" - 2.00	6"x3'0" - 1.50		

8.6 MOULDING STOCK (WWPA 92.00)

All Thicknesses and Widths, All Species

Moulding Stock is stock of a type suitable for ripping into strips 1" and wider, 10' and longer.

At least 2/3 of the area contains such rips of the grade permissible in standard Mouldings. In 4/4 and 8/4 and thicker Moulding Stock the grade of each rip is determined from the best face. In 5/4, 6/4 and 7/4 Moulding Stock the grade of each rip is determined from the poorest face. Slope of grain is limited to 1 in 4 in 4/4 and 8/4 and thicker stock and 1 in 6 in 5/4, 6/4 and 7/4 stock. Crook, regardless of the width of a piece, is limited to 1" in 10' and shorter pieces and 1 1/2" in 11' and longer pieces.

Up to 10% of the footage of any item may be 6' to 9' in length, provided each piece contains 2/3 or more of full-length moulding rips.

Wane, stain, skips in dressing or other characteristics that will surface off in making mouldings of standard size are admissible in computing the percentage of rips.

In Rough 4/4 Moulding Stock, up to 10% of the material may be less than 7/8" thick, provided 5/8" mouldings can be manufactured from the thinner stock.

Rough 5/4, 6/4 and 7/4 Moulding Stock shall be the same thickness as other grades of Selects. Rough 8/4 Moulding Stock shall be the same thickness as other grades of Selects, except that 5% of the material may contain a minimum thickness of 1 7/8". Moulding Stock thinner than these minimums shall be included and tallied as of the next lower thickness.

Massed pitch, shake, unsound wood and wane may render a portion of a piece unusable as Moulding Stock. If these characteristics create a total loss of 10% or more of the area of the piece, the excess unusable portion shall be scaled off to the nearest square foot, and the scale-off shall be marked on the piece. Pieces containing less than 10% waste shall not be scaled off to raise the grade. Pieces requiring more than 50% scale-off are not permitted.

8.6.1 MOULDINGS (WWPA 92.10)

Standard Mouldings permit such characteristics as are acceptable in both interior and exterior trim. These may be light seasoning checks, very small pockets, light torn grain, pin-size and small knots, medium stain or a small amount of medium pitch. A serious combination of these is not admissible in any one piece. The number and extent of characteristics permitted varies as the area of the piece increases or diminishes.

On the basis of a 1"x2"x12', this grade will admit the following characteristics or the equivalent:

Checks — One small seasoning check and a light snipe at one end, or

Knots — Two pin knots or one small knot (knots may be increased in number on an equivalent basis as the size of the moulding increases, but may not be increased in size), or

Pitch — See Torn Grain.

Pocket — One pocket 1/8"x2" or equivalent, or

Skip — See Torn Grain.

Stain — Medium stain covering 1/3 the face in an occasional piece, or a greater area of lighter stain when not in combination with other characteristics, or

Torn Grain — A small spot of torn grain and 1' of medium pitch, light skip in dressing on back.

Characteristics that will not show when the piece is laid are not given the same consideration as characteristics elsewhere.

In random length Mouldings, pieces requiring one cut not to exceed 4" of waste to eliminate a characteristic too serious to go in the grade are allowed in otherwise high line pieces. The cut must be more than 36" from each end of the piece. Not more than 10% of the cutting type is admissible in any one item.

Lengths shall be 3' to 20' in multiples of 1'. When random length shipments are ordered, no more than 15% under 8' in any one item and bundled separately

shall be shipped. When shipments are ordered to be 6' and longer, no more than 10% under 8' is allowable in any one item.

- (1) Casing and Stop patterns 7' in length are considered long lengths when figuring percentage of shorts.
- (2) Cut to length window and door trim are graded as completely usable. However, on reinspections Section 5.60 of the grading rules applies.

The above paragraphs also apply to all finger-jointed mouldings with the additional provision that medium stain is allowed. Patching and filling are allowed in fingerjoint mouldings, providing a good paintable surface results.

9.0 FINGER JOINT SHOP COMMON

(99.00 WWPA)

All Thicknesses and Widths All Species

This grade is intended to provide cuttings 2-1/2" wide or wider by 9" long or longer used for stock to be finger-jointed for moulding and millwork items. It is considered Factory lumber for cutting value and no comparison with any Yard grade is intended.

The grade is determined by the percentage of the area of each piece available in the specified cuttings. Each piece of finger-jointing stock must contain 50% or more of cuttings which are of the quality described below. Consideration must be given to the fact that pieces are to be ripped full length before the ripped stock may be cross cut. Severe grain distortion such as may be caused by cutting too close to a large knot is not permitted in cuttings. Severe compression wood is not permitted in cuttings.

Characteristics and limiting provisions in cuttings are:

Birds Eye — See Pockets.

Checks — Cuttings must be free from seasoning checks.

Pitch or Pitch Streaks — Light pitch or pitch streaks.
Pockets — Barely perceptible bark pockets or very light birds eye.

Skip — Light skip, light raised grain or light torn grain.

Slope of Grain — Not to exceed 1 in 6.

Stain — Light to medium.

Torn or Raised Grain — See Skip.

A serious combination of the above characteristics not permitted in any cutting.

Massed pitch, shake, unsound wood and wane may render a portion of a piece unusable as millwork. If these characteristics create a total loss of 5% or more of the area of the piece, the excess unusable portion shall be scaled off to the nearest square foot, and the scale-off shall be marked on the piece. Pieces containing less than 5% waste shall not be scaled off to raise the grade. Pieces requiring more than 50% scale-off are not permitted.

Unless otherwise agreed between the buyer and seller of this grade, moisture content provisions shall be those provided for dry Shop lumber.

