SECTION 096400 - WOOD FLOORING

TIPS:

To view non-printing Editor's Notes that provide guidance for editing, click on Masterworks/Single-File Formatting/Toggle/Editor's Notes.

To read detailed research, technical information about products and materials, and coordination checklists, click on Masterworks/Supporting Documents.

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data and Samples.

PART 2 - PRODUCTS

2.1 WOOD FLOORING, GENERAL

A. Hardwood Flooring: Comply with NOFMA grading rules for species, grade, and cut.
   1. Certification: Provide flooring that carries NOFMA grade stamp on each bundle or piece.

B. Maple Flooring: Comply with MFMA grading rules for species, grade, and cut.
   1. Certification: Provide flooring that carries MFMA mark on each bundle or piece.

C. Softwood Flooring: Comply with WCLIB grading rules for species, grade, and cut.

D. Certified Wood: Wood-based materials [produced from tropical forests] shall be certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and the FSC STD-40-004, "FSC Standard for Chain of Custody Certification."

2.2 FIELD-FINISHED WOOD FLOORING

A. Solid-Wood Strip and Plank Flooring: Kiln dried and as follows:
   1. Manufacturers:[ One of the following:]
   2. Basis-of-Design Product: [Product indicated on Drawings] <Insert manufacturer’s name; product name or designation> or a comparable product of one of the following:
      a. Aacer Flooring, LLC.
      b. Carlisle Wide Plank Floors.
      c. EcoTimber.
      d. International Hardwood Flooring, Inc.
      e. Kentucky Wood Floors.
      f. Miller and Company, Inc.
3. Species and Grade: [Select red oak] [No. 1 Common red oak] [No. 2 Common red oak] [First grade hard maple] [Second & Better grade hard maple] [C & BTR - Flooring Douglas fir] [D - Flooring Douglas fir] <Insert species and grade>.
4. Cut: [Plain sawn] [Quarter/rift sawn] [Edge grain] [Vertical grain] <Insert cut>.
5. Thickness: [3/4 inch (19 mm)] [25/32 inch (20 mm)] <Insert thickness>.
6. Face Width: [2-1/4 inches (57 mm)] [3-1/8 inches (79 mm)] [5-1/8 inches (130 mm)] <Insert face width>.
7. Lengths: [Random-length strips complying with applicable grading rules] [Lengths required to form pattern indicated] <Insert requirements>.
8. Simulated Wood Pegs: Contrasting wood pegs at ends of plank flooring pieces.

B. Solid-Wood Parquet Flooring: As follows:
1. Manufacturers: [One of the following:]
2. Basis-of-Design Product: [Product indicated on Drawings] <Insert manufacturer's name; product name or designation> or a comparable product of one of the following:
   a. Carlisle Wide Plank Floors.
   b. Kentucky Wood Floors.
   c. <Insert manufacturer's name>.
3. Species: [Red oak] [White oak] [Ash] [Beech] [Maple] [Black cherry] <Insert species>.
4. Grade: <Insert grade>.
5. Thickness: [5/16 inch (8 mm)] [11/16 inch (17 mm)] [1/4 inch (6 mm)] <Insert thickness>.
7. Size: <Insert size>.

C. Engineered-Wood [Strip] [and] [Plank] Flooring: HPVA EF[,], except bonding agent contains no urea formaldehyde.
1. Manufacturers: [One of the following:]
2. Basis-of-Design Product: [Product indicated on Drawings] <Insert manufacturer's name; product name or designation> or a comparable product of one of the following:
   a. Armstrong World Industries, Inc.
   b. Kentucky Wood Floors.
   c. Mannington Mills, Inc.
   d. Oregon Lumber Company.
   e. <Insert manufacturer's name>.
3. Species: [Red oak] [White oak] [Ash] [Beech] [Maple] [Black cherry] <Insert species>.
4. Grade: <Insert grade>.
5. Thickness: [1/2 inch (12.7 mm)] [3/8 inch (9.5 mm)] <Insert thickness>.
7. Width: [2-1/4 inches (57 mm)] [3 inches (76 mm)] <Insert width>.
8. Length: Manufacturer's standard.
9. Edges: [Square] [Beveled (eased)].
D. Urethane Finish System: Complete [solvent-based, oil-modified] [water-based] system of compatible components that is recommended by finish manufacturer for application indicated.

1. VOC Content:
   a. Finish Coats and Floor Sealers: Not more than 350 g/L.
   b. Stains: Not more than 250 g/L.

2. Low-Emitting Materials: Finish system materials shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

   a. Color: [Match sample] [As selected].

4. Floor Sealer: Pliable, penetrating type.

5. Finish Coats: Formulated for multicoat application on wood flooring.

E. Wood Filler: Compatible with finish system and recommended by filler and finish manufacturers. If required to match approved samples, provide pigmented filling.

2.3 FACTORY-FINISHED WOOD FLOORING

A. Solid-Wood Strip and Plank Flooring: Kiln dried and as follows:

1. Manufacturers: [One of the following:]
2. Basis-of-Design Product: [Product indicated on Drawings] [Insert manufacturer's name; product name or designation] or a comparable product of one of the following:
   a. Aacer Flooring, LLC.
   b. Anderson Hardwood Floors.
   c. Armstrong World Industries.
   d. Bellawood.
   e. Carlisle Wide Plank Floors.
   f. Kentucky Wood Floors.
   g. WD Flooring, LLC.
   h. [Insert manufacturer's name].

3. Species: [Red oak] [White oak] [Ash] [Birch] [Maple] [Black cherry] [Hickory] [Walnut] [Insert species].

4. Grade: [Insert grade].

5. Cut: [Plain sawn] [Quarter/rift sawn] [Edge grain] [Vertical grain] [Insert description].

6. Thickness: [3/4 inch (19 mm)] [25/32 inch (20 mm)] [Insert thickness].

7. Face Width: [2-1/4 inches (57 mm)] [3-1/8 inches (79 mm)] [5-1/8 inches (130 mm)] [Insert face width].

8. Lengths: [Random-length strips complying with applicable grading rules] [Lengths required to form pattern indicated] [Insert requirements].

9. Edge Style: [Square] [Beveled (eased)].

10. Finish: UV urethane system.

B. Solid-Wood Parquet Flooring: As follows:

1. Manufacturers: [One of the following:]
2. **Basis-of-Design Product**: [Product indicated on Drawings] <Insert manufacturer's name; product name or designation> or a comparable product of one of the following:
   a. Armstrong World Industries, Inc.
   b. Carlisle Wide Plank Floors.
   c. Kentucky Wood Floors.
   d. <Insert manufacturer's name>.

4. Grade: <Insert grade>.
5. Thickness: [5/16 inch (8 mm)] [11/16 inch (17 mm)] [1/4 inch (6 mm)] <Insert thickness>.
7. Pattern: <Insert pattern>.
8. Size: <Insert size>.
9. Finish: [UV urethane] [Acrylic impregnated].

C. Engineered-Wood [Strip] [and] [Plank] Flooring: HPVA EF[,][, except bonding agent contains no urea formaldehyde.]
   1. Manufacturers:[ One of the following:]
   2. **Basis-of-Design Product**: [Product indicated on Drawings] <Insert manufacturer's name; product name or designation> or a comparable product of one of the following:
      a. Anderson Hardwood Floors.
      b. Armstrong World Industries, Inc.
      c. Boen Hardwood Flooring Inc.
      d. EcoTimber.
      e. GammaPar.
      f. Mannington Mills, Inc.
      g. Oregon Lumber Company.
      h. Tarkett.
      i. Wood Flooring International.
      j. WD Flooring Co-C.
      k. <Insert manufacturer's name>.

3. Species: [Red oak] [White oak] [Ash] [Beech] [Maple] [Black cherry] [Hickory] [Walnut] [Insert species>.
   Grade: <Insert grade>.
   7. Thickness: [1/2 inch (12.7 mm)] [3/8 inch (9.5 mm)] <Insert thickness>.
   9. Width: [2-1/4 inches (57 mm)] [3 inches (76 mm)] <Insert width>.
10. Length: Manufacturer's standard.
11. Edges: [Square] [Beveled (eased)].
12. Finish: [UV urethane] [Acrylic impregnated].

D. Engineered-Wood Parquet Flooring: HPVA EF[,][, except bonding agent contains no urea formaldehyde.]
   1. Manufacturers:[ One of the following:]
   2. **Basis-of-Design Product**: [Product indicated on Drawings] <Insert manufacturer's name; product name or designation> or a comparable product of one of the following:
      a. Boen Hardwood Flooring Inc.
      b. Tarkett.
      c. <Insert manufacturer's name>.
3. Species: [Red oak] [Ash] [Beech] [Maple] [Walnut] <Insert species>.
4. Grade: <Insert grade>.
5. Thickness: [3/8 inch (9.5 mm)] [1/2 inch (12.7 mm)] <Insert thickness>.
7. Edges: <Insert edge style>.

2.4 ACCESSORY MATERIALS

A. Vapor Retarder: ASTM D 4397, polyethylene sheet not less than 6.0 mils (0.15 mm) thick.
B. Asphalt-Saturated Felt: ASTM D 4869, Type II.
C. Wood Flooring Adhesive: Mastic recommended by flooring and adhesive manufacturers for application indicated.
   1. Low-Emitting Materials: Adhesives shall have a VOC content of 100 g/L or less.
   2. Low-Emitting Materials: Adhesives shall comply with Green Seal's GS-36 and with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
D. Fasteners: As recommended by manufacturer, but not less than that recommended in NWFA's "Installation Guidelines: Wood Flooring."

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with flooring manufacturer's written installation instructions, but not less than applicable recommendations in NWFA's "Installation Guidelines: Wood Flooring."
B. Provide expansion space at walls and other obstructions and terminations of flooring of not less than [3/4 inch (19 mm)] <Insert dimension>.
C. Vapor Retarder: Comply with NOFMA's "Installing Hardwood Flooring" for vapor retarder installation and the following:
   1. Wood Flooring Nailed to Wood Subfloor: Install flooring over a layer of asphalt-saturated felt.
   2. Wood Flooring Nailed to Sleepers over Concrete: Install flooring over a layer of polyethylene sheet with edges overlapped over sleepers and turned up behind baseboards.
   3. Wood Flooring Installed Directly on Concrete: Install a layer of polyethylene sheet according to flooring manufacturer's written instructions.
D. Solid-Wood, [Strip] [and] [Plank] Flooring: Blind nail or staple flooring to substrate.
   1. Plank Flooring: For flooring of face width more than 3 inches (75 mm), [install countersunk screws at each end of each piece in addition to blind nailing. Cover screw heads with wood plugs glued flush with flooring] [install not less than two countersunk nails at each end of
each piece, spaced not more than 16 inches (406 mm) along length of each piece, in addition to blind nailing. Fill holes with matching wood filler).

E. Solid-Wood Parquet Flooring: Set in adhesive.

F. Engineered-Wood Flooring: [Set in adhesive] [Nail or staple] [Install floating floor].

3.2 SANDING AND FINISHING

A. Machine-sand flooring to remove offsets, ridges, cups, and sanding-machine marks that would be noticeable after finishing. Vacuum and tack with a clean cloth immediately before applying finish.

B. Fill open-grained hardwood.

C. Apply floor-finish materials in number of coats recommended by finish manufacturer for application indicated, but not less than one coat of floor sealer and [three] <Insert number> finish coats.

1. Apply stains to achieve an even color distribution matching approved Samples.

END OF SECTION 096400