SECTION 09 64 28

PREFINISHED WOOD STRIP FLOORING

***** Lumber Liquidators offers both solid and engineered wood strip flooring in numerous species, thicknesses, and widths. Wood flooring products can be factory finished to a high standard, reducing field labor costs and ensuring a consistent, long-lasting finish.

This guide specification section can be used to specify the following wood strip flooring products offered by Lumber Liquidators. The specifier will need to select appropriate products and delete non-applicable options. This guide specification can also be modified to specify the other numerous solid and engineered wood flooring products listed in Lumber Liquidators product literature.

HUSRO3SV - Bellawood Select Grade Red Oak, 3-1/4 inches wide.
HUSWO2NV - Bellawood Natural Grade White Oak, 2-1/4 inches wide.
HUSBC3SV - Bellawood Select Grade Brazilian Cherry, 3-1/4 inches wide.
HUSBW3SV - Bellawood Select Grade Brazilian Walnut, 3-1/4 inches wide.
HUSMA3SV - Bellawood Select Grade Northern Hard Maple, 3-1/4 inches wide.
HUSBT3SV - Bellawood Select Grade Brazilian Teak, 3-1/4 inches wide.
PRBAMHN - Morning Star Horizontal Natural Bamboo Flooring, 3-3/4 inches wide.
PRBAMVN - Morning Star Vertical Natural Bamboo Flooring, 3-3/4 inches wide.
PRBAMHC - Morning Star Horizontal Carbonized Bamboo Flooring, 3-3/4 inches wide.
PRBAMVC - Morning Star Vertical Carbonized Bamboo Flooring, 3-3/4 inches wide.
PRBAMSTN - Strand Natural Bamboo Flooring, 3-3/4 inches wide.

The specification section is organized by placing information in three standard parts:

PART 1 - GENERAL Describes administrative and procedural requirements.

PART 2 - PRODUCTS Describes materials, products, and accessories to be incorporated into the construction project.

PART 3 - EXECUTION Describes how the products will be installed at the construction site.

Throughout this product guide specification, references are made to other specification sections that might be contained in the project manual. These
references are presented as examples and coordination reminders. For each project, these references will need to be revised to reflect actual sections being used.

Within the specification text, Imperial dimensions are presented first in brackets followed by System International Metric (SI) equivalents also in brackets. Depending on project requirements, either the Imperial or the SI metric equivalents will need to be deleted.

The specifier will need to edit this product specification for a specific project to reflect the options and applications being used. The guide section has been written so that most editing can be accomplished by deleting unnecessary requirements and options. Depending on project requirements, some additional information will need to be added by the specifier. Options are indicated by [ ]. Notes to assist the specifier in selecting options and editing the specification guide are printed in bold and indicated with *****. For final editing, all brackets and notes will need to be deleted from the guide.

****************************************************************
PART 1 - GENERAL

1.1 SUMMARY

A. Section includes: Prefinished [solid hardwood] [bamboo] strip flooring.

B. Related sections:

***** List other specification sections dealing with work directly related to this section such as the following. *****

1. Section 03 30 00 - Cast-in-Place Concrete: Concrete slab to receive wood flooring.

2. Section 06 10 00 - Rough Carpentry: Wood subfloor to receive wood flooring.

3. Section 06 20 00 - Finish Carpentry: Wood base for wood floor.

1.2 REFERENCES

**** List by number and full title reference standards referred to in remainder of specification section. *****

A. NWFA - National Wood Flooring Association Grading Standards.
1.3 SUBMITTALS

A. Provide in accordance with Section 01 33 00 - Submittal Procedures:

1. Documentation showing compliance with manufacturer and installer qualifications specified in Paragraph 1.4.

2. Product data for [solid hardwood] [bamboo] flooring and accessories.

3. Shop drawings indicating floor joint pattern, attachment and termination details, and provisions for expansion and contraction.

4. Three [6 inch] [152 mm] minimum length samples of wood flooring illustrating grain, finish, color range, and sheen.

5. Manufacturer's installation instructions.

6. Manufacturer's recommended maintenance procedures and maintenance materials.

1.4 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacture of prefinished hardwood flooring with 5 years successful experience.
B. Installer: Company specializing in installing hardwood flooring with minimum 5 years successful experience.

**** Lumber Liquidators provides wood flooring graded in accordance with NWFA grading standards. Flooring is provided in the following grades. Not all types are available in all three grades. Refer to Lumber Liquidators product literature for grading options.

Select/Clear Grade: Uniform color, no knots, and longest average lengths of the three available grades.

Natural/No. 1 Grade: Variable color, some small pin knots, and some mineral coloring.

Rustic/No. 2 Grade: Varying colors, solid knots, and mineral streaks.

C. Hardwood shall meet grading requirements of NOFMA and NWFA. Provide species and grade stamp on underside of each piece of flooring.

D. Hardwood shall be kiln dried with 6 to 9 percent maximum moisture content.

1.5 ENVIRONMENTAL REQUIREMENTS

A. Do not install wood flooring until wet construction work and majority of overhead work is completed.

B. Provide permanent heat, light, and ventilation prior to installation.

C. Maintain room temperature at [65 degrees F] [18 degrees C] and 35 to 55 percent relative humidity for 3 to 5 days prior to delivery of materials, during installation, and after installation.

PART 2 - PRODUCTS

2.1 ACCEPTABLE PROVIDERS

A. Wood flooring: Lumber Liquidators, 3000 John Deere Road, Toano, Virginia 23168; 800-476-0007 or 800-HARDWOOD; www.lumberliquidators.com.

B. Patching compound, vapor barrier, and adhesive:

**** Lumber Liquidators recommends products of the following manufacturers for installation of wood flooring systems. Consult with Lumber Liquidators for acceptability of products of other manufacturers.

C. Requests to use equivalent products of other Manufacturer’s shall be submitted in accordance with Section 01 25 13 - Product Substitution Procedures.
2.2 SOLID HARDWOOD STRIP FLOORING

***** Include and edit this Article if solid hardwood strip flooring is required. Lumber Liquidators provides prefinished, solid hardwood, strip flooring in four thickness – 5/16, 3/8, 1/2 and 3/4 inch (8, 10, 13 and 19 mm). Various widths, species, and grades are provided. Not all widths are available for all species due to manufacturing constraints. Refer to Lumber Liquidators product literature for available options. *****

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***** Use the following paragraph to specify Bellawood No. HUSRO3SV Northern Red Oak, Select Grade, 3-1/4 inch (83 mm) wide solid hardwood strip flooring. *****

A. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSRO3SV as offered by Lumber Liquidators.
   1. Species: Northern Red Oak.
   2. Grade: Select.

***** Two thicknesses are provided for Bellawood HUSRO3SV – 3/8 and 3/4 inches (10 and 19 mm). *****

   4. Width: [3-1/4 inches] [83 mm].
   5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.

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***** Use the following paragraph to specify Bellawood No. HUSWO2NV White Oak, Natural Grade, 2-1/4 inch (57 mm) wide solid hardwood strip flooring. *****

B. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSWO2NV as offered by Lumber Liquidators.
   1. Species: White Oak.
   2. Grade: Natural.
One thickness is provided for Bellawood HUSWO2NV - 3/4 inch (19 mm).

3. Thickness: [[3/4 inch] [19 mm]]

4. Width: [2-1/4 inches] [57 mm].

5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.


Use the following paragraph to specify Bellawood No. HUSBC3SV Brazilian Cherry, Select Grade, 3-1/4 inch (83 mm) wide solid hardwood strip flooring.

C. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSBC3SV as offered by Lumber Liquidators.

1. Species: Brazilian Cherry.

2. Grade: Select.

Three thicknesses are provided for Bellawood HUSBC3SV – 5/16, 3/8, and 3/4 inch (8 mm, 10 mm and 19 mm).

3. Thickness: [[5/16] [3/8] [3/4] inch] [[8 mm] [10 mm] [19 mm]].

4. Width: [3-1/4 inches] [83 mm].

5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.


Use the following paragraph to specify Bellawood No. HUSBW3SV Brazilian Walnut, Select Grade, 3-1/4 inch (83 mm) wide solid hardwood strip flooring.

D. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSBW3SV as offered by Lumber Liquidators.
1. Species: Brazilian Walnut.

2. Grade: Select.

***** Three thicknesses are provided for Bellawood HUSBW3SV – 5/16, 3/8, and 3/4 inch (8 mm, 10 mm and 19 mm). *****

3. Thickness: [5/16] [3/8] [3/4] inch [8 mm] [10 mm] [19 mm].

4. Width: [3-1/4 inches] [83 mm].

5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.


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***** Use the following paragraph to specify Bellawood No. HUSMA3SV Northern Hard Maple, Select Grade, 3-1/4 inches (83 mm) wide solid hardwood strip flooring. *****

E. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSMA3SV as offered by Lumber Liquidators.
2. Grade: Select.

***** Two thicknesses are provided for Bellawood HUSMA3SV - 3/8 and 3/4 inches (10 and 19 mm). *****

4. Width: [3-1/4 inches] [83 mm].
5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.

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***** Use the following paragraph to specify Bellawood No. HUSBT3SV Brazilian Teak, Select Grade, 3-1/4 inch (83 mm) wide solid hardwood strip flooring. *****

F. Type: Prefinished, solid hardwood strip flooring; Bellawood No. HUSBT3SV as offered by Lumber Liquidators.
1. Species: Brazilian Teak.
2. Grade: Select.

***** Two thicknesses are provided for Bellawood HUSBT3SV – 3/8 and 3/4 inches (10 and 19 mm). *****

4. Width: [3-1/4 inches] [83 mm].
5. Length: Random lengths with [72 inches] [1829 mm] maximum and [36 inches] [914 mm] average.
2.3 BAMBOO WOOD STRIP FLOORING

***** Include and edit this Article if bamboo wood strip flooring is required. Lumber Liquidators provides prefinished, bamboo wood strip flooring fabricated from old growth bamboo reeds that are at least 4 years old. Refer to Lumber Liquidators for available bamboo flooring options. *****

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***** Use the following paragraph to specify Morning Star No. PRBAMHN Horizontal Natural Bamboo Flooring. This flooring uses natural, unstained bamboo in a horizontal pattern. *****

A. Type: Prefinished bamboo wood strip flooring in a horizontal pattern; Morning Star No. PRBAMHN Horizontal Natural Bamboo Flooring as offered by Lumber Liquidators.

1. Species: Old growth natural unstained bamboo.
2. Pattern: Horizontal.
3. Thickness: [5/8 inch] [16 mm].
4. Width: [3-3/4 inches] [95 mm].
5. Length: [36 inches] [914 mm].

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***** Use the following paragraph to specify Morning Star No. PRBAMVN Vertical Natural Bamboo Flooring. This flooring uses natural, unstained bamboo in a vertical pattern. *****

B. Type: Prefinished bamboo wood strip flooring in a vertical pattern; Morning Star No. PRBAMVN Vertical Natural Bamboo Flooring as offered by Lumber Liquidators.

1. Species: Old growth natural unstained bamboo.
3. Thickness: [5/8 inch] [16 mm].
4. Width: [3-3/4 inches] [95 mm].

5. Length: [36 inches] [914 mm].


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***** Use the following paragraph to specify Morning Star No. PRBAMHC Horizontal Carbonized Bamboo Flooring. This flooring uses bamboo which has been steamed so that the sugar within is carmelized to change the color to a brown tint. The carmelized bamboo is arranged in a horizontal pattern. *****

C. Type: Prefinished, carbonized wood strip flooring in a horizontal pattern; Morning Star No. PRBAMHC Horizontal Carbonized Bamboo Flooring as offered by Lumber Liquidators.

1. Species: Old growth bamboo which has been steamed so that the sugar within is carmelized to change the color to a brown tint.

2. Pattern: Horizontal.

3. Thickness: [5/8 inch] [16 mm].

4. Width: [3-3/4 inches] [95 mm].

5. Length: [36 inches] [914 mm].


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***** Use the following paragraph to specify Morning Star No. PRBAMVC Vertical Carbonized Bamboo Flooring. This flooring uses bamboo which has been steamed so that the sugar within is carmelized to change the color to a brown tint. The carmelized bamboo is arranged in a vertical pattern. *****

D. Type: Prefinished, carbonized bamboo wood strip flooring in a vertical pattern; Morning Star No. PRBAMVC Vertical Carbonized Bamboo Flooring as offered by Lumber Liquidators.

1. Species: Old growth bamboo which has been steamed so that the sugar within is carmelized to change the color to a brown tint.


3. Thickness: [5/8 inch] [16 mm].

4. Width: [3-3/4 inches] [95 mm].

5. Length: [36 inches] [914 mm].

***** Use the following paragraph to specify Morning Star No. PRBAMSTN Strand Natural Bamboo Flooring. This flooring uses heated strips of natural, unstained bamboo woven together under pressure. *****

E. Type: Prefinished bamboo wood strip flooring formed by heating strips of bamboo and weaving them together under pressure; Morning Star No. PRBAMSTN Strand Natural Bamboo Flooring as offered by Lumber Liquidators.

1. Species: Old growth, natural unstained bamboo.
2. Thickness: [5/8 inch] [16 mm].
3. Width: [3-3/4 inches] [95 mm].
4. Length: [36 inches] [914 mm].
5. Edges and ends: Tongue and groove.

2.4 WOOD TRIM

***** Lumber Liquidators provides a variety of wood moldings and trim pieces to use in conjunction with the wood flooring systems. Most of these products can be provided either factory finished to match wood flooring or unfinished. Refer to Lumber Liquidators product literature for types, profiles, and dimensions of wood moldings and trim. *****

A. Provide wood moldings and trim pieces to use in conjunction with wood flooring as detailed on Drawings and reviewed shop drawings.

B. Types:

1. Quarter round.
2. Base shoe: Designed to transition between wood floor and vertical surface of cabinets and other woodwork.
3. Stair nosing: Designed to transition between stair tread and riser.
4. Stair treads.
5. Stair riser.
6. Reducer: Designed to provide smooth transition between different floor heights.
7. Threshold: Designed for doorway between different floor heights.

8. T-molding: Designed for joint between floors of same thickness.


C. Species: [_____] [match adjacent wood flooring].

D. Finish: [Factory] [Field] finish to match adjacent wood flooring.

2.5 FACTORY FINISHING

A. Factory machine sand wood strip flooring to smooth even finish with no evidence of sander marks. Use 3 sequential sanding operations.

B. Apply one seal coat followed by 7 finish coats of photoreactive urethane. Cure by ultra-violet light. Five finish coats shall be aluminum oxide based.

C. Total finish thickness; 3.2 mils.

2.6 ACCESSORIES

***** Edit this article to include materials required for specific wood flooring installation. Delete non-applicable materials. *****

A. Wood sleepers, plywood sheathing, blocking, and other framing accessories: As specified in Section 06 10 00 - Rough Carpentry: Do not use pressure-treated wood products.

B. Subfloor filler and patching compound: [Gray cement based type as recommended by flooring manufacturer.] [Tri-Patch as offered by Mapei Corporation.] [_____]

C. Wood floor adhesive: [100 percent urethane floor adhesive as recommended by flooring manufacturer.] [Ultrabond 990 as offered by Mapei Corporation.] [_____].

***** Type of vapor retarder used will depend on project conditions and construction of substrate. *****

***** The following type vapor barrier is applicable for raised wood flooring installed above a crawl space. *****

D. Sheet vapor retarder: Black polyethylene sheeting, 8 mils thick. Provide
reinforced, self-adhesive, [2 inch] [51 mm] minimum width tape for sealing seams.

***** The following type of vapor barrier is applicable for wood flooring installed with adhesive. *****

E. Trowel applied vapor retarder: [Planiseal WFM as offered by Mapei Corporation] [____].

***** The following type vapor barrier is applicable for nailed wood flooring. *****

F. Felt underlayment: Asphalt impregnated, weather resistant, water-vapor permeable building paper.
   1. Dry tensile strength: 20 PSI minimum in both directions.
   2. Minimum water vapor transmission: 35 grams per square meter per 24 hours.
***** Cork or compressed fiber underlayment can be installed beneath wood flooring for sound isolation. Include and edit the following paragraph if sound isolation underlayment is required. *****

G. Sound isolation underlayment: [3 mm] [6 mm] thick [cork underlayment] [compressed fiber underlayment; Insulayment as offered by Lumber Liquidators].

PART 3 - EXECUTION

***** Contact Lumber Liquidators for assistance in determining installation method. Wood flooring is typically installed over a wood subfloor with staples or nails. There are also several methods for installing wood flooring on a concrete slab using a plywood nailing base and a moisture barrier. These include the following:

Platform sleeper system: 2 by 4 wood sleepers are installed around the perimeter and in the field at 12 inches (305 mm) on center and covered with sheet vapor barrier and plywood sheathing.

Adhered plywood nailing base: Fluid applied vapor barrier is installed on concrete slab. Scored plywood sheets or 12 inch (305 mm) wide plywood planks are adhered to concrete slab. Asphalt felt ply and wood flooring are then installed with staples or nails.

Floating plywood nailing base: Sheet vapor barrier is installed over concrete slab and two layers of 5/8 inch (16 mm) thick plywood sheathing are screwed together over the slab and vapor barrier. Asphalt felt ply and wood flooring are then installed with staples or nails.

Mechanically fastened plywood nailing base: 3/4 inch (19 mm) exterior grade plywood panels are anchored to an above grade concrete slab with power-actuated fasteners. Asphalt felt ply and wood flooring are then installed with staples or nails.

Wood flooring can also be applied with adhesive over concrete substrates. Lumber Liquidators does not recommend this method for solid ¾” hardwood flooring nor do they recommend wood flooring be installed below-grade in basements. 3/8”, 5/16” and ½” solid hardwood floors can be applied over concrete. Only certain species of wood flooring are suitable for installation above radiant floor heating floor. Consult Lumber Liquidators before specifying adhesive installation of wood flooring or installation over radiant floor heating systems. *****

3.1 PREPARATION
A. Allow wood flooring materials to become acclimated to finished building heat and humidity before installing.

***** Include the following paragraph if wood flooring is installed over wood substrate. *****

B. Coordinate installation of wood flooring with construction of wood subfloor specified in Section 06 10 00 - Rough Carpentry. Ensure that framing members are rigid and subfloor is level, smooth, and securely attached with ends over firm bearing.
***** Include the following paragraph if wood flooring is installed over concrete substrate. *****

C. Coordinate installation of wood flooring with construction of concrete substrate specified in Section 03 30 00 - Cast-in-Place Concrete.

***** Include the following paragraph if concrete slab is recessed so that wood flooring is flush with adjacent floor finishes. *****

1. Coordinate required depth of recess with installation of concrete subfloor so that wood flooring is flush with adjacent floor finishes.

2. Prior to installation, inspect concrete substrate to determine existence of moisture, major cracking or settlement, deterioration of concrete, oil, grease, and other deficiencies which might adversely affect installation of wood flooring. Ensure:
   a. Concrete is completely cured, 90 days minimum.
   b. Moisture content of substrate is within 2 percent of wood flooring (for widths 3 ¼" and wider, and within 4 percent for 2 ¼" width boards) to be installed. Test concrete using CC test and verify moisture does not exceed 3 pounds per 1,000 square feet in 24 hours.
   c. That for slabs scheduled to receive nailing base or wood flooring installed adhesive:
      1) Concrete sealer has not been applied.
      2) Concrete slab has neutral alkalinity.
   d. Concrete surfaces are smooth, flat, and free from irregularities. Maximum acceptable variation in any direction shall be [3/16 inch in 10 feet] [5 mm in 3 m].

   3. Fill low spots, cracks, joints, holes, and other defects with floor filler. Apply, trowel, and float filler to leave smooth, flat, hard surface. Prohibit traffic until cured.

D. Report deficiencies to Architect and do not proceed with flooring installation until resolution.

E. Vacuum or broom clean floor surfaces immediately before installation.

3.2 INSTALLATION OF NAILING BASE
***** Include and edit this Article if wood flooring is attached to a wood nailing base installed on a concrete substrate. *****
A. Construct platform sleeper nailing base to receive wood flooring:

1. Install framing of 2 by 4 wood sleepers with 6 to 9 percent moisture content laid flat:
   a. Install around the perimeter of wood floor. Position members [1/2 inch] [13 mm] from walls.
   b. In field, lay sleepers at [12 inches] [305 mm] on center.
   c. Glue and sleepers to concrete slab.

2. Install plastic sheet vapor barrier under sub-floor framing. Lap seams [6 inches] [152 mm] and tape.

3. Install [3/4 inch] [19 mm] thick exterior grade plywood sheathing on sub-floor framing over vapor barrier.

4. Prior to installation of wood flooring, install one ply of asphalt felt underlayment.

B. Install an adhered plywood nailing base to receive wood flooring:

1. Trowel apply vapor barrier over concrete slab to receive plywood nailing base. Apply in accordance with manufacturer's instructions and allow to cure 16 hours minimum.

2. Prepare [48 by 96 inches] [1219 by 2348 mm] by [3/4 inch] [19 mm] thick exterior grade plywood as follows:
   a. Score backside of plywood at [8 inches] [203 mm]. Use circular saw set to cut one half the thickness of the plywood.
[a. Cut plywood into [12 by 96 inch] [305 by 2348 mm] boards.]

3. Use [1/4 by 1/4 inch] [6 by 6 mm] square notched trowel to apply 100 percent urethane adhesive.

4. Set plywood [sheets] [boards] into wet adhesive. Use weights to hold in place.

5. Allow adhesive to fully cure before installing wood flooring.
6. Prior to installation of wood flooring, install one ply of asphalt felt underlayment.

***** Include the following paragraph to specify a floating plywood nailing base. *****

C. Install a floating plywood nailing base to receive wood flooring:

1. Lay polyethylene sheet vapor barrier over concrete substrate. Overlap seam [6 inches] [152 mm] and seal with tape.

2. Lay one layer of [5/8 inch] [16 mm] thick exterior grade plywood over vapor barrier.

3. Lay second layer of [5/8 inch] [16 mm] thick exterior grade plywood on a diagonal over first plywood layer.

4. Provide [1/8 inch] [3 mm] between all sides or adjoining square edged plywood panels.

5. Screw plywood layers together in a [6 inch] [152 mm] pattern. Exercise care not to puncture sheet vapor barrier.

6. Prior to installation of wood flooring, install one ply of asphalt felt underlayment.

***** Include the following paragraph to specify a mechanically fastened nailing base. *****

D. Install a mechanically fastened plywood nailing base over vapor barrier to receive wood flooring:

***** Either a plastic sheet or trowel applied vapor barrier can be installed beneath the plywood nailing base depending on type of sub-floor. Edit the following paragraph to indicate type of vapor barrier being used. *****

1. Vapor barrier: [Install plastic sheet vapor barrier over wood sub-floor. Lap seams [6 inches] [152 mm] and tape.] [Trowel apply vapor barrier over concrete sub-floor. Apply in accordance with manufacturer’s instructions and allow to cure 16 hours minimum.]

2. Loose lay [3/4 inch] [19 mm] thick exterior grade plywood over floor on a diagonal to direction of finished floor.

   a. Stagger joints between sheets [48 inches] [1219 mm].
b. Leave [3/4 inch] [19 mm] space at perimeter walls and [1/8 inch] [3 mm] space between panels.

c. Cut plywood to fit under door jambs and within [1/8 inch] [3 mm] of obstructions.
3. Fasten plywood with powder-actuated concrete nails or hammer-driven concrete nails.
   a. Use 9 nails minimum per plywood panel.
   b. Start nailing at center of plywood panel and work toward edges.

4. Prior to installation of wood flooring, install one ply of asphalt felt underlayment.

### 3.3 WOOD FLOORING INSTALLATION

A. Install flooring in accordance with manufacturer’s instructions and approved shop drawings.

B. Intermingle board lengths.

C. Stagger board ends 3 times board width or [6 inches] [152 mm] minimum.

D. Select wood boards from several cartons to ensure good color and shade mixture.

E. Allow [3/4 inch] [19 mm] voids for expansion and movement of wood flooring at walls and permanent obstructions. [For large wood floor areas and high humidity conditions provide center expansion gaps by inserting washers as temporary spacers in accordance with manufacturer’s instructions.]

***** Include the following two paragraphs if wood flooring is installed by nailing and stapling. *****

F. Lay hardwood strip flooring on underlayment over [wood subfloor] [wood nailing base] and [parallel with length of room] [perpendicular to wood joists].

G. Blind staple or nail flooring to subfloor with appropriate flooring nailer or stapler:
   1. Space fasteners at [6 to 8 inches.] [152 to 203 mm.] Fasteners shall not be installed within [2 inches] [50 mm] of board ends to avoid splitting.
   2. Fasteners shall be driven at an angle from the top of the tongue of the flooring board.
   3. Ensure that the flooring nailer or stapler is adjusted to insert fastener at proper angle and is set to the proper depth for flooring being installed to prevent splitting and damage to finished wood surface.
4. Where clearance does not permit blind nailing with flooring nailer, pre-drill holes and top nail on the tongue side of the board.

***** Include the following four paragraphs if adhesive installation method is used. This installation method should be used for 5/16, 3/8 and 1/2 inch (8 mm, 10 mm, and 13 mm) thick maximum wood strip flooring. *****

H. Apply 100 percent urethane vapor barrier to concrete slab. Trowel apply vapor in accordance with manufacturer’s instructions and allow to cure 16 hours minimum.
I. Spread adhesive on concrete substrate with appropriate notched trowel. After spreading adhesive, allow adhesive to “flash off” moisture, then promptly apply flooring. Spread only enough adhesive to permit installation of flooring materials before initial set.

J. Adhere wood flooring strips without cracks and voids. Ensure that each flooring strip is completely adhered to substrate. Ensure a 95 percent transfer.

K. Immediately remove excess adhesive from pre-finished surface of wood flooring.

3.4 INSTALLATION OF TRIM AND MOLDINGS

A. Install wood moldings and trim pieces of types shown and detailed on Drawings and reviewed shop drawings.

B. Preparation: Acclimate wood moldings and trim 48 hours minimum. Pre-drill pieces to be secured by nails to avoid splitting.

C. Cut moldings and trim pieces with motorized miter saw with carbide tipped blade.

D. When installing base or quarter round moldings, attach to wall to avoid restricting expansion and contraction of wood flooring.

E. When splicing moldings and trim, miter cut rather than square cut.

F. Counterset nails and fill holes with wood filler colored to match prefinished trim or molding color.

G. Stair nosings shall be nailed and glued for safety.

3.5 CLEANING AND PROTECTION

A. Remove unused materials and debris. Clean floor surface. Use cleaning products recommended by flooring manufacturer for urethane floors.

B. Protect completed wood flooring from construction operations with heavy paper or plywood sheets installed over walkways. Take necessary precautions to eliminate damage from dropped objects.

C. Instruct Owner’s designated representatives in wood flooring maintenance.

END OF SECTION