ASHAWA BAY
Hardwood Floors

## STAPLE OR NAIL DOWN APPLICATION INSTALLATION INSTRUCTIONS

**PRIOR TO INSTALLATION:**

**Inspect all materials carefully before installation. Warranties do not cover materials with visible defects once they are installed. It is the responsibility of the installer/owner to determine if the jobsite conditions are environmentally acceptable and that the sub-floor system is acceptable for the installation of wood flooring. Ashawa Bay Hardwood Floors declines any responsibility for wood floor failures or problems associated with or resulting from sub-floor/sub-surface structural or environmental deficiencies or jobsite damage after the hardwood flooring has been installed.**

**The following instructions comply with all recommendations as outlined in *Installation Guidelines and Methods* published by the National Wood Flooring Association (NWFA). For additional information contact NWFA at** www.NWFA.org.

NOTE: Ashawa Bay Hardwood Floors recommends the following fasteners and schedules for installing by staple or nail down application.
Staples: 3/8" or narrower crown x 1.25" - 1.5" fasteners, 1-3" from ends, every 3-4" intervals, installed at a 45 degree angle.
Nails: 6d finish nails, or 1.25"-1.5" cleats, 2 fasteners 1-3" from each end, every 4-6" intervals, installed at a 45 degree angle.

**I. SITE CONDITIONS**: Wood is hydroscopic and will absorb or expel moisture based on environmental conditions. Gain and loss of moisture corresponds with an increase or decrease in size and occasional warping. Ashawa Bay Flooring
is 100% hardwood and is more dimensionally stable due to the multi-ply construction but it is not immune to these dimensional changes. For the best results we recommend that Ashawa Bay Flooring be stored in the ***controlled environment*** in which it will be installed for 5-7 days prior to installation.

A. The building should be closed in with all outside doors and windows in
place. The wall coverings should be in place and the painting completed except for the final coat on the base molding. If possible, delay installation of base molding until flooring installation is complete.
All concrete, masonry, framing members, drywall, paint and other "wet" work should be thoroughly dry. Basements and crawl spaces must be dry and well ventilated.

B. Surface drainage should direct water away from the building.

C. Crawl spaces must be a minimum of 18" (46 cm) from the ground to underside of joists. A ground cover of 6-20 mil black polyethylene film should be installed as a vapor barrier with joints lapped and sealed with moisture resistant tape. The crawl space should have perimeter venting equal to a minimum of 1.5 square feet per 100 square feet of the crawl space and allowing for cross ventilation. Note: Local building codes may differ.

D. Ashawa Bay Flooring may be installed below, on or above grade level. Ashawa Bay Flooring is not recommended for applications in areas where excessive humidity is present such as full baths, hot tub enclosures or wine cellars.

E. Permanent air conditioning and heating systems should be in place and operational. The installation site should have a consistent room temperature of 60-80° F (16-27°C) and humidity of 35-50% for 14 days prior, during and after installation.

F. Radiant Heat Applications must meet or exceed all of the requirements in section II and:

1. **Before installation:** The heating system should then be run at 2/3 of maximum output for a minimum of 2 weeks to allow any remaining moisture to evaporate, attaining its final moisture content without causing damage. Three or four days before installation, the heating system must be reduced to a suitable

temperature (about 18c/64f).

2. **After Installation:** Approximately 2 days after installation is complete, gradually (over a period of 1 week) raise the temperature of the heating system to its desired operating level.

3. **Life Cycle: Surface Temperature of flooring should never exceed 81 degrees F/27 degrees C. Exceeding this temperature will void any related warranty by the flooring manufacturer. Most under-floor heating systems DO NOT have a humidification system. Add humidification as necessary to maintain humidity levels between 35-50%.**

**II. SUB-FLOOR REQUIREMENTS**: The following minimum standards must be met **before** beginning the application of any Ashawa Bay Flooring products. The sub-floor must meet the following minimum requirements. See additional requirements specific to the installation method.

**A. LEVEL/FLAT** - within 3/16" in 10' and/or 1/8" in 6'.

**B. CLEAN** - Free of debris, loose materials or materials that may release
with age such as paint and dry wall materials.

**C. DRY** - Check and document moisture content of the sub-floor using the appropriate moisture test. Concrete sub-floors must be a minimum of 30 days old before testing begins. Concrete must not exceed 4.5 using a Tramex Moisture Encounter meter. Calcium Chloride test results should not exceed 3# 24hr/1000 ft2. Wood sub-floors must not exceed 12% and there must be no more than 4% difference between the Ashawa Bay Flooring and the wood sub-flooring material.

**D. STRUCTURALLY SOUND** - The attachment methods used for the installation of Ashawa Bay Flooring ARE NOT designed to stiffen existing sub-floors. If the sub-floor has excessive deflection before installation
of the flooring it is unlikely to improve with the addition of Ashawa Bay Flooring. Excessive deflection may cause premature finish wear and the floor to become noisy with age.

1. **Wood sub-floors**: Wood panels should have an adequate fastening pattern, glued and /screwed or nailed as system requires using the acceptable fastener and pattern. Typical: 6" (15 cm) along
bearing edges and 12" (31 cm) along intermediate supports. Flatten any swollen or raised edges as necessary by sanding or scraping. Nail or screw any areas that are loose or squeak. Replace any water damaged swollen or delaminated sub-flooring or

underlayment. Best results occur when the sub-floor has a minimum thickness of 3/4".

2. **Concrete sub-floors**: Concrete must have a minimum compressive strength of 3000 PSI. The concrete must be free from sealers, waxes, oil, paint, drywall compound, etc. that will interfere with adhesive bonding. Do not attempt to glue a wood floor over a chalky or soft concrete slab.

**III. STAPLE/NAIL DOWN INSTALLATION of Ashawa Bay Flooring:** Ashawa Bay Flooring can be installed over most structurally sound sub-floors provided it is wood or wood composite board (plywood, OSB).

**A. PREPARATION AND LAYOUT:**

1. Inspect all door casings and wall molding. Where necessary cut the moldings to allow the wood flooring to slide beneath them. This can be done with a jamb saw or by placing a piece of flooring (face down) next to the molding. Using a carpenter's saw laying flat on the flooring saw through the casing. Remove the waste material and sweep away all debris.
2. Plan the layout for the best visual appearance of the finished wood floor. Measurements must be made to allow for the width of the flooring plus 1/2" expansion space and must allow for the width of the tongue.
3. Place a mark approximately 18" from the corners of the starting wall and the width of the flooring plus 5/8" to allow for expansion and the tongue. Example: When installing 3" flooring place the mark approximately 18" from each end wall and 3-5/8" from the starting wall. Strike a chalk line through these two points the length of the room to the end walls. This line is the <u>WORKING LINE.</u>

**B. INSTALLATION:**

1. Measure the distance between the WORKING LINE and the wall the full length of the starting wall. If the wall is badly out of line (crooked) it may be necessary to rip boards to the follow the

irregularity in the wall.
2. Using face nailing install a sacrificial row on the INSIDE edge (closest to the wall) of the chalk line. This row may be of any straight wood material or the narrowest width of flooring. Install with the groove side facing the wall. Make certain each of the sacrificial boards is in perfect alignment with the WORKING LINE. When satisfied, attach the board to the sub-floor using finish nails or concrete nails. This sacrificial row is to minimize movement of the flooring during installation and will be removed once the floor installation is complete.
3. Install the first board making certain that the groove side is tight
against the sacrificial board. Installation can be from the left or right. “Blind” nail or staple using the recommended schedule and fastener.
4. Insert the end of the next board into the adjoining tongue or groove
and force the board tightly against the sacrificial board and the end
of the adjoining first board and continue fastening per schedule.
5. After three or more boards have been installed in the first row installation of the second row can began.
6. Select a board for the second row that will allow at least 6” of
difference between it and the length of the board in the first row.
Continue installing in this manner until three or more boards have been installed. Continue adding rows, blind nailing the tongue side. Avoid close alignment of joints in all rows throughout the installation, always attempting to get the maximum spacing available with a minimum of 6”. Avoid alignment of joints in opposite rows, which may create an “H”
pattern in the floor.
7. Cut to length a board that fits at the end of each row always allowing for 1/2″ expansion space at the wall. TIP: Do not cut short
boards to finish a row. The leftover materials will be used for future starter boards. Short lengths cannot be used and will become waste.
8. Measure the final row. Rip the boards (parallel cut) to fit the final

wall allowing for ½" expansion. Use finish nails through the face to secure the final row in place.

9. Remove the sacrificial row being careful to not damage the adjoining boards. If 1/2" expansion is not available because of a bow in the wall rip the boards to allow the required spacing. Using finish nails face nail the final row into place.

**C. COMPLETING THE JOB:**

1. Inspect for gaps, chips and touch up or fill with the appropriate filler as necessary. Use colored latex filler for factory finished products and a stainable filler if the floor is to be sanded and finished.

2. Install/reinstall all moldings and clean the floor with the appropriate cleaner.