

Section IV Appendices

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Appendix A

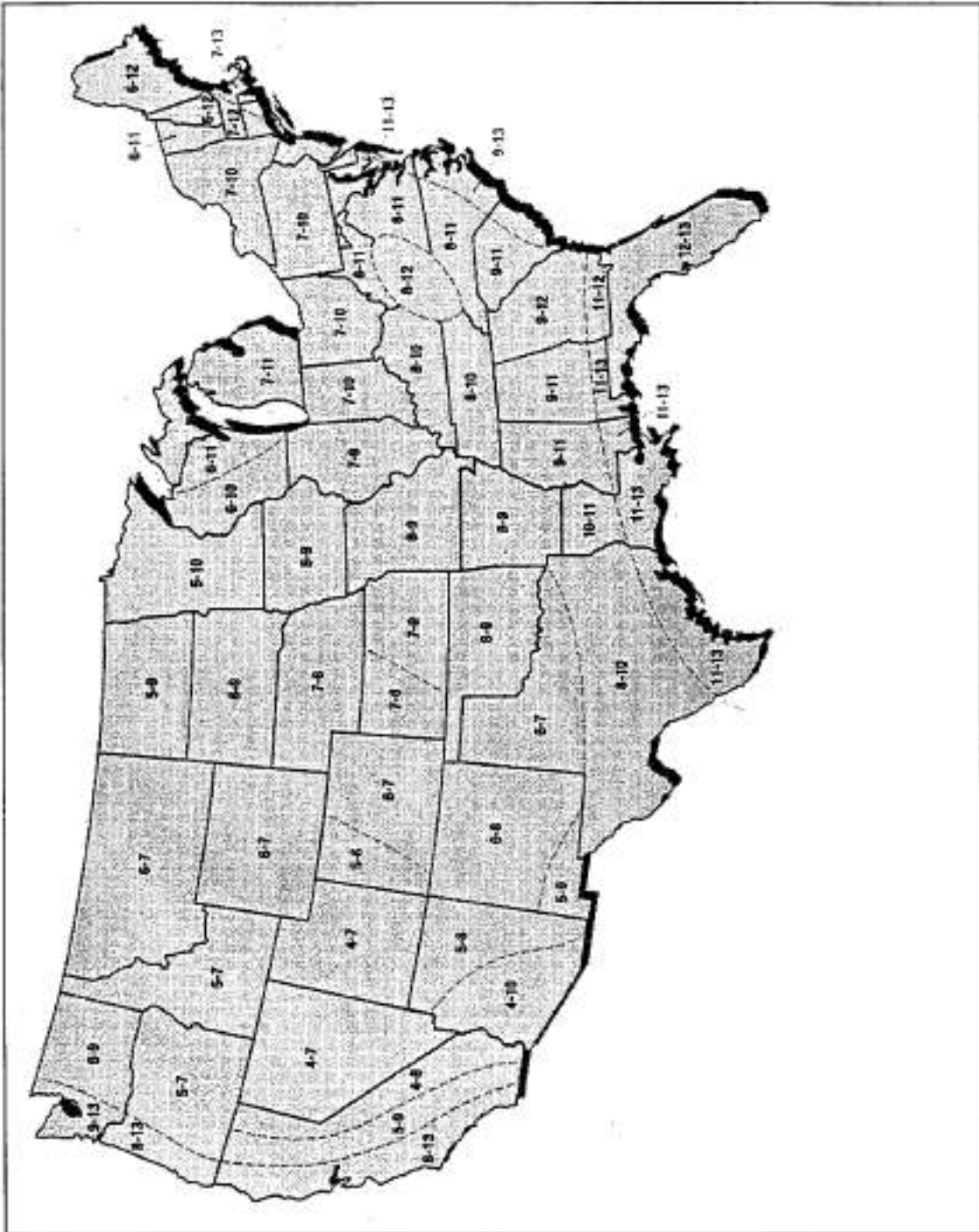
Safety Guidelines

Safety First

Safety on the job is the foremost concern for contractors, because accidents with power tools can be critical, even disabling or deadly. No amount of experience or expertise exempts you from safety risks inherent in using the tools required to install hardwood floors. The good news is that these risks are easily managed. Start with these general guidelines:

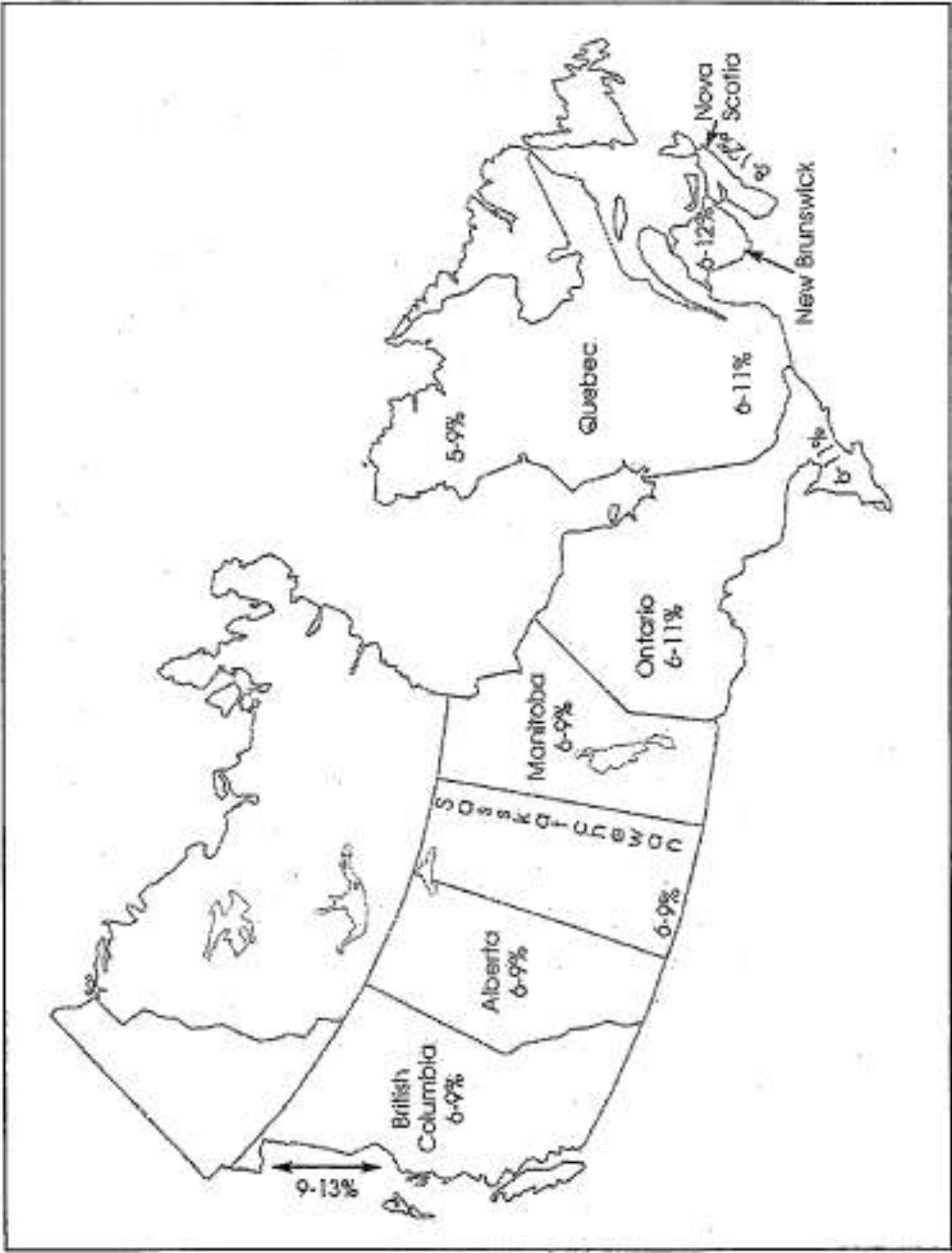
1. Never work under the influence of alcohol, drugs or medication.
2. Work with others nearby, if possible.
3. Do not work on a cluttered floor.
4. Use proper lighting and ventilation.
5. Make sure that the electrical power and wiring at the jobsite is sufficient to operate all machines safely.
6. Know your insurance company's policy on coverage related to accidents or jobsite situations.
7. Wear proper work clothing and shoes. Do not wear loose clothing that could get caught in a machine.
8. Wear NIOSH-approved hearing protection and safety glasses, as well as dust and fume respirators, knee protection and gloves.
9. Have an OSHA-approved first-aid kit on the job site.
10. Read and fully understand the owner's manuals that are supplied with the equipment.
11. Use tools only as intended.
12. Use all tool and machine safety guards.
13. Turn off and unplug electrical tools and machines when making adjustments and attaching accessories.
14. Turn off all sources of ignition when using flammables.
15. Use ground fault circuit interrupters (GFCIs) on electric tools to avoid electric shock.
16. Carry and read MSDS (Material Safety Data Sheets) for all products.
17. Do not exceed manufacturer's recommended working air pressure for pneumatic systems.

Appendix D
Moisture Content by Area – U.S.



Note: Relative humidity in the building should be maintained at between 30-50 percent year-round. A consistent interior climate environment is the key to optimum wood flooring performance.

Appendix E
Moisture Content by Area – Canada



Note: Relative humidity in the building should be maintained at between 30-50 percent year-round. A consistent interior climate environment is the key to optimum wood flooring performance.

Appendix F

Fastener Schedule

Hardwood flooring must be installed over a proper subfloor using a fastener specifically designed for the installation of wood flooring. Tongue and groove flooring must be blind nailed using the appropriate fastener that is specifically made for the type of product being installed. Smooth fasteners (finish nails, etc.) may only be used for the purpose of attaching the start and finish rows either by face or blind nailing.

Wood Flooring Type	Fastener to be Used	Fastener Spacing
Solid strip T&G ¾" x less than 3"	1½" to 2" fastener, or 6d-8d casing or finish nails. On slab with ¾" underlayment, use 1½" fastener	Blind fastener spacing along the lengths of the strips, minimum two fasteners per piece near the ends (1"-3"). In addition, every 8"-10" apart for blind nailing, 10"-12" for face nailing.
Solid strip T&G ½" x 1½", ½" x 2"	1½" fastener	Blind fastener spacing along the lengths of the strips, minimum two fasteners per piece near the ends (1"-3"). In addition, every 10" apart. ½" flooring must be installed over a minimum 23/32" thick subfloor.
Solid strip T&G 3/8" x 1½", 3/8" x 2"	1¼" fastener	Blind fastener spacing along the lengths of the strips, minimum two fasteners per piece near the ends (1"-3"). In addition, every 8" apart.
Solid strip T&G 5/16"	Narrow crowned (under 3/8") 1"-1½" staples or 1"- ½" hardwood flooring cleats	Space fasteners at 3"-4" intervals for staples, 4"-6" for cleats, and within 1"-2" of end joints, or as recommended by the flooring manufacturer.
Solid plank ¾" x 3" or wider	1½"-2" fastener, or 6d-8d casing or finish nails. On slab with ¾" underlayment, use 1½" fastener	Blind fastener spacing along the lengths of the strips, minimum two fasteners per piece near the ends (1"-3"). In addition, every 6"-8" apart for blind nailing, 10"-12" for face nailing. To assist the nailing schedule, option is to apply adhesive.
Engineered wood flooring	Narrow crowned (under 3/8") 1" to 1½" staples or 1"-1½" hardwood flooring cleats designed for engineered flooring	Space fasteners at 3"-4" intervals for staples, 4"-6" for cleats, and within 1"-2" of end joints, or as recommended by the flooring manufacturer.

See Section V, Glossary of Wood Flooring Terms.

Appendix G

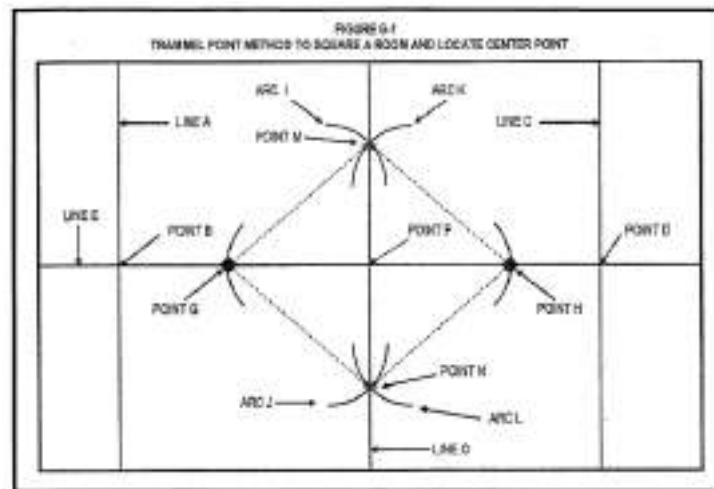
Trammel Point Method

Trammel Points

Trammel points, which are used to scribe a circle or radius, consist of two points mounted on a beam – typically a piece of wood – designed to slide along the beam to increase or decrease the radius. Typically, one of the points is a pencil or pen, while the other is usually a metal point used to anchor the center of the circle or the radius. The size of the radius can be adjusted by sliding the marking point along the beam to the desired length and locking it into position.

Trammel Point Method for Squaring a Room and Finding the Center

See Figure G-1.



1. Measure the width of the room from top to bottom left of center (Line A).
2. Find the center of Line A and mark it (Point B).
3. Measure the width of the room from top to bottom right of center (Line C).
4. Find the center of Line C and mark it (Point D).
5. Adjust for any difference in center between Point B & Point D. For example, if Point B is one inch different than Point D, divide the difference by two to establish the new center point of Line A.
6. Snap a line the length of the room from Point B through Point D. This is now Line E.
7. Find the center point of Line E and mark it Point F.
8. From Point F, use trammel point at fixed position on flat board to mark through Line E left of center, and mark it Point G.
9. From Point F, use trammel point at the same fixed position on flat board to mark through Line E right of center, and mark it Point H.
10. From Point G, use trammel point at a fixed position on flat board to draw arc above Line E. Mark this Arc I.
11. From Point G, use trammel point at the same fixed position on flat board to draw arc below Line E. Mark this Arc J.
12. From Point H, use trammel point at the same fixed position on flat board to draw arc above Line E. Mark this Arc K.
13. From point H, use trammel point at the same fixed position on flat board to draw arc below Line E. Mark this Arc L.
14. Where Arc I and Arc K intersect, mark it Point M.
15. Where Arc J and Arc L intersect, mark it Point N.
16. Snap a line from Point M through Point N, and mark it Line O.
17. Where Line O intersects Line E is the center of the room. Line E and Line O also form a 90-degree angle.

Appendix H

Radiant Heat Installations

With radiant heat, the heat source is directly beneath the flooring, so the flooring may dry out faster than a similar floor in a home with a conventional heating system. Wood flooring can be installed over radiant heat as long as you understand radiant heat and how it can impact wood flooring, what precautions to take, and what type of wood flooring to use.

Types of wood flooring that are best suited-for radiant heat subfloor are products that possess improved dimensional stability such as these:

1. Engineered wood flooring is more dimensionally stable than solid wood flooring.
2. Certain species are known for their inherent dimensional stability such as North American oak, and others. Denser species such as maple and Brazilian cherry are less stable.
3. Quarter sawn and rift-sawn wood flooring is more dimensionally stable in width than plain sawn wood flooring.
4. Narrow boards expand and contract less than wider width boards.

General Radiant Heat Installation Guidelines

1. To minimize the effect that rapid changes in temperature will have on the moisture content of the wood floor, NWFA recommends that an outside thermostat be installed. If one is not present; suggest to your customer that this should be considered. Unlike conventional heating systems, which switch on as needed, radiant systems work most effectively and with less trauma to the wood floor if the heating process is gradual, based on small incremental increases in relation to the outside temperature.
2. Subfloors should have proper moisture tests according to the moisture testing procedures outlined in Chapter 3, Moisture Guideline and Vapor Retarders.
3. The essential requirement in proper applications of wood flooring over radiant heated systems is to avoid penetration of the heating element. Radiant-heated subfloor systems can be concrete, wood or a combination of both. The type of subfloor as described in the previous chapters determines subfloor preparation.
4. If the subfloor is concrete and it has cured, turn the heat on, regardless of season, and leave it on for at least 5-6 days to drive out residual moisture before installation of the wood flooring. Some installation systems, particularly glue-down applications, require the heat to be reduced or even turned off before installation of the flooring begins, so the adhesive does not cure excessively. Test concrete in accordance with Chapter 3, Moisture Guideline Testing and Vapor Retarders.
5. With water-heated radiant-heat systems, a pressure test must be performed and documented by a qualified plumber or the system installer prior to beginning the installation of the wood flooring. Electric under floor systems should also be tested prior to floor installation. Check heat system manufacturer guidelines.
6. If flooring materials that conduct heat at different rates are on the same circuit or heating zone, check with the HVAC mechanical engineer and Radiant Panel Association (www.radiantpanelassociation.org) before proceeding.
7. Radiant heat is dry heat. A humidification system may be necessary to maintain wood flooring in its comfort zone.

The following installation and subfloor systems can be used successfully over radiant heat:

1. Glue-down, engineered or solid parquet.
2. Floating engineered.
3. Direct-nail, solid wood or engineered wood flooring to wood subfloor.
4. Solid T&G floor direct-nailed to sleepers.
5. Single layer of plywood on sleepers.
6. Double plywood floating subfloor.
7. Loose-lay single layer of $\frac{3}{4}$ " plywood cut in 16" planks staggered with $\frac{1}{2}$ " gap between, laid perpendicular to wood direction.

Glue-Down, Engineered or Solid Parquet

Note: Follow manufacturer's installation instructions.

Install over approved subfloor. See Chapter 7, Parquet Installation, and Chapter 8, Engineered Wood Flooring Installation.

1. Use an adhesive approved by the manufacturer.
2. The heating system has to be turned off before installation.
3. The maximum allowable subfloor surface temperature is 85° F (29.44° C).
4. Expect some heating season shrinkage.

Direct Nail, Solid Wood or Engineered to Wood Subfloor

Note: Follow manufacturer's installation instructions.

1. Install over approved subfloor. See Chapter 8, Engineered Wood Flooring Installation, and Chapter 9, Solid Strip and Plank Flooring Installation.
2. Always check for subfloor moisture. See Chapter 3, Moisture Guideline Testing and Vapor Retarders.
3. Solid wood must be properly acclimated to normal living conditions.
4. All other installation procedures are the same as outlined in Chapter 8, Engineered Wood Flooring Installation, and Chapter 9, Solid Strip and Plank Flooring Installation.
5. Be sure fasteners are not so long as to penetrate of heating tubes or heat sources.
6. Maximum subfloor surface temperature is 85° F (29.44° C).

Solid T&G Floor Direct Nail to Sleepers

Note: Follow manufacturer's installation instructions.

1. The use of solid wood flooring 4 inches and wider is not recommended over sleepers.
2. Wood flooring must be properly acclimated.
3. Do not use shorts.
4. Maximum subfloor surface temperature is 85° F (29.44° C).

Single Layer of Plywood on Sleepers

Note: Follow manufacturer's installation instructions.

1. Wood flooring must be properly acclimated.
2. Use extreme caution to prevent penetration of heating tubes or heat sources.
3. Maximum subfloor surface temperature is 85° F (29.44° C).

Double Plywood

Note: Follow manufacturer's installation instructions.

1. Wood flooring must be properly acclimated.
2. Maximum subfloor surface temperature is 85° F (29.44° C).

Floating Engineered

Note: Follow manufacturer's installation instructions.

1. Install over approved subfloor. See Chapter 8, Engineered Wood Flooring Installation.
2. A 6 mil or better polyethylene vapor retarder should be installed over concrete subfloors. In some cases, this may be part of the flooring underlayment.
3. A foam or resilient underlayment recommended by the flooring manufacturer must be installed prior to application of the wood flooring.
4. Use an adhesive approved by the manufacturer for side and/or end joints.
5. Maximum subfloor surface temperature is 85° F (29.44° C).

Appendix I

Installation Over Screeds

1. Note: Solid $\frac{3}{4}$ " and $33/32$ " tongue-and-groove strip flooring may be installed directly to screeds.
2. Note: Engineered wood flooring less than $\frac{3}{4}$ " thick, thin-classification strip flooring (including $\frac{1}{2}$ ") and solid plank flooring (3" or wider) cannot be installed directly to screeds.
3. For engineered flooring less than $\frac{3}{4}$ " thick, thin-classification strip, and for solid plank (3" and wider), the screed system must be overlaid with proper subflooring. The screed system must be overlaid with $23/32$ " (18.3mm) Exposure 1 plywood subfloor panels, or $19/32$ " (15.1mm), Exposure 1 plywood subfloor panels or $23/32$ " (18.3mm) OSB Exposure 1 underlayment properly spaced and oriented perpendicular to screed direction, and across two or more spans.

Installation Method

Note: The following method does not apply to screed systems over radiant heat.

1. Abrade or scrape the concrete slab to ensure it is clean of paint, sheetrock mud and general construction residue and dry of moisture.
2. Check slab for flatness with 6' minimum straight edge.
3. Fill low areas or dips in slab with concrete underlayment compound.
4. Break out or grind down concentrated high areas of slab.
5. Pour hot tar (where building codes allow) or a urethane adhesive to cover the slab completely.
6. Install short lengths (approximately 24") of 2" x 4" or 1" x 4" screeds in the hot tar or urethane adhesive, perpendicular to the direction of the flooring. Screeds should be placed on approximately 6" to 7" centers, to provide approximately 50% coverage. Screed joints should be staggered, easily accomplished by alternating full and half pieces on the starter wall. Note: Treated screeds are preferred only if they are kiln dried after treatment (KDAT). Otherwise, yellow pine, fir or other kiln dried framing species is acceptable. With treated screeds, stainless-steel fasteners are required.
7. Allow adequate time for the tar or adhesive to properly cure.
8. Check screeds for flatness with 6' minimum straight edge.
9. Sand or plane the high areas of the screeds. Shim the low areas of the screeds with your preferred shimming material. Masonite or thin layers of plywood work well. Sand or plane shims to feather out transitions.
10. Cover screeds with an impermeable vapor retarder, such as 6-mil poly membrane.
11. Rack out flooring.

Appendix J

Sound Control

When installing wood floors (hard surface flooring) in multi-family dwellings, it is necessary to take into consideration both the UBC and NBC requirements. The UBC Uniform Building Code and the BOCA National Building Code both have requirements regarding sound control for multi-family dwellings. Areas of the country that do not follow either of these code standards may have local building code regulations with their own sound control requirements. The BOCA National Building Code, 1996, has the following section for sound control:

“1214.2 Air-borne noise: Walls, partitions and floor/ceiling assemblies separating dwelling units from each other or from public service areas shall have a sound transmission class (STC) of not less than 45 for air-borne noise when tested in accordance with ASTM E90 listed in Chapter 35. This requirement shall not apply to dwelling unit entrance doors; however, such doors shall be tight fitting to the frame and sill. 1214.3 Structure borne sound: Floor/ceiling assemblies between dwelling units or between a dwelling unit and a public service area within the structure shall have an impact insulation class (IIC) rating of not less than 45 when tested in accordance with ASTM E492 listed in Chapter 35.”

Condominium associations may have a set of protective covenants with even more stringent regulations than the Uniform or National Building Code. The STC Sound Transmission Class is a laboratory measurement of the ability of a specific construction assembly (such as partition, window, door, etc.) to reduce airborne sounds including voice, television and alarm clocks.

The IIC Impact Insulation Class is a laboratory measurement of the ability of a floor/ceiling assembly to reduce impact sound such as footfalls, movement of furniture, etc. The F-IIC rating is a field measurement done in situ after a floor installation is completed. The higher the value of any of the quantities above, the greater the airborne or impact isolation provided by the assembly.

In any building, a sound rated flooring system, when properly installed, will significantly improve the IIC/FIIC when compared with a non-rated hard surface floor system. The sound rated flooring products do not have a significant effect on the STC measurement.

Sound Control Product Types

There are a wide variety of materials that are marketed for noise control properties. Some are systems, and others are specific materials. Noise transfer from floor to ceiling is dependent upon the entire floor/ceiling assembly.

When comparing the performances in sound control products, only products with testing from a certified laboratory should be considered. Copies of the test should be requested so that variables can be closely compared. Variables, such as type of floor (i.e., wood or ceramic, laminate, marble), concrete thickness, with or without suspended ceiling, wood frame structure can greatly affect the performance or lack thereof, of the product. Comparing products with similar variables make it easier to see which product performs better.

Sound control materials sold with F-IIC ratings (field tests) may not be accurate if all floor and ceiling construction is not included in the test.

Installation

Product installation varies by product and manufacturer. One basic key to peak performance is to avoid hard surface transference points. This would mean that the floor should not come in direct contact with the wall or the molding. A small gap should be left between the molding and the floor as well as the floor and the wall. Leaving a gap would prevent sound from traveling across the floor to the wall or molding and down behind the wall where there is no sound control.

Nails are also considered a hard surface transference point. When installing a nail down wood floor, nails should not penetrate through the floor and into the sound control material and subfloor below. Doing so would greatly diminish the performance of the sound control material.

Appendix K

Trim & Thresholds

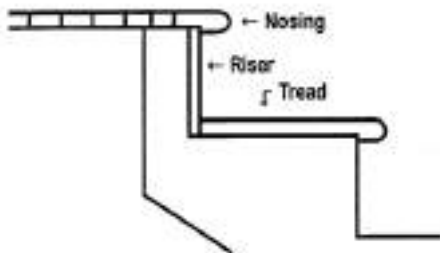
Moldings Used with Hardwood Floors

Wood floors require expansion space at the wall and all vertical obstructions. Moldings are used to cover the expansion area, to hide cut ends, to adjust height differences or transitions between floors and to aesthetically finish the area. Profiles are many and vary through the industry. Here are some examples of standard profiles.



- Baseboard – from 3/8" and thicker, from 1½" and higher used to protect the wall and cover expansion space.
- Base Shoe – from 3/8" to 5/8" thick, from ½" to 1" high; used instead of baseboard or with baseboard too on vertical surfaces/bases to complete expansion coverage; flexible enough to conform to irregular surfaces.
- Quarter Round – one quarter of a full round; from ½" to 1"; used as an alternative to base shoe in some areas.
- Reducer – from 5/16" to ¾" thick, 1" to 3½"+ wide; used to transition in thickness from wood floor down to thinner surface, generally through door openings. Also used to cover expansion space around vertical surfaces such as fireplace hearths when mounted directly to surface of flooring.
- Threshold – from 5/16" to ¾" thick, many widths; used to make the transition at doorways, between interior rooms and to the outside. Can be custom milled to any size.
- Baby Threshold – often variable in thickness. Used to cover expansion space in perimeter areas where vertical molding cannot be used, and to transition to thicker material, such as carpet. Example: Stone, brick wall and hearths as well as floor to ceiling glass and sliding doors. May also be used at existing door thresholds.
- T-Moldings – 5/8" thick by 2" wide, beveled down on both sides with a T-configuration, used for transition from one hard surface floor to another.
- Custom Moldings – Moldings created for unusual circumstances may be manufactured to job site requirements to complement the wood floor and allow for proper transition and coverage of expansion space.

Stairs/Steps



- Stair Riser – ¾" thick, various heights and lengths, used to create the vertical "rise" in the step.
- Stair Tread – ¾" to 1 1/16" thick, various widths and lengths. It is the actual step surface.
- Nosing – also called stair nosing, bull nose, stairwell trim, landing tread. Thickness same as flooring. Used to create finished edge on top step, around stairwell, sunken living room, etc.

For additional information see www.stairway.com.
Follow local building codes.

Appendix L

Sample Specification

For format purposes only.

Part 1 – General

1.1 Summary

A. Section Includes:

1. Solid strip wood flooring

1.2 Submittals

- A. Product Data: For each type of product indicated
- B. Shop Drawings: Show installation details, including location and layout of each type of wood and accessory.
- C. Samples: For each type of wood and accessory, with stain color and finish required, approximately 12" long and of same thickness and material indicated for the work. Include sample sets showing full range of normal color and texture variations expected.

1.3 Quality Assurance

- A. Installer Qualifications: An experienced installer who has completed wood flooring work similar in material, design and extent to that indicated for this project, and whose work has resulted in wood flooring installations with a record of successful inservice performance.
- B. Source Limitations: Obtain each type of material and product from one source with resources to provide materials and products of consistent quality in appearance and physical properties.

1.4 Delivery, Storage and Handling

- A. Deliver wood materials in unopened cartons or bundles.
- B. Protect wood from exposure to moisture. Do not deliver wood flooring until after concrete, masonry, plaster, ceramic tile and similar wet-work is completed and dry.
- C. Store wood materials in dry, warm, well-ventilated, weather-tight location.

1.5 Project Conditions

- A. Conditioning: Maintain relative humidity planned for building occupants, and an ambient temperature between 65° and 75° Fahrenheit in spaces to receive wood flooring for at least seven days before installation, during installation and for at least seven days after installation. After post-installation period, maintain relative humidity and ambient temperature planned for building occupants.
1. For unfinished products, open sealed packages to allow wood flooring to acclimate.
 2. Do not install wood flooring until it adjusts to the relative humidity of and is at the same temperature as the space where it is to be installed.
 3. Close spaces to traffic during flooring installation and for time period after installation recommended in writing by flooring and finish manufacturers.
- B. Install factory-finished wood flooring after other finish operations, including painting, have been completed.

1.6 Warranty

- A. Warranty: Provide manufacturer's standard warranty in which manufacturer agrees to replace materials defective in quality and workmanship.

1.7 Extra Materials

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Wood Flooring: Equal to 1 percent of amount installed for each type and finish indicated.

Part 2 – Products

2.1 Wood Flooring

- A. Wood Material: As indicated in Interior Drawings & Specifications.
- B. Finish System: Water-borne urethane floor finish as approved by flooring manufacturer and as required to achieve desired finish to match customer's sample.

2.2 Accessory Materials

- A. Wood Flooring Adhesive: Adhesive recommended by flooring and adhesive manufacturer for application indicated.
- B. Fasteners: As recommended by manufacturer, but not less than that recommended by the National Wood Flooring Association's "Installation Guidelines and Methods."
- C. Vapor retarder: As required by subfloor conditions and local building codes.

Part 3 – Execution

3.1 Examination

- A. Examine substrates, areas and conditions, with installer present, for compliance with requirements, installation, tolerances and other conditions affecting performance of wood flooring. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Concrete Slabs: Verify that concrete slabs comply with requirements specified by flooring manufacturer or, if none, by test methods specified in the National Wood Flooring Association's "Installation Guidelines and Methods."

3.2 Installation

- A. General: Comply with flooring manufacturer's written instructions and recommendations by the National Wood Flooring Association's "Installation Guidelines and Methods," as applicable to flooring type.
- B. Pattern: Lay wood flooring in pattern indicated in drawings or, if not indicated, as directed by interior designer, architect or owner.
- C. Flooring: Install using one of the following methods, as approved by interior designer, architect or owner:
 - 1. Blind nail flooring to substrate according to methods specified in the National Wood Flooring Association's "Installation Guidelines and Methods."
 - 2. Glue flooring to substrate as recommended by wood flooring manufacturer.
 - 3. Expansion Space: Provide expansion space at walls and other obstructions and terminations of wood flooring of not less than $\frac{3}{4}$ inch, unless otherwise indicated on drawings.
 - a. Unless fully concealed by trim, fill expansion space with flush cork expansion strip.

3.3 Sanding and Finishing

- A. Apply finish according to finish manufacturer's written instructions. Apply the number of coats recommended by finish manufacturer for application indicated.
- B. For water-based finishes, use finishing methods recommended by finish manufacturer to minimize grain raise.

3.4 Protection

- A. Fully cover installed flooring to protect it from damage or deterioration, before and after finishing, and during remainder of construction period. Use building paper or other suitable covering. Do not use plastic sheet or film that could cause condensation. Do not tape covering to finished flooring.
 - 1. Do not cover site-finished floors until finish reaches full-cure, but not less than seven days after applying last coat.

Appendix M

Jobsite Checklist

See Chapter 1, Jobsite Conditions.

One primary rule will eliminate many potential problem-causing jobsite conditions: Wood flooring should be one of the last jobs completed on any construction project. In particular, the jobsite should be enclosed and climate-controlled before wood flooring is delivered or installed. In addition, other trades working on the jobsite can damage the wood flooring installation, so many problems can be minimized by limiting the amount of traffic at the jobsite after the wood flooring is installed.

Certainly the jobsite should be carefully evaluated for potential problems before installation begins, but a thorough site evaluation should also be done even before wood flooring is delivered to the jobsite.

The reprintable Jobsite Checklist on the following pages can be used on the jobsite.

JOBSITE CHECKLIST

I. GENERAL INFORMATION

Owner's name	Date
Address	
Home phone	
Husband's work phone	Wife's work phone
Mobile phone	Pager
Jobsite address	
Jobsite visit appointment date	Time

II. TYPE OF JOB

- Residential Commercial
 New Remodel

III. RESIDENTIAL USE INFORMATION

Traffic: High Average Low
 Any special or unique use _____
 Project rooms/areas _____
 Project budget _____

IV. COMMERCIAL USE INFORMATION

Retail store Restaurant Office
 Bar Other
 Traffic: High Average Low
 High-rise Yes No
 Freight elevator Yes No
 Passenger elevator Yes No
 Hours of access _____
 Power access _____
 Maintenance _____
 Maintenance company _____
 Phone _____
 Proximity of parking _____
 Cost of parking _____

V. INTERIOR

Relative humidity in air-space:
 Hygrometer ____% Sling psychrometer ____%
 HVAC units operable Yes No
 If no, date to be operating _____
 Type of heat:
 Radiant Baseboard Radiator
 Forced air Electric Gas
 Heat ducts Under floor Wood-burning stove
 Overhead

Insulated Yes No

Humidity controls Yes No

Thermostat setting

First unit ____ F Second unit ____ F

Air conditioning Yes No

Large window/sliding glass doors facing:

East South West North

Drapes Yes No

Tinted Glass Yes No

Double-glazed/storm windows Yes No

Kitchen:

Instant hot water Yes No

Refrigerator Yes No

Icemaker Yes No

Food freezer Yes No

Dishwasher Yes No

Other _____

Mud Room/Laundry Room:

Clothes dryer vented outside Yes No

Plumbing leaks _____

Ceiling stains _____

Bathroom:

Bathroom exhaust Yes No

Heated exhaust Yes No

Basement:

Walls cracked Yes No

Paint peeling Yes No

Floor stained Yes No

Damp Yes No

Vented Yes No

Rusty nails Yes No

Sump pump Yes No

Condensation on cold-water lines Yes No

Musty smell Yes No

Heated Yes No
 Air-conditioned Yes No
 Relative humidity in air-space:
 Hygrometer _____% Sling psychrometer _____%

VI. EXTERIOR

Building is over:
 Basement Crawl space Slab
 Relation of lot to street:
 Above Level Below
 Lot cut and fill Yes No
 Relation of lot to neighbor:
 Above Level Below
 Lot drainage away from foundation Yes No
 Shaded lot Yes No
 Gutters/downspouts Yes No
 Directed away Yes No
 Roof overhang Yes No
 Foundation perimeter:
 Waterproof Yes No
 Soil damp Yes No
 Window wells dry Yes No
 Planterbox Yes No
 Shrubs/flowers Yes No

Comments _____
 Yard established Yes No
 Recent Yes No
 Sprinklers/irrigation Yes No
 Excess watering Yes No

Entry is:
 Step up Level Down
 Swimming pool Yes No
 In-ground Above-ground
 Distance from pool to foundation _____ feet
 Street curb drain active Yes No

Crawl Space:

Distance from soil to subfloor _____
 Condensation Yes No
 Musty smell Yes No
 Concrete slab Yes No
 Moisture barrier beneath concrete Yes No
 Dirt floor Yes No

6- or 8-mil black poly cover
 over dirt/concrete Yes No
 15sf open vent per 1,000sf floor area Yes No
 Vents open Yes No
 Cross-ventilation Yes No

VII. SUBLOOR INFORMATION

(Reference NWFA Installation Guidelines, Section 2, Chapters 4-6 for approved subfloor.)

Existing wood type:
 3/4-inch CDX Plywood _____
 5/8-inch CDX Plywood _____
 23/32-inch OSB underlayment grade _____
 Solid board _____
 Other _____
 Joist span 16" >16-19.2"
 >19.2-24"
 >24"

Renail Yes No
 Sand Yes No
 Damage Yes No
 Pet stains Yes No
 Rot Yes No

Other subfloor repair

Average moisture content in flooring _____ %
 Average moisture content in subfloor _____ %
 Average moisture content in sleepers _____ %
 Average moisture content in joists _____ %

In areas or seasons of extreme moisture conditions, check moisture content in:
 Adjacent baseboard _____ %
 Door trim _____ %
 Wood threshold _____ %
 Paint/finish lines exposed Yes No
 Trim pieces dislodged Yes No

Slab:

Relative elevation of slab surface to exterior soil line +/- _____ inches
 Slab tested for moisture before install Yes No

What test _____

Results _____

New slab _____ Date poured _____

Existing slab _____ Age _____

Float/grind slab Yes No
 Install wood subfloor Yes No
 Moisture membrane Yes No
 Flatness _____

