



STA-FAST II SAFE™ SYSTEM

A floating system with increased vertical and horizontal strip retention. This system provides for improved shock absorption characteristics with increased fastener retention. The increased fastener retention is the result of the incorporation of a metal nailing strip laminated between the two subfloor layers. This system exhibits the same characteristics as the Sta-Fast System and also includes a customized cushion effect created by Horner's variable hardness SAFE™ Cushion Pads.

PART 1-GENERAL

1.1 DESCRIPTION

- A. This document specifies a wood strip gymnasium floor system consisting, in general, of wood subflooring, maple flooring, vapor retarder, resilient underlayment, sanding, sealers, finishes, game lines and wall base.
- B. The general contractor shall provide a concrete slab, smooth troweled and level to a tolerance of 1/8" (3mm) in 10'0" (3m) radius, subject to the approval of the wood flooring contractor. LABOR AND MATERIALS NECESSARY TO PUT THE CONCRETE SLAB IN ACCEPTABLE CONDITION (HIGH AREAS GROUND DOWN AND LOW AREAS FILLED WITH APPROVED LEVELING COMPOUNDS) SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
 1. Concrete slab depression to use with 3/4" (19mm) thick SAFE™ cushion pads shall be:
 - a. 2 1/2" (64mm) for 25/32" (20mm) thick flooring.
 - b. 2 3/4" (70mm) for 33/32" (26mm) thick flooring.
 2. Concrete slab depression to use with 7/16" (11mm) thick SAFE™ cushion pads shall be:
 - a. 2 3/16" (56mm) for 25/32" (20mm) thick flooring.
 - b. 2 7/16" (62mm) for 33/32" (26mm) thick flooring.
 3. Concrete slab depression to use with 1/4" (6mm) thick Horner Foam padding shall be:
 - a. 2" (51mm) for 25/32" (20mm) thick flooring.
 - b. 2 1/4" (57mm) for 33/32" (26mm) thick flooring.
 4. Concrete subfloors shall have an adequate vapor retarder beneath and at the perimeter of the slab.

1.2 QUALITY ASSURANCE

- A. Supplier Qualifications
 1. Supplier of wood flooring shall be Horner Flooring Company.
- B. Installer Qualifications
 1. Flooring contractor shall be a firm experienced in installing maple flooring.
- C. Flooring shall be stored on the premises a minimum of seven (7) days before installation commences, or as required for acclimation. Final determination as to acclimation will be made by the flooring contractor.
- D. All flooring bundles should be broken and loosely piled to acclimate the flooring to moisture conditions in the building.

1.3 WORKING CONDITIONS

- A. The floor system shall not be delivered or installed until all masonry, plastering, tile work and all overhead mechanical trades are complete and building is enclosed and weathertight.
- B. Permanent heat, light and ventilation shall be installed and operating during and after installation, maintaining a temperature range of 55°F (13°C) to 75°F (24°C) and a relative humidity range of 35% to 50%.

1.4 WARRANTY

- A. Horner Flooring Company hereby warrants the STA-FAST II SAFE™ SYSTEM flooring materials to be free from manufacturing defects for a period of one year from the date of substantial completion of the floor.

PART 2-PRODUCTS

2.1 MATERIALS

- A. Flooring shall be Horner 25/32" (20mm) or 33/32" (26mm) thick x 2 1/4" (57mm) or 1 1/2" (38mm) wide First, Second and Better, Third and Better or Third Grade, continuous tongue and groove and end-matched MFMA Northern Hard Maple, grade marked and stamped as manufactured by Horner Flooring Company.
OPTION: Horner Long Life™ flooring if so specified.
- B. Vapor retarder shall be 6 mil polyethylene.
- C. Subfloor
 1. Subfloor shall be 2 layers of 15/32" (12mm) rated sheathing, exposure 1, plywood or 2 layers of 7/16" (11mm) OSB.
 2. Nailing strip shall be a 1 1/2" x 8' x 30 gauge (38mm x 244cm x 0.4mm) hot-dipped galvanized steel strip with a hardwood plywood core.
- D. Cushion pads shall be Horner SAFE™ pyramidal pads, 3/4" (19mm) or 7/16" (11mm) thick as specified, attached 12" (305mm) o.c. by the flooring contractor.

OPTION: Cushion shall be Horner Foam, 1/4" x 3" (6mm x 76mm) cross-linked, closed-cell, polyethylene foam strip, as manufactured for Horner Flooring Company.

- E. Fasteners
 - 1. Subfloor fasteners shall be 1" (25mm) nails or coated staples.
 - 2. Flooring fasteners shall be 1 3/4" (45mm) barbed cleats or 15 gauge (2mm) coated staples.
 - OPTION: If Horner Long Life™ is specified, use 2" (51mm) 15 gauge (1.8mm) staples only.
 - OPTION: For Sta-Fast II panel system, use 1 3/4" (45mm) barbed cleats.
- F. Wall Base shall be 3" x 4" (76mm x 102mm) Vent Cove heavy duty molded, vented vinyl cove base with pre-molded outside corners supplied by Horner Flooring Company. Specify color: black or brown.
- G. Finish materials shall be as specified by architect selected from the latest listing provided by the MFMA and shall be applied according to manufacturer's instructions.

PART 3-EXECUTION

3.1 INSPECTION

- A. Inspect concrete slab for proper tolerance and dryness and report any discrepancies to the general contractor for correction.
- B. The concrete slab shall be cleaned of all debris so flooring contractor will have adequate access to work surface.
- C. All work required to put the concrete slab in an acceptable condition shall be the responsibility of the general contractor.

3.2 INSTALLATION

- A. Cover concrete with 6 mil poly, sealing and lapping joints a minimum of 4" (102mm).
- B. Subfloor:
 - 1. Install first layer of plywood or OSB, with pyramidal pads attached, staggering joints and leaving a 1/4" (6mm) expansion space between adjacent sheets. Install plywood parallel to or at 45° to long dimension of room.
 - 2. Install galvanized steel strip across short dimension of room, 6" (152mm) in from edges of plywood, then every 12" (305mm) o.c.
 - 3. Securely fasten second layer of plywood or OSB over the first layer at a 45° or 90° angle to the first layer, again staggering joints and leaving a 1/4" (6mm) expansion space between sheets. Drop chalk lines on surface of second layer to mark location of metal strips.
- C. Install finish flooring parallel with long dimension of room by power nailing or stapling along the chalk lines marking locations of metal strips. Exercise care to ensure nails contact metal strip.
 - 1. Space joints between flooring strips to allow for intermediate expansion, in accordance with local humidity conditions.
 - 2. Provide 2" (51mm) expansion voids at the perimeter and at all vertical obstructions.

3.3 FLOOR SANDING

- A. Machine sand with coarse, medium and fine paper to a smooth, even and uniform surface.
- B. Remove sanding dust from entire surface by tack or vacuum.
- C. Refer to MFMA sanding and finishing guide for procedures.

3.4 FINISHING

- A. Inspect entire area of floor to insure that surface is acceptable for finishing, completely free from sanding dust and perfectly clean.
- B. Apply approved urethane seal and finish per manufacturer's instructions.
 - 1. Apply two (2) coats of seal and two (2) coats of finish.
- C. Buff and clean floor between each coat.
- D. Paint game lines as shown on drawings, between seal and first coat of finish.
- E. Game line paint shall be compatible with finish.

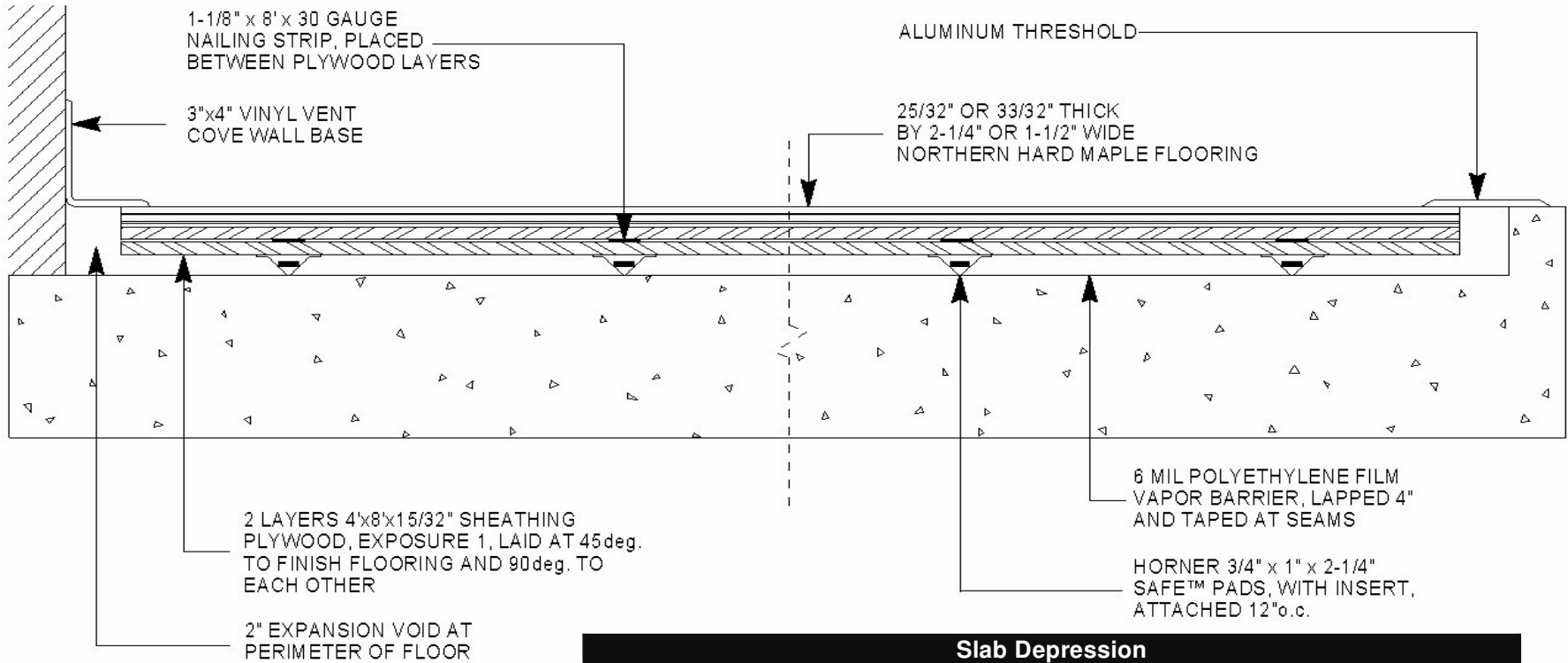
3.5 BASE INSTALLATION

- A. Install Vent Cove base - mitre inside corners, and anchor to walls with base cement or screws and anchors.

3.6 MAINTENANCE

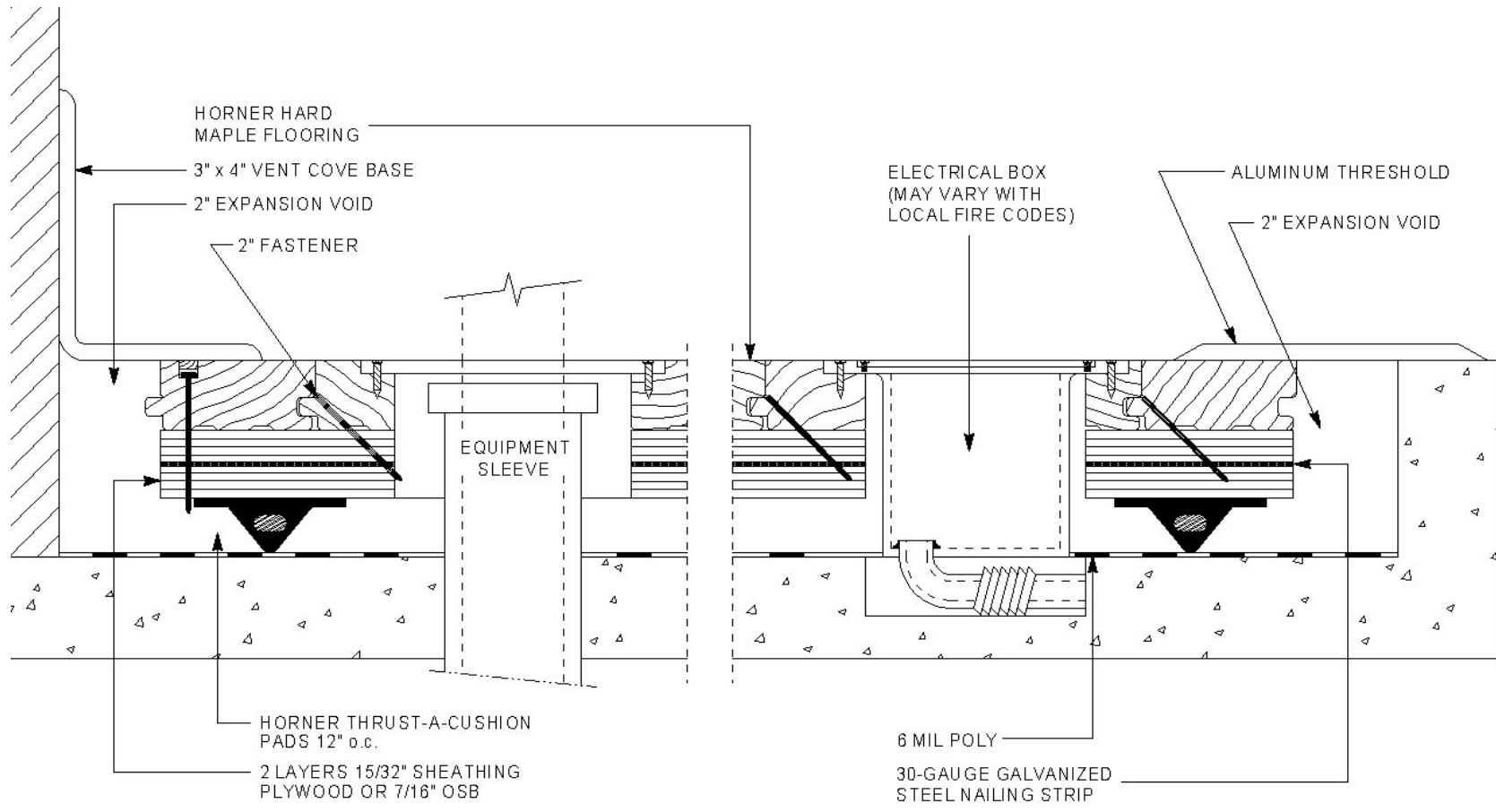
- A. Upon completion of floor installation, the owner, attendants or individuals in charge and responsible for the upkeep of the building are to see that the care and maintenance instructions of the Horner or MFMA Care Card are followed.

* 1/4" SPACE ALONG PERIMETER OF EACH PLYWOOD SHEET



Flooring	Slab Depression	
	25/32" (20mm)	33/32" (26mm)
7/16" pad (11mm)	2-3/16" (56mm)	2-7/16" (62mm)
3/4" pad (19mm)	2-1/2" (64mm)	2-3/4" (70mm)
1/4" foam (6mm)	2" (51mm)	2-1/4" (57mm)

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