



# SAFE™ RESILIENT FIXED SLEEPER SYSTEM

Horner's SAFE™ Resilient Fixed Sleeper System combines the oldest proven sports flooring system with the most advanced shock-absorption technology available. The 7/16" (11mm) or 3/4" (19mm) thick SAFE™ pads are attached to 2" x 3" (51mm x 76mm) (nominal) treated sleepers, and consist of an outer shell and a special insert. Because each pad component is available in a variety of hardnesses, the shock absorption characteristics can be customized by controlling the relative hardness of the shell and insert. In addition to the unique pad design, the system is restrained to provide for improved dimensional stability -- this greatly reduces the risk of buckling and virtually eliminates "dead spots". 23/32" (18mm) thick plywood is used as the subfloor, giving a practically indestructible sports flooring system.

## PART 1-GENERAL

### 1.1 DESCRIPTION

- A. This document specifies a wood strip gymnasium floor system consisting, in general, of wood sub-flooring, maple flooring, vapor retarder, 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 7/16" (11mm) SAFE™ pads shall be:
    - a. 3 7/16" (77mm) for 25/32" (20mm) thick flooring.
    - b. 3 11/16" (94mm) for 33/32" (26mm) thick flooring.
  2. Concrete slab depression to use with 3/4" (19mm) SAFE™ shall be:
    - c. 3 3/4" (95mm) for 25/32" (20mm) thick flooring.
    - d. 4" (102mm) for 33/32" (26mm) thick flooring.
  3. 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 systems.
- 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 flooring system shall not be delivered or installed until all masonry, plastering, tile work and all overhead mechanical trades are completed 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 SAFE™ RESILIENT FIXED SLEEPER 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 Maple, 33/32" (26mm) or 25/32" (20mm) 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. Sleepers shall be 2" x 3" (51mm x 76mm) (nominal), SPF, S4S, and padded with Horner 7/16" (11mm) or 3/4" (19mm) SAFE™ pads and slotted or drilled for Horner Restraints.
- D. Subfloor shall be 23/32" x 4' x 8' (18mm x 122cm x 244cm) rated sheathing, exposure 1, plywood. OPTION: Subfloor can be restrained with the use of 2 1/2" (64mm) Rawl type fastener.

- E. Fasteners
  - 1. Subfloor fasteners shall be 6d (51mm) nails or 1¾" (44mm) staples.
  - 2. Flooring fasteners shall be 2" (51mm) barbed cleats or coated staples.  
OPTION: If Horner Long Life™ is specified, use 2" (51mm) 15 gauge (1.8mm) staples only.
- F. Wall Base shall be 3" x 4" (76mm x 102mm) Vent Cove heavy duty molded, vented vinyl base with premolded outside corners and mitered inside corners as supplied by Horner Flooring Company.
- G. Finish material 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 polyethylene, sealing, and lapping joints a minimum of 4" (102mm).
- B. Install sleepers across short dimension of the area (perpendicular to the finish floor direction), 16" (406mm) o.c., with ends butted and joints staggered by 2' (610mm). Provide a 2" (51mm) expansion void at perimeter and all vertical obstructions. When so specified, install restraints according to manufacturer's instructions.
- C. Subfloor: install 23/32" (18mm) plywood with 4' (122cm) edge at right angles to sleepers. Space all sides of plywood ¼" (6mm) and securely nail or staple to sleepers.
- D. Install finish flooring parallel with main playing court by power nailing or stapling approximately 12" (305mm) o.c.
  - 1. Space Joints between flooring strips to allow for intermediate expansion, as designated by the installer and in accordance with humidity conditions in the region.
  - 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**

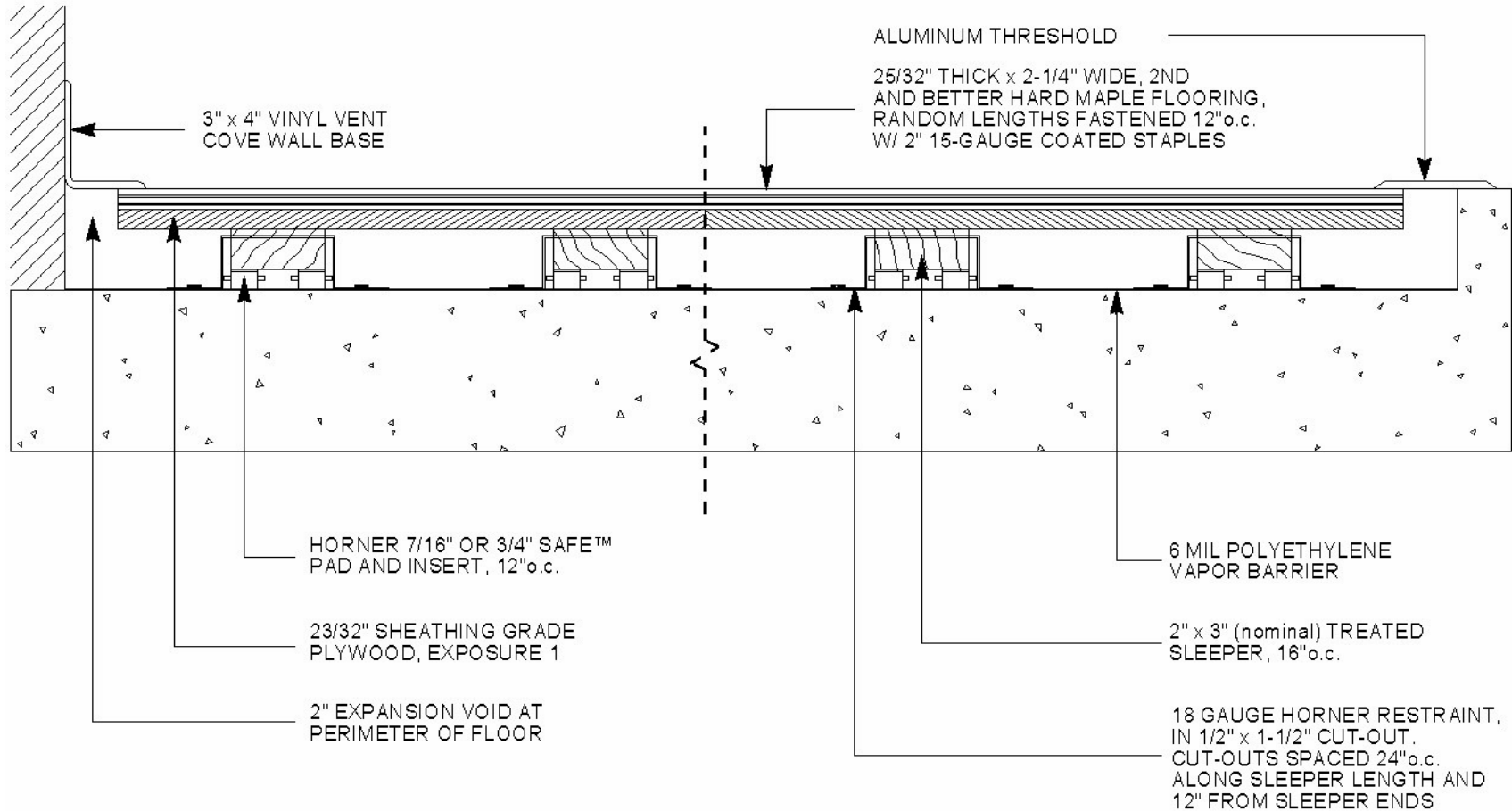
- A. Inspect entire area of floor to insure that surface is acceptable for finishing, completely free from sanding dust and perfectly clean.
- B. Apply seal and finish per manufacturer's instructions.
  - 1. Apply two (2) coats of seal and two (2) coats of finish.
- C. Buff and clean floor between each 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 anchored to walls with base cement or screws and anchors.
- B. Use premolded outside corners and mitered inside corners.

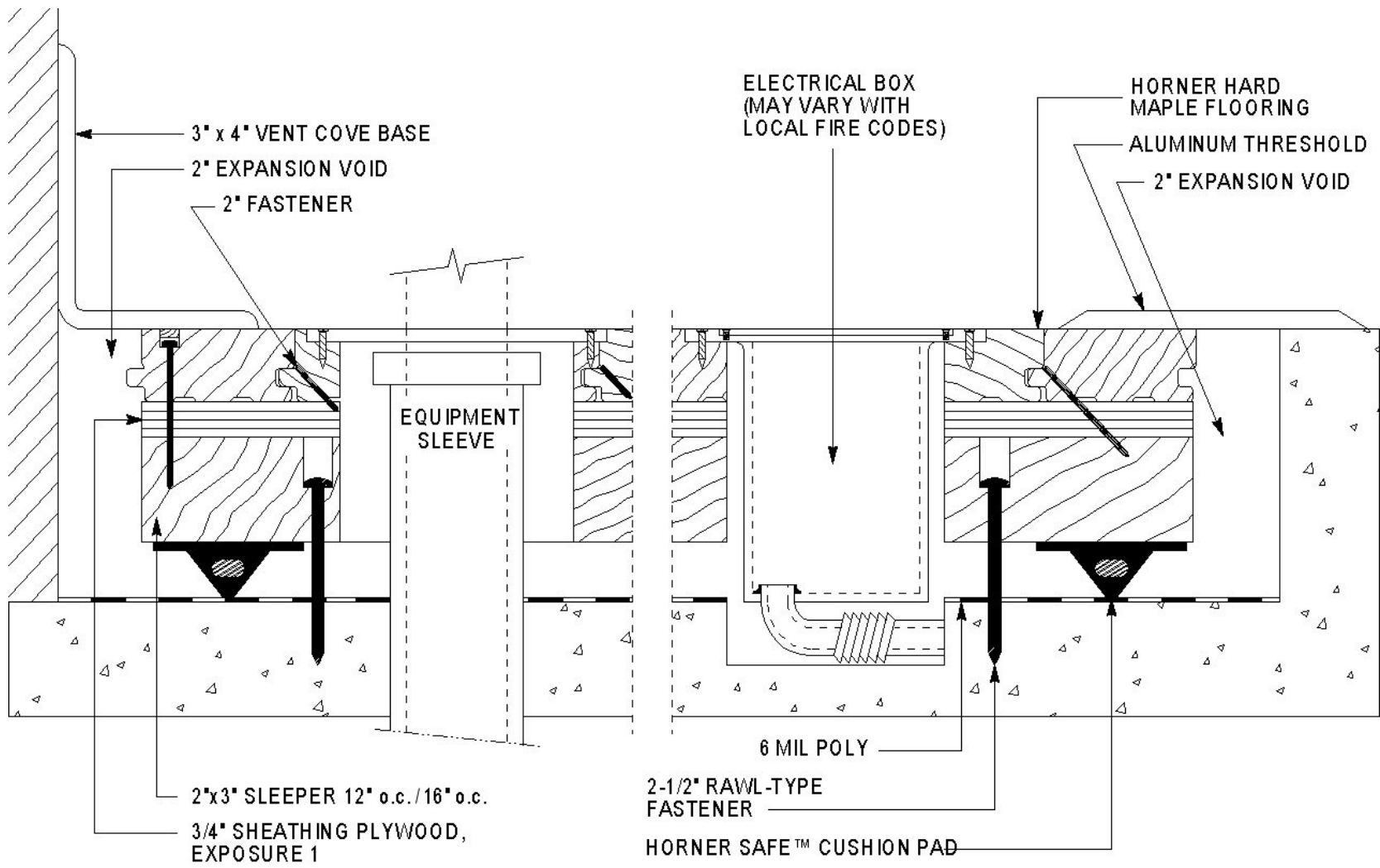
### **3.6 MAINTENANCE**

- A. Upon completion of floor, 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.



Slab Depression		
<b>Flooring</b>	<b>25/32" (20mm)</b>	<b>33/32" (26mm)</b>
7/16" Pad (11mm)	3-7/16" (77mm)	3-11/16" (94mm)
3/4" Pad (19mm)	3-3/4" (95mm)	4" (102mm)

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