**NOTE TO PROJECT ARCHITECT—THIS FLOOR REQUIRES A SLAB DEPRESSION OF 3” & STRICT CONTROLS ON LEVEL DEVIANCE — CONFIRM WITH MANUFACTURER**

# **PART 1 - GENERAL**

**1.01 SUMMARY**

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Resilient Wood Flooring System, including game lines, as indicated.

C. Related Sections:

1. Section 03 30 00: Cast-In-Place Concrete.
2. Section 06 10 00: Rough Carpentry.
3. Section 08 71 00: Door Hardware.
4. Section 09 90 00: Paints and Coatings

**1.02 SUBMITTALS**

A. Shop Drawings: Submit Shop Drawings, including plans and details, indicating areas of flooring and details of installation and finishing. Indicate line markings and school logo locations, colors and details.

B. Material Samples: Submit Samples of finished flooring system mounted on plywood backing. Include exposed edge condition.

C. Installation Instructions: Submit manufacturer's installation instructions.

D. Closeout Submittals: Submit manufacturer's cleaning, maintenance and repair instructions.

**1.03 QUALITY ASSURANCE**

A. Comply with the following as a minimum requirement:

1. Installed surfaces and level changes shall be ADA compliant.

2. Hard maple flooring shall be grade marked and stamped according to standards of the Maple Flooring Manufacturers Association (MFMA) for MFMA-RL

3. Wood shall be grade marked and stamped according to MFMA Standards.

1. Heat, light and ventilation shall be provided and operating during installation, and until the completion of the project, maintaining a temperature range of 55 degrees to 78 degrees F. and a relative humidity range of 35 to 50 percent.
2. Performance Testing:
   1. Flooring system shall have been independently tested and evaluated for athletic performance according to the international standard DIN 18032, Part 2.
   2. Flooring system shall have been independently tested for S.T.E.M. by the Wood Institute at Michigan Tech.

B. Qualifications:

1. Supplier: Wood flooring manufacturer shall have been regularly engaged in business of manufacturing resilient wood flooring systems of the type specified for at least 5 years.

2. Installer: Trained and certified by flooring manufacturer to install the Work of this section.

**1.04 DELIVERY, STORAGE AND HANDLING**

A. Floor system shall not be delivered to the Project site or installed until the building is enclosed and other quality assurances are verified. Flooring shall be stored under ambient building conditions for at least 7 days or as required by the manufacturer before installation. Comply with flooring manufacturer's recommendations for acclimation during storage and before installation.

**1.05 WARRANTY**

A. Manufacturer shall provide a 2 year material warranty.

B. Installer shall provide a 2 year labor warranty.

**PART 2 - PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

1. Conner Sports Flooring, PermaFlex floating sports flooring system, as a reference standard.
2. Robbins Sports Surfaces, Bio-Channel Floor System.
3. Or equal.

**2.02 FABRICATION**

A. Vapor Barrier: 6 mil polyethylene.

B. Sleepers

1. Upper Flex Sleeper 8' X 3 - 3/4" X 23/32" APA rated plywood exposure 1.

2. Lower Base Sleeper 8'X 4" X 3/4" APA rated plywood exposure 1.

3. Steel encasement: 16 Gauge Coated Steel.

C. Resilient pads 7/16" thick - 2" X 2" Din pads.

1. Subfloor - sheeting shall be 15/32" APA rated sheeting exposure 1.
2. Fasteners:

1. Flooring fasteners - 1-3/4" barbed cleats or coated staples.

1. Subfloor fasteners - 1 1/4" subfloor staple or screws and adhesive.
2. Flooring 3/4 inch x 2-1/4 inch, second and better grade, TGEM, Northern Hard Maple MFMA-RL, with continuous tongue and groove, and special locking groove under tongue.
3. Wood Filler: As recommended by floor finish manufacturer.
4. Finish: Sealer and finish shall be by same manufacturer.

1. Bonakemi USA, Inc.:

a. Sealer: One coat of Supersport Sealer (waterborne),

b. Finish: One coat of Supersport One (waterborne),

c. Painting of game lines and logo.

d. Finish: Three coats of Supersport One (waterborne),

1. Hillyard, Inc.:

a. Sealer: Two coats of Tip-Off.

b. Painting of game lines and logo.

c. Finish: Three coats of Contender Finish.

3. Paint: 100% acrylic paint for game lines and logo shall be as recommended by flooring finish manufacturer, and compatible with sealer and finish.

I. Base shall be maple or heavy-duty molded rubber cove base as indicated on Drawings:

1. Where maple perimeter molding is indicated, install at wall as detailed.

2. Where rubber base is indicated, provide 3 inch x 4 inch ventilating type with pre-molded outside corners.

## **PART 3 - EXECUTION**

**3.01 EXAMINATION**

A. Examine areas to receive wood flooring for proper tolerance and quality assurances. Correct unsatisfactory conditions before starting Work of this section.

**3.02 INSTALLATION**

A. Cover concrete with polyethylene sheeting with a minimum joint lap of 6 inches. Continuously seal joints with adhesive recommended by sheeting manufacturer.

B. Sleepers:

1. Areas other than beneath the extended bleachers systems: Install sleepers 16 inches on center at a right angle to finished flooring. Joints shall be staggered at least 4 feet away from each other in each adjacent strip.
2. Areas located beneath the extended bleachers: Install sleepers 16 inches on center at a right angle to finished flooring. Joints shall be staggered at least 4 feet away from each other in each adjacent strip. Provide mid-block sleepers between each sleeper, with the height of the mid-block sleeper 1/8 inch less than adjacent sleepers. Mid-block sleepers are not to be fastened to the sub-floor, but are to be held in place with blocking as required.
3. Areas located beneath the retracted bleachers: Install sleepers 12 inches on center at a right angle to finished flooring. Joints shall be staggered at least 4 feet away from each other in each adjacent strip.

C. Sub-Floor:

1. Layout plywood in staggered brick pattern or according to sleeper layout with long dimensions parallel to and resting on sleepers. Offset all plywood edges at least 2 feet from all sleeper end joints. Fasten plywood with a single ribbon of adhesive and 1-1/2 inch staples installed at 12 inches on center.
2. Provide 1-1/2 inch expansion void at perimeter and at all vertical obstructions.

D. Install maple flooring by power nailing or stapling approximately 12 inches on center with end joints tight. Flooring fasteners are not permitted to be in contact with steel channel.

E. If required, size joints between flooring strips to provide expansion in accordance with Project site humidity conditions.

F. Sanding: After other interior building Work is completed, floors shall be swept clean and sanded as follows:

1. Floors shall be sanded diagonally from wall to wall in one direction, and then shall be sanded diagonally from wall to wall in the opposite direction with No. 2-1/2 sandpaper.

2. Floors shall then be sanded longitudinally, first with No. 1-1/2 sandpaper, second with No. 1/2 sandpaper and third with No. 0 sandpaper, to remove sander marks.

3. Provide a 12 inch drum sander, and sweep floor clean between each sanding.

4. Wherever a drum sander cannot be used, floor shall be sanded as specified above, by use of a spinner to produce uniformly finished floor surfaces.

5. Remove sanding dust from entire surface by tack or vacuum.

6. Inspect entire area of floor to insure that surface is acceptable for finishing, completely free from sanding dust.

**3.03 WOOD FILLER**

A. Install wood filler by brush, followed by wiping across grain to penetrate filler material into pores and cracks of flooring.

**3.04 FINISHING**

A. Examine entire area of floor to ensure that surface is acceptable for finishing, completely free and clean from sanding dust.

B. Install sealer and finish coats per manufacturer’s recommendations. Spray application is not permitted.

C. Paint school logo and game lines as indicated on Drawings using colors indicated. Paint shall be installed between sealer and first coat of finish or between finish coats as per finish manufacturer’s written instructions.

D. Buff and clean floor between each coat.

E. Flooring shall be entirely abraded if floor sits for longer than 24 hours between any two consecutive coatings.

F. Base shall be as indicated on Drawings:

1. Install maple molding with 45 degree miter joints and double-nail corners. Fasten into blocking or last board.

2. Install rubber base and pre-molded outside corners.

**3.05 CLEANUP**

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

**3.06 PROTECTION**

1. Protect the Work of this section until Substantial Completion.

**3.07 INSTRUCTION**

A. After Work of this section is complete, but before Substantial Completion, flooring manufacture’s technical representative shall provide a 4 hour instruction period to Owner staff in maintenance of flooring.

**END OF SECTION**