

SECTION 09642 – WOOD GYMNASIUM FLOORING**PART 1 - GENERAL****1.1 SCOPE**

- A. The furnishing of a completely integrated portable sports floor system, including all locking components, softwood sleepers, subfloor sheeting, tongue and groove connectors, hard maple flooring, sanding, sealers, and basic game lines.
- B. The facility personnel responsible for the assembly and disassembly of the portable floor shall be instructed and trained by a qualified factory representative.

1.2 REFERENCES

- A. **MFMA** - Maple Flooring Manufacturers Association
- B. **FIBA** - The International Basketball Federation

1.3 QUALITY ASSURANCE**A. Manufacturer**

- 1. Complete and full construction of the portable sports floor system including attachments of fasteners, subfloor components, flooring, sanding, sealing, game lines, and finish shall be completed by Connor Hardwood Courts.
- 2. Manufacturer of flooring system must be ISO 9001:2000 Certified to assure quality control of materials provided.
- 3. Basis of design shall be "QuickLock" portable sports floor system as provided by **Connor Hardwood Courts, www.connorfloor.com, (800-833-7144)**.
- 4. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.

- B. **Installation:** Manufacturer shall provide at no cost to the owner, a qualified representative during the initial floor installation to instruct the owner's personnel on the proper assembly, disassembly, moving and storage of the floor.

1.4 SUBMITTALS

- A. **Specification** - Submit Connor QuickLock specification sheets.
- B. **Sample** - Submit one sample of specified system, if requested by architect.
- C. **Maintenance Literature** - Upon completion of floor installation, provide "Assembly and Disassembly – Storage and Care" Guide to owner or individuals in charge and responsible for the upkeep of the flooring system.

1.5 SITE, DELIVERY AND STORAGE CONDITIONS

- A. Care shall be taken by owner upon delivery of floor system to prevent any possible contact with moisture.
- B. System shall be stored indoors upon delivery in a dry protected area with environmental conditions (temperature and humidity) compatible to conditions in assembly area.
- C. Floor system shall not be assembled while subjected to possible moisture conditions including masonry, plaster, tile, marble and terrazzo work or any overhead trades, including mechanical, athletic equipment, lighting or sound.
- D. Permanent heat, light and ventilation shall be completely installed and operating at least two weeks prior, during, and continuously after delivery and/or installation. Acceptable temperature range of 55-degrees to 80-degrees shall be provided. Maintaining a 15% humidity range in the assembly and storage area provides minimal flooring shrinkage and growth. Larger fluctuations in relative humidity will cause excessive wood floor shrinkage or expansion.

1.6 WARRANTY

- A. Connor Hardwood Courts Representation and Warranty - Connor warrants that the floor system supplied will be free from manufacturing defects for a period of one year. The foregoing warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied in operation of law or otherwise, including, but not limited to any implied warranties of merchantability or fitness. This warranty is expressly limited to the floor system supplied by Connor. The warranty does not cover floor damage caused (wholly or in part) by fire, winds, floods, moisture, other unfavorable atmospheric conditions or chemical action, nor does it apply to damage caused by ordinary wear, misuse, abuse, negligent or intentional misconduct, aging, faulty building construction, concrete slab separation, faulty or unsuitable subsurface or site preparation, settlement of the building walls or faulty or unprofessional assembly, disassembly, storage and care of the floor system.
- B. Connor shall not be liable for incidental or consequential losses, damages or expenses directly or indirectly arising from the sale, handling, or use of floor system, or from any other cause relating thereto, and their liability hereunder in any case is expressly limited to the replacement of materials (goods) not complying with this agreement, or at their elections, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such materials (goods), whether such claims are for breach of warranty or negligence. Any claim shall be deemed waived by buyer

unless submitted to Connor in writing within 30 days from the date buyer discovered, or should have discovered, any claimed breach.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Flooring (Connor Laytite Maple)

1. 20mm X 57mm, Second & Better Grade, Northern Hard Maple Flooring, TGEM, MFMA Grade marked and stamped as manufactured by Connor Hardwood Courts, Amasa, MI. Flooring shall be laid in a straight parallel pattern.
2. Options (specify above or delete)
 - a. Sizes – 20mm X 38mm,
 - b. Grades – First Grade, Third Grade
3. SMARTWOOD^{cm} (specify or delete) - Hard maple flooring shall be certified as harvested from managed forest in compliance with the SmartWood^{cm} program of the Rainforest Alliance.

B. Floor System Size

1. Floor system shall measure 19.51m X 34.15, consisting of 240 full (1.22m X 2.13m) panels and 16 half (1.22m X 1.065 m) panels.
2. Options - (specify or delete) -
 - a. 1.22m X 1.22m sections shall extend from each end of the floor system to support portable basketball goals.
 - b. Floor system size shall be modified in 4' increments for an overall measurement of _____.

C. Subfloor

1. Subfloor shall be 11mm oriented strand board.

D. Sleepers - Double layer nominal 19mm x 89mm Fir, Pine or Spruce softwood sleepers.

E. Resilient Pads (specify above or delete)

1. Connor PowerShok pads, 70 durometer, abrasion resistant pads attached at 30cm on center.
2. Connor 19mm X 44mm X 11mm Rezill R4 SmartPads attached 30cm on center with PowerGuard heavy-duty pad encasements.

F. Panel Connectors

1. Panels shall provide continuous 6mm steel tongues with panel attachment holes provided.
2. Panels shall provide high-density polyethylene tapered grooves to mate with steel tongues of adjacent panels.
3. QuickLock pins shall be included for insertion into panel attachment holes as provided in overlapping tongue locations. Inner panel connections shall not be visible after floor system assembly

G. Floor Sanding and Finishing

1. Flooring shall be sanded with coarse, medium, and fine paper to a smooth even and uniform surface.
2. Sanding dust shall be removed from floor surface by tack or vacuum.
3. Floor shall be inspected to insure surface is acceptable for finishing, free from sanding dust, perfectly clean.
4. Two (2) coats of MFMA approved heavy-duty gymnasium seal shall be applied.
5. Two (2) coats of MFMA approved heavy-duty gymnasium finish shall be applied.
6. Floor shall be buffed and cleaned between coats.

H. Game Lines and Marking - Game lines and markings shall be applied between seal and first coat of finish. Paint shall be compatible to gymnasium floor finish. All lines and markings shall be provided as specified by owner. Color of game lines and markings shall match color reference as provided by owner.

I. Optional Storage Carts - (specify above or delete) - Storage carts measuring 1.22m X 2.44m shall be manufactured of heavy duty steel, and include broad based wheels. One cart shall be provided for each row of panels. Typically 16 carts for a standard floor size.

PART 3 - EXECUTION

3.1 INSPECTION (specify above or delete)

A. Concrete Substrate - The general contractor shall provide a broom clean concrete subfloor to a flatness tolerance of 4mm in any 3m radius. The concrete shall be dry to industry standards prior to placement of QuickLock system.

B. Flooring Substrate - Permanent flooring (tile, wood, synthetic flooring, etc.) shall provide a sound-supporting base for the QuickLock system, and provide a flatness tolerance of 4mm in any 3m radius. If necessary, a protective cover shall be provided by the facility owner to prevent marring of the support floor.

C. Ice Rink Substrate - Ice covering panels must provide a sound surface capable of supporting the QuickLock system without indentation of the covering panels. All ice cover panels shall be abutted tight at end and side joints, and provide an overall flatness of 4mm in any 3m radius.

3.2 ASSEMBLY

Note: Take care to prevent damage to panel side edges when un-stacking panels. Do not slide or drop panels from stack.

- A. Identify designated row letters and panel numbers as posted on side edges of panels.
- B. Align panel A1 at designated starting point with outside edge of panel aligned parallel to string or chalk line. Abut end of panel A2 to end of panel A1 and insert Quick Pins at outer edge of panel joints. Continue procedure to complete Row A in numbered order.
- C. Begin Row B with starting edge of Panel B1 aligned evenly with starting edge of Panel A1. Align Panel B1 tightly to end of Panel A1 and insert Quick Pins where required to lock Panel B1 to Row A. Align Panel B2 tightly to end of Panel B1 and to side edge of Row A to allow insertion of Quick Pins. Continue installation of Row B in numbered order.
- D. Continue assembly of remaining rows with same positioning and Quick Pin method.

Important: Do not strike hardware or flooring edges when tapping panels into position. This will damage the panels.

3.3 DISASSEMBLY

- A. Begin disassembly in opposite order of assembly. Remove Quick Pins and slide each panel clear of other panel edges before lifting.
- B. Stack each row in reverse order of assembly with panels stacked face-to-face (with protective material), and back-to-back.
- C. Typically each row should be provided on its own stack or storage cart. Rows that begin and end with half panels (1.22m X 1.065m) should be stacked with both half panels on top of stack.

Note: Do not slide panels onto stack, lift to clear lower panel when stacking.

3.4 STORAGE

- A. Panels should be transported to and from storage area with care. The use of forklifts requires broad lifting support. Forks must provide adequate length and spread widely to fully and carefully lift and maneuver panels and/or storage carts.
- B. Storage area must be dry and well ventilated with temperature and humidity compatible with the arenas environment. Temperature of 60-80-degrees and humidity of 35%-50% is recommended for the most favorable system performance.

3.6 CARE

- A. Panels should be lifted when stacking or un-stacking; in a manner that prevents damage to the floor finish, and system components.
- B. Do not strike hardware or flooring edges when tapping into position. This will damage floor panels.
- C. Avoid impacts against side edges when handling panels manually or with a lift truck.
- D. Dry mop floor after installation, before each game, during halftime and prior to storage.
- E. The use of tape and/or decals may damage the floor finish.

END OF SECTION 09642

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