SECTION 09624 - MODULAR ATHLETIC FLOORING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope
   1. The complete installation of modular sports surfacing system including the interlocking suspended high-impact polypropylene copolymer tile of proprietary formulation, supportive acoustical underlayment and striping.

B. Related work specified under other sections.
   1. CONCRETE SUBFLOORS - SECTION 03_ _ _
      a. The general contractor shall furnish and install the concrete subfloors.
      b. The slab shall be steel troweled to a medium-dense finish to a tolerance of ±1/8" (3.2mm) in any 10' (3m) radius. Floor Flatness and Floor Levelness (FF and FL) numbers are not recognized. High spots shall be ground level and low spots filled with approved leveling compound.
   2. GAME STANDARD INSERTS - SECTION 11_ _ _

1.2 REFERENCES

A. ASTM (American Society for Testing & Materials)
   1. ASTM D 256
   2. ASTM D 638
   3. ASTM D 648
   4. ASTM D 785
   5. ASTM D 792
   6. ASTM C 1028
   7. ASTM G 21

B. ISO (International Organization for Standardization)
   1. ISO 1183
   2. ISO 527-1, -2
   3. ISO 179
   4. ISO 180
   5. ISO 75B-1, -2

C. EN (European Norm)
   1. EN 13036-4
   2. EN 12235:2004
   3. EN 1569:1999
   4. EN 13501-1
   5. EN 14904:2006
   6. EN ISO 2813
   7. EN ISO 5470-1

1.3 SUBMITTALS

A. Sport Court® Response™ Specifications.
B. One sample of specified system, if requested by Architect.
C. Sport Court Modular Sports Flooring Installation Guide.
D. Sport Court Modular Sports Flooring Care and Maintenance Guide.
E. Sport Court Response Warranty.

1.4 QUALITY ASSURANCE

A. MATERIAL SUPPLIER:
   1. Shall be Connor Sport Court International, Inc. (manufacturer)
   2. Manufacturer must be ISO 9001:2008 and ISO 14001:2004 Certified to assure proper quality and environmental control.
   3. Manufacturer shall be a Zero Waste company.
   4. Manufacturer shall have produced sports surfaces for a longer period of time than their stated warranty.
   5. Surfaces must be certified for competition by the international federations for basketball

(FIBA), volleyball (FIVB), handball (IHF) and badminton (BWF).

B. INSTALLER:
   1. The complete installation of the flooring system as described in these specifications shall be carried out by an experienced installer (Flooring Contractor), and the work shall be performed in accordance with current Sport Court installation instructions.
   2. Installer (Flooring Contractor) shall be liable for all matters related to installation for a period of one year after the floor has been substantially installed and completed.
   3. Successful bidder must submit a minimum of five (5) completed modular projects of similar magnitude and complexity within the last two (2) years.
   4. Bidder must provide all sample tile, accessory products, and documentation.

1.5 DELIVERY, STORAGE AND HANDLING

A. Materials must be delivered in manufacturer's original, unopened and undamaged packaging with identification labels intact.
B. Store material on a clean, dry, and flat surface, protected from exposure to harmful weather conditions or possible damage.
C. Storage conditions shall be 55°F to 80°F (13°C to 27°C).

1.6 SITE CONDITIONS

A. In order to prevent damage and not void the warranty, installation of modular materials shall not commence until all other finishes and overhead mechanical trades have completed their work in the modular floor areas.
B. Permanent heat, light and ventilation shall be installed and operating during and after installation.
C. Subfloors shall be clean, dry and free from dirt, dust, oil, grease, paint, old adhesive residue, or other foreign materials.
D. Flooring installation shall not begin until the levelness requirements of concrete subfloors have been met.
E. The installation area shall be closed to all traffic and activity for a period to be set by the flooring contractor.
F. Product shall be conditioned at temperatures between 55° F to 80° F (13° C to 27°C) and shall be maintained for 72 hours prior to, during, and 72 hours after installation.
G. Environmental Limitations
   1. Comply with the Sport Court requirements.
   2. Adhere to all MSDS requirements for materials employed in the work.
   3. Protect all persons from exposure to hazardous materials at all times.
H. After modular floors are installed and the game lines painted, the area is to be closed to allow curing time for the system, typically 3-5 days. No other trades or personnel are allowed on the floor until it has been accepted by the owner.

1.7 WARRANTY

A. Sport Court provides a limited warranty of fifteen (15) years on the materials it has supplied. (A copy of the full warranty, with its Terms and Exclusions, is available from the authorized Sport Court Dealer.) This 15-Year Limited Warranty is subject to the Indoor Modular Flooring Warranty and all of its provisions. This warranty is expressly limited to the flooring materials (goods) supplied by Sport Court. During the period covered under this Indoor Modular Flooring Warranty, Sport Court shall repair/replace any defective tiles with the same or substantially similar product according to the schedule in the Indoor Modular Flooring Warranty. The Indoor Modular Flooring 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 installation of Sport Court flooring systems.
B. Sport Court shall not be liable for incidental or consequential losses, damages or expenses directly or indirectly arising from the sale, handling or use of the materials (goods) 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 election, 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 Sport Court in writing within 30 days from the date buyer discovered, or should have discovered, any claimed breach.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Sport Court Response™ Patented Suspended Flooring shall be:
   1. Solid-top design.
   2. Metric-sized: 25cm x 25cm x 12.7mm (9.842" x 9.842" x ½").
   3. High-impact polypropylene copolymer suspended modules.
   4. 281 individual hexagonal cell support structure.
   5. The tile shall have a patented positive locking system.

B. Standard Colors: Pearl Burgundy, Pearl Navy Blue, Pearl Royal Blue, Pearl Evergreen, Black, Pearl Graphite, Pearl Silver Blue, Pearl Gold, Ultra Red, Pearl Shamrock, Ice Blue, Pearl Orange, Pearl Purple, Pearl Beige, Yellow

C. Color Consistency: ΔECMC < 1.0

D. Weight: 0.60 ± 0.01 lbs. (271 ± 5 grams)

E. Packaging: Product is shipped in pre-assembled sheets (2x4 modules per sheet, 6 sheets per box).

F. Material Test Results

1.	Rockwell hardness:	(ASTM D 785)	65 R
2.	Heat deflection:	(ASTM D 648 @ 66 psi)	85°C
		(ISO 75B-1, -2 @ 40.45 MPa):	73°C Unannealed
3.	Tensile Yield Strength:	(ASTM D 638)	3,000psi
		(ISO 527-1, -2)	20 MPa
4.	Elongation at Yield:	(ASTM D 638)	5%
		(ISO 527-1, -2)	5%
5.	Notched Izod:	(ASTM D 256)	No break at 23°C
		(ISO 180)	31kJ/m^2
6.	Charpy Notched Impact:	(ISO 179 @ 23°C)	26kJ/m^2
7.	Density:	(ASTM D 792)	0.902 specific gravity 23/23°C
		(ISO 1183 @ 23°C)	0.90 g/cm^3

G. Product Test Results

1.	Friction:	(ASTM C1028)	Dry:	0.60
		(EN 13036-4)	Dry:	105
2.	Rolling Load:	(EN 1569:1999)	0.43mm No damage	
3.	Reaction to Fire:	(EN 13501-1)	E_{fl}	
4.	Emission of Formaldehydes	(EN 14904:2006)	E1	
5.	Content of Pentachlorophenol	(EN 14904:2006)	Not Containing	
6.	Specular Gloss	(EN ISO 2813)	27%	
7.	Flatness:	0.0" +0.029" /-0.0" (0.0mm +0.74mm /-0.0mm)		
8.	Lateral Forgiveness™:	+0.045" / -0.0" (+1.14mm /-0.0mm)		

H. Load Bearing Capacity: 200 psi (1.38 MPa)

I. Underlayment
   1. Multi-purpose recycled rubber underlayment
   2. Thickness: 0.06" (1.5mm)
   3. Density: 60 lbs. cu. ft. (961 kg/m^3)
   4. Durometer: 60 ± 5 on the Shore M or Shore A scales.

J. Sanitary Information
   1. Resistance to fungi (when tested in compliance with ASTM G-21 and MIL standard 810-D procedure 508.3). All basic organisms tested (ATCC #6205-11797) and were found to have zero growth.
   2. Resistance to the following:
      a. Bacteria and mildew resistance
      b. Gram-positive bacterial Staphylococcus Aureus

c. Gram-negative Klebsiella Pneumoniae
d. Pink-staining organism
e. STV Reticulum
f. Surface fungi growth prior to and following leaching

K. Game Line Paint
1. Sport Court adhesion promoter – proprietary adhesion promoter as supplied by Sport Court.
2. Paint – aliphatic polyurethane as supplied by Sport Court. Select from standard colors.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect concrete slab for contamination, dryness and levelness. Report any discrepancies to the general contractor.
B. Concrete slab shall be broom cleaned, mopped and dust free by the general contractor.
C. Installer (Flooring Contractor) shall document all working conditions as specified in PART 1 – GENERAL prior to starting installation. Report any discrepancies to the general contractor.

3.2 INSTALLATION

A. Underlayment – Rubber underlayment shall be unrolled and allowed to relax. All butt joints shall be properly trimmed, fitted, and seamed together with an approved all-purpose tape.
B. Floor shall be installed to pre-approved layout.
C. Minimum clearance at all vertical obstructions of 3/4 inch (19mm) is required.
D. Floor surface shall be clean and dust free.
E. Game Lines
1. Use only high quality masking tape approved by Sport Court.
2. Lines shall be primed and painted using Sport Court proprietary adhesion promoter and recommended aliphatic polyurethane paint.
3. Provide game lines as indicated on drawings.
4. Room temperature shall be >55° F (13°C) and rising during paint installation.
F. Wall Base (optional) - Install cove base anchored to walls with base cement.
G. Remove all excess and waste materials from the area of work. Dispose of empty containers in accordance with federal and local statutes.

END OF SECTION 09624