ANDERSON
COURTS AND SPORTS SURFACES, INC.

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# Section 13032 - RACQUETBALL, HANDBALL OR SQUASH COURTS

## Part 1 – General

1.1 Related Documents

A. The General Provisions of the Contract, including General and Supplementary Conditions and requirements apply to the work specified in this Section.

1.2 Section Includes

A. Framing – reference only – see framing and drywall sections.
B. Wall and Ceiling Systems
C. Hardwood Flooring Systems
D. Glass back walls, doors and hardware
E. Netting
F. Markings

1.3 Quality Assurance

A. All system components must be supplied by Anderson Courts and Sports Surfaces, Inc. of Buffalo, New York.
B. The installer shall be trained and certified by Anderson Courts and Sports Surfaces, Inc. with at least 5 years of experience.

1.4 Job Site Conditions

A. The Court system shall not be installed until all masonry, plastering and drywall work is complete and overhead mechanical trades and painters have finished in the area. The building must be reasonably dry; all openings closed in; permanent heating and air conditioning installed and working before, during and after installation.
B. The area shall be dry, free of foreign materials and turned over to the Court installer broom clean. Moderate room temperature of 65° or more shall be maintained a week preceding and throughout the duration of the work.

1.5 Warranty

A. Provide a written Warranty for the materials and labor specified in the following sections.

## Part 2 - Products

2.1 **Framing - by General Contractor – Specs provided for reference only.**
Note: All steel members to meet AISI spec., ASTM A466, Grade A.

A. Wall Framing

1. Wall Framing - 18 ga. x 6" galvanized C - studs spaced 12" o.c. for head walls and 16" o.c. for other walls .Walls should be stiffened with horizontal stiffener at 5' centers. 3 ½" or 3 5/8" studs may be substituted when attached to structure at ¼ points for added rigidity. Stud layout pattern supplied by the court installer must be followed. Vapor barrier exterior, wet area and certain masonry or poured walls. Note: Vapor barrier must be behind surface attachment point for Fiberesin.
2. Wall Furring Channels on masonry walls - 18 ga. galvanized furring or Z - channels spaced as above. Stud layout pattern supplied by the court installer must be followed. Substantial attachment of metal firring is mandatory so that all fasteners are secure and the firring is attached to the wall at 16" centers. Loose firring will not be accepted. Attachment via suitable mechanical fasteners supplemented by construction adhesive. Note: Vapor barrier must be behind surface attachment point for Fiberesin.

3. Construction grade lumber of equal strength may be substituted for steel. Attachment conditions apply.

B. Ceiling Framing - racquetball

1. Joists - 16 ga. x 6" galvanized C - joists spaced 16" o.c...

2. Suspended - 1 ½" c.r. channels and drywall furring channel attached 16" o.c. or direct screw grid.

3. Concealed Grid - National Rolling Mills Ml 6000 series or equal wire suspended.

4. Construction grade lumber may be substituted.

C. Substrates behind playing surfaces – Optional but highly recommended.

1. Insulation - Insulate stud cavities for sound attenuation with fiberglass batt insulation. Insulate Z-channel firring with foam insulation.
2. Install 5/8" fir plywood on studs behind playing surface of court. Securely fasten substrate to framing with appropriate fasteners on 8" centers, being sure to set all fasteners. Remove all surface contaminants.
3. Install 5/8" Type x drywall on studs behind playing surface of court. Securely fasten substrate to framing with appropriate fasteners on 8" centers. Single coat seams to provide a reasonably flat surface. Do not sand. Remove all surface contaminants.

4. The general contractor shall provide steel or wood support framing to a tolerance of plus or minus 1/8" in 10'0" of plumb and straight, subject to approval by the panel installation contractor. Moisture barriers must be adequate for conditions.

2.2 Wall and Ceiling Systems

A. The information herein details a High-Density, pre-fabricated wall system suitable for racquetball, handball or squash courts and gymnasium wall surfaces.
B. Provide materials and labor to complete courts as specified utilizing Fiberesin 1 1/2" – M-3, 1 1/8" – M-3 for front walls and 1 1/8" –M-2 or 13/16" – M-3 for sidewalls. There even plane, uniformed textured nonskid surface ensures consistent, predictable rebounds. Fiberesin Hi-Density wall panels are accredited by the World Squash Federation, guaranteeing that they meet the WSF high technical standards.
C. Provide all labor, equipment and materials to finish and completely install the Fiberesin panel system as called for in the drawings.
D. All system components must be supplied by Fiberesin Industries of Oconomowoc, Wisconsin and Anderson Courts and Sports Surfaces, Inc. of Buffalo, New York
E. The panel installer shall be trained and certified by Anderson Courts and Sports Surfaces, Inc. with at least 5 years of experience
F. The panel system shall not be installed until all masonry, plastering and drywall work is complete and overhead mechanical trades and painters have finished in the area. The building must be reasonably dry; all openings closed in; permanent heating and air conditioning installed and working before, during and after installation.
G. The area shall be dry, free of foreign materials and turned over to the panel installer broom clean. Moderate room temperature of 65° or more shall be maintained a week preceding and throughout the duration of the work.
H. Warranty
   1 Fiberesin Industries warrants the panels it ships to be free of defects in material and workmanship and from delamination for a period of ten (10) years. Anderson Courts and Sports Surfaces, Inc. warrants the materials it ships and installation to be free of defects in material and workmanship for a period of one (1) year. The exclusive remedy under this warranty shall be replacement of defective materials supplied by Fiberesin Industries/Anderson Courts and Sports Surfaces, Inc., or correction of defective installation. All implied warranties of merchantability or fitness for intended use are limited to the period of this warranty. This warranty excludes consequential damages.
   2 This warranty does not cover damage caused by fire, winds, floods, chemicals or other abuse or by failure of other contractors to adhere to specifications, or neglect of reasonable precaution to provide ventilation during hot and humid weather. This warranty also excludes damage due to excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall or any other source. This warranty also excludes damage to the panels due to ordinary wear and tear, faulty construction of the building (other than the panel installation), separation of the concrete slab or settlement of the wall framing or substrates.

G. Panels - Fiberesin panels with 55#/CF M-3 (front walls), 55#/CF M-3 or M-2 (side and rear walls) and 46#/CF (ceiling) average composite density panel specifications required (average values)

1. Melamine laminate faces and back thermally fused to high strength particle board, meeting all test results of Fed. Spec.'s L-T-0041C (GSA - FSS type III)
2. Stain - pass NEMA LD 3.1 - 95
3. Screw holding - ASTM D - 1037 Face 450#
4. Mechanical properties - internal bond 145PSI
5. modulus of rupture 3408PSI
   - modulus of elasticity 398,900PSI
6. Impact (NEMA LD 3.1 - 80) 52"

7. Dimensional change - 0.4% in 90°F - 90% r.h. for 60 days.
8. Abrasion (NEMA LD 3.1 - 80) 2500 cycles.
9. Flame spread for 55#/CF M-3 panel (ASTM E84 procedure) flame spread 90, fuel contributed 105, smoke density 200.

H. Description

1. Wall and ceiling panels are specified composite density particle board core thermally fused between melamine laminate face and back with white texture finish on the face.
2. Front walls - 1 1/2" (WSF approved ) or 1 1/8" x 48" x 96", +/- 5% density; 55#/CF M-3 panel with high solids modified acrylic edge finish. Precut panels will be dimensionally true plus or minus 1/16".
3. Side and rear walls - 1 1/8" (WSF approved ) , 55#/CF or 13/16", 55#/CF M-3 panel +/- 5% density by 48" x 96"; high solids modified acrylic finish. Precut panels will be dimensionally true plus or minus 1/16".
4. Ceiling panels - 5/8" or ¾" x 48" x 96" or 24" x 48", 46#/CF +/- 5% density with 45#/CF density core. Pre cut panels will be dimensionally true plus or minus 1/16".
5. Doors – 1 1/2" solid Fiberesin panel frame and door with 13/16" stops, edges lacquered. Full piano hinges, 4 ¼" dia. pull ring, ½" x 10" x 10" "Lexan" window and black laminate push plate.
   Model CF Door size - 36 7/8" x 79 ¼", Jamb size - 40 ¼" x 82 ½"
6. Safe keeper (Racquetball only) - wall panel stock, "Lexan" door, piano hinge and magnetic catch.
   Model SK - 01 Size - 14 ½" x 6" x 8"
7. Panel attach - H-spline, construction adhesive and ½" low profile s -12 screws.

2.3 Hardwood Flooring

A. The information herein details a ventilating cushioned floor system utilizing resilient cushioned pads and wood subflooring.
B. The general contractor shall provide a level, steel troweled slab to a tolerance of plus or minus 1/8" in 10'0" radius and subject to the approval of the wood flooring contractor. Moisture barriers must be adequate for conditions. The concrete slab is to be depressed 2 ¼" plus the thickness of the flooring specified.
C. Provide all labor, equipment and materials to finish and completely install the Interflex floor system as called for in the drawings.

D. The wood flooring shall not be installed until all masonry, plastering, tile, marble, and terrazzo work is completed and overhead mechanical trades and painters have finished in wood floor area. The building must be reasonably dry; all openings must be closed in; permanent heating and air conditioning installed and working before, during and after installation.

E. The concrete slab shall be dry, free of foreign materials, and turned over to the wood flooring contractor broom clean. Moderate room temperature of 65° or more shall be maintained a week preceding and throughout the duration of the work. Humidity conditions within the building shall approximate humidity conditions which will prevail when the building is occupied. If prior experience indicates relative humidity during sustained heating periods will fall below 35%, building engineering shall provide for facilities to introduce moisture into the area when required. Conversely, if relative humidity increases to 50% or higher, measures should be taken to dry the building. This may require turning on the heat.

F. Anderson Courts and Sports Surfaces, Inc. warrants the material it ships to be free from defects in material and workmanship for a period of one (1) year and the flooring installer warrants the installation of the flooring to be free of defects in material and workmanship for a period of one (1) year. The exclusive remedy under this warranty shall be replacement of defective materials supplied by Anderson Courts and Sports Surfaces, Inc., or correction of defective installation by the flooring installer. All implied warranties of merchantability or fitness for intended use are limited to the period of this warranty. This warranty excludes consequential damages.

G. This warranty does not cover damage caused by fire, winds, floods, chemicals or other abuse or by failure of other contractors to adhere to specifications, or neglect of reasonable precaution to provide ventilation during hot and humid weather. This warranty also excludes damage due to excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall or any other source. This warranty also excludes damage to the floors due to ordinary wear and tear faulty construction of the building (other than the floor installation), separation of the concrete slab underlying the floors, settlement of walls or use of water on floors.

H. Hardwood

1. Flooring shall be northern hard maple standard strip MFMA stamped and graded flooring 25/32" x 2- ¼" (1- ½") or 33/32" x 2- ¼" (1- ½").
2. Grades available are MFMA 1st or 2nd and better.

I. Subfloor

1. Vapor barrier shall be 6-mil polyethylene.( optional )
2. The pads shall be ¾" AirTech IV (WSF accredited).
3. Subfloor lumber shall be 1" x 6" 2nd and better gym grade spruce, fir or pine S2S to ¾" x 6" x random length and ¾" 4/5 ply fir plywood.
4. Subfloor fasteners shall be 1 ½" nails or staples.
5. Flooring fasteners shall be 1- ½" barbed cleats or 15 ga. coated stapled.

J. Inspect concrete slab for proper tolerance and dryness reporting any discrepancies in writing to the general contractor.

K. All work required to put the concrete slab in acceptable condition shall be the responsibility of the general contractor. The slab shall be turned over broom cleaned to the flooring contractor

L. Installation

1. Cover concrete slab with poly lapping edges 6".
2. Place the first layer of 1" x 6" subfloor lumber perpendicular to the headwall, starting from center line and laying at 16" o.c., with pads attached forming a diamond pattern within the court. Extend to walls, leaving ½" space to nearest obstruction.
3. Place the top layer of fir plywood 90° to the first pine layer starting at the head wall with 1/4" spacing between each sheet, breaking ends of second layer on bottom layer. Nail or staple with 1- ½" subfloor fasteners at each intersection. Leave ½" space to nearest obstruction.
4. Machine nail strip flooring into top layer of subfloor lumber. End joints must be properly driven up and proper spacing provided for the humidity conditions of the area as recommended by Anderson Courts installation crew.
5. Allow 3/8", unfilled, nick at perimeter to floor junction. and intermediate expansion joints.
6. Flooring must be butted to walls and not run under walls to maintain proper expansion nick.

M. Floor Sanding
1. Use coarse, medium and fine grit sandpaper.
2. After sanding with drum sander, buff entire floor using 100 grit screenback or equal grit sandpaper, with a heavy - duty buffing machine.
3. Vacuum of tack floor before first coat of seal.
4. Floor shall present a smooth surface without drum stop marks, gouges, streaks or shiners.

N. Finishing
1. Inspect entire area of floor to ensure that the surface is acceptable for finishing, completely free from sanding dust and perfectly clean.
2. Apply seal and finish per manufacturer's instructions.
3. Screenback or steel wool and vacuum or tack between each coat after it dries.
4. Apply game lines accurately after the seal coat(s), after buffing and vacuuming. Lay out in accordance to drawings. For game lines use current rules of association having jurisdiction. Lines shall be straight with sharp edges. Color shall be red. Game line paint shall be compatible with finish.

2.4 Glass for Racquetball and Squash

A. Provide all labor, equipment and materials to furnish and completely install the glass walls, glass doors and court windows including glass and hardware where called for in the drawings.

B. All system component parts must be supplied by Ellis Pearson Glass Wall Systems as represented by Anderson Courts and Sports Surfaces, Inc. of Buffalo, New York.

C. All items of work specified herein shall be performed by Anderson Courts and Sports Surfaces, Inc. to assure undivided responsibility. The glass wall manufacturer shall be responsible for all items required to provide a complete system.

D. Warranty
1. Anderson Courts and Sports Surfaces, Inc. warrants that the glass walls it ships shall be structurally sound and free from defects in material and workmanship under normal use and service for a period of five (5) years and Anderson Courts and Sports Surfaces, Inc. warrants the installation of the glass walls to be free of defects in material and workmanship for a period of one (1)

year. The exclusive remedy under this warranty shall be replacement of defective materials supplied by Anderson Courts and Sports Surfaces, Inc. or correction of defective installation. All implied warranties of merchantability or fitness for intended use are limited to the period of this warranty. This warranty excludes consequential damages.

2. This warranty does not cover damage caused by fire, winds, floods, chemicals or other abuse or by failure of other contractors to adhere to specifications, or neglect of reasonable precaution to provide protection of glass wall systems. This warranty also excludes damage to the glass wall systems due to ordinary wear and tear, faulty construction of the building (other than the glass wall installation), separation of the concrete slab underlying the glass walls, or settlement of walls at points of attachment.

E. Glass

1. Glass shall be ½" clear float tempered with all exposed edges polished conforming to federal specifications, ANSI - Z97.1; CPSC 16 CFR 1201; ASTM C1048.

2. All hardware for glass-to-glass connections shall be Hi-Tensile white and clear material with tensile strength of a minimum of 9,000 PSI and a durometer hardness of D80-90 (black nylon also available). Metal fittings mounted on glass will not be acceptable.

3. Door shall be latched by means of a positive latching system with knob set on the exterior and flush pull ring on the interior. Latch housing to be white powder coated finish. Strike and door stops must fasten to adjacent glass and stabilizer or post. Optional keyed locks are available.

4. Doors shall be 7'-0" tall. Doors shall have 2 hinges only, middle hinge not acceptable. Hinges shall be Ellis Pearson side hinges which must return onto adjacent fin or post. Side hinging to adjacent glass only will not be acceptable.

5. Perimeter channels - clear anodized aluminum.

6. Fin brackets shall be aluminum. Flush mount clear anodized aluminum cover plates are available.

7. Joint sealant - G.E. 1200 clear or equal.

8. Glass marking - All rear walls are to have permanent white lines 1" on center for 24" in height with a thickness of approximately 1/8". All sidewall glass to have single dot pattern applied in color specified by the architect or client.

## Part 3 - Execution

3.1 Inspection

A. Inspect framing and substrates for proper tolerances reporting any discrepancies in writing to general contractor.

B. All work required to put the framing or substrates in acceptable condition shall be the responsibility of the general contractor.

C. The area shall be turned over broom clean to the panel installer.

3.2 Installation

A. By General Contractor -Erect framing (if specified) per plans, shop drawings and specifications. Dimensions, attachments and vapor barrier requirements are critical.

B. By General Contractor - Insulate and substrate (plywood or drywall) as required.

C. By General Contractor - Light fixtures

D. By Court Contractor - Apply panels and door units per manufacturer's instructions and drawings using H-spline and construction adhesive at each stud.

E. By Court Contractor - View panels, glass walls, floors and accessories (if specified) shall be installed per manufacturer's specifications.

3.3 Clean - up

A. Clean up all unused material and debris and remove from premises. Wipe down walls and ceilings as required.

B. Protection of erected walls and final cleaning is by others.

3.4 Maintenance

A. Upon completion of panel installation, the owners, attendants or individuals in charge and responsible for upkeep of the building are to see that the care and maintenance instructions of Anderson Courts are followed. Failure to do so may void warranty.