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**SECTION 09000 — FINISHES**

**PART 1 – GENERAL**  
**1.01 EXTENT OF SECTION**

- A. This section contains the requirements relating to finishes. This generally includes lath and plaster (interior and exterior), gypsum board, tile, acoustical treatment, ceiling surfaces, flooring, carpet, paint, and wall coverings.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

**PART 2 – MATERIALS**

**2.01 WALL FINISHES**

**A. GENERAL**

- 1. INTERIOR WALL FINISH: Paint over high-impact gypsum wallboard (GWB) to 48-inches AFF or higher is the standard interior wall finish for corridors, classrooms, and other high-use areas, where painted masonry wall construction is not used. Veneer plaster over standard GWB or metal lath, or skim-coat plaster over gypsum board backing may be used under special circumstances. Texture of plaster veneer shall be smooth or match existing. Include corner bead in all cases, whether plaster is used or not.
- 2. STUCCO/ CEMENT PLASTER shall not be used for walls; however, if its use is unavoidable, it shall be coated with an elastomeric coating, such as “V.I.P.”.

**B. GYPSUM BOARD**

- 1. Semi- Gloss paint over 5/8-inch Type X gypsum board is the standard interior wall finish for areas other than corridors, classrooms, and high-use zones.
- 2. Texture shall be smooth or match existing.
- 3. The gypsum board shall be primed with minimum of one coat of a high quality latex primer or acceptable equal material manufactured especially for the priming gypsum board.
- 4. Control joints shall be designed into the interior elevation as required by the industry standard.
- 5. Prefer gypsum boards to run horizontally.
- 6. FINISHING REQUIREMENTS: Gypsum walls shall typically receive a Level 4 finish in all classrooms and corridors. A Level 5 finish shall be provided in areas where a high quality finish and/or critical lighting areas are required, such as the CCTV studio or Auditorium. All other areas shall receive finishing levels as indicated below. The building service spaces shall receive the following finish grade level requirements, as based on Gypsum Association, Publication GA-214:
  - Level 1 Finish – Plenum areas above ceilings and attic spaces.
  - Level 2 Finish – Garages, Warehouse Storage, and Closets.
  - Level 3 Finish – Mechanical Rooms, Electrical Rooms, Telecommunications



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Rooms, and Custodial Rooms.

- Level 4 Finish – Offices, Conference Rooms, Atriums, Dining Room.
- Level 5 finish – Laboratory, Clinics, and Auditoriums.

**C. PORCELAIN CERAMIC TILE:**

1. **GENERAL:** Follow the manufacturers' recommended installation instructions, including the application of any recommended floor finish or sealer. Do not install over existing ceramic tile or VCT.
2. Portland cement grout with a latex additive shall be sealed and used in all areas; except, epoxy grout shall be used in all wet areas.
3. Choose colors from Grade 1, 2 or 3 price levels.
4. Ceramic tile base shall have a sanitary cover where wall tile occurs and a bull-nose (round top) where no wall tile occurs.
5. Wall tile and base tile shall be thin set.
6. Provide 2 boxes of wall tile overstock.
7. Provide 5 linear feet of base and cap tile overstock.
8. **RECOMMENDED LOCATIONS:**
  - a. At the wet walls in Staff and Student Toilet Rooms to full height;
  - b. At custodial mop sinks (to a min. 6-ft. AFF height);
  - c. In all shower wet walls, full height;
  - d. On walls to full height in Group Restrooms, as indicate on Design and Construction Documents;
  - e. In Kitchens to a height of 4-ft. (height to coordinate with installed kitchen equipment). Metal stud walls covered in ceramic tile shall be backed with fiber reinforced cement board to a height of 4-ft.
  - f. Apply tile over:
    - 2 layers moisture resistant (MR) wallboards in stall or individual interior toilet rooms;
    - 2 layers 5/8-inch tile backer boards waterproofed in individual toilet rooms that include showers;
    - 2 layers of 5/8-inch tile backer board at tile locations in lieu of MR board in group toilet rooms.

**2.02 CEILING FINISHES**

- A. Ceilings in individual and group toilet rooms shall be continuous, impervious and hard surfaces.
- B. Provide as a minimum, 1 layer 5/8-inch moisture resistant (MR) board in Mechanical Rooms, Shower and Locker Rooms, Electrical Rooms, and Group Toilets.
- C. **SUSPENDED CEILING TILE:**
  1. Ceiling tile grid installation shall have support wiring at 4-ft. on center on main support runners and within 3-inches of each corner of each drop-in light fixture. Layout ceiling tiles to avoid perimeter units of less than half unit width.



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2. Install all ceiling grid wall angles with a continuous caulking bead at wall angle and wall before and after installation.
3. Install moisture resistant ceiling tiles in areas subject to moisture.
4. Specialty acoustic ceiling tiles may need to be specified in CCTV or Music rooms to achieve a minimum NRC rating of .90. Kitchens and food prep areas to receive a washable, non-perforated, vinyl faced panel.
5. Provide ten percent, of each tile type, for excess materials, to be turned over to owner at substantial completion.
6. Replacement Tiles: The standard replacement tiles are Armstrong “Cortega” Fireguard, U.S.G., or Celotex.
7. General Utilitarian Areas, including classrooms and Laboratories:
  - a. 2-ft. by 2-ft. by  $\frac{5}{8}$ -inch, square edge, white, non-directional-fissured pattern, fire- rated: Armstrong Fireguard “Cortega”; U.S.G or Celotex.
  - b. 2-ft. by 2-ft. by  $\frac{5}{8}$ -inch, square edge, white, lay-in type: Armstrong “Dune”.
  - c. 2-ft. by 2-ft. by  $\frac{3}{4}$ -inch, square edge, white, lay-in type: Armstrong “Ultima”.
8. Areas subject to high moisture conditions, need “wipe down” cleaning capacity, or to control dust, use Moisture Resistant Ceiling Tile with clear plastic coating or non-warp panels:
  - a. Moisture Resistant: Armstrong #605 Plain Ceramaguard, 24-inches by 48-inches by  $\frac{5}{8}$ -inch thick, white vinyl plastic paint over ceramic and mineral fiber composite, square cut lay-in, RH100 performance.
9. Administrative and Upgraded Public Areas:
  - a. 2-ft. by 2-ft. by  $\frac{5}{8}$ -inch, tegular edge, non-directional, white, fire-rated: Armstrong “Cortega” Fireguard; U.S.G or Celotex.
  - b. Alternate selections: Armstrong “Cirrus” Fireguard, Angled Tegular Edge, U.S.G or Celotex.
  - c. 2-ft. by 2-ft. by  $\frac{5}{8}$ -inch, tegular edge, white: Armstrong “Dune”.
  - d. 2-ft. by 2-ft. by  $\frac{3}{4}$ -inch, tegular edge, white: Armstrong “Ultima”.
10. Armstrong “Ultima” is not acceptable when attempting to achieve a required fire rating in a building with no fire sprinklers.
11. GRID TYPE:
  - a. Suspended grid shall be 2-ft. by 2-ft. heavy duty, with white exposed tee,  $\frac{15}{16}$ -inch wide, fire-rated, meet or exceeds Armstrong product.
  - b. FIRE RATED SYSTEM: Where a fire rating is required, use the above system with hold- down clips.

**2.03 ACOUSTICS**

- A. GENERAL: Appropriate acoustical environments shall be created for the control or augmentation of the respective sound fields, to both support learning and assure applicable noise control. As a minimum, all spaces shall comply with ANSI S12.60 latest edition.
- B. Large spaces, including media centers, cafeteria dining spaces, music rooms, multi-purpose rooms, CCTV Labs and gymnasiums shall have acoustic wall panels (7'-2" AFF



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min.) and/or special acoustic ceiling treatments (acoustic wall panels or acoustical ceiling diffuser panels) to achieve acceptable NRC and reverberation times. All acoustical panels shall be mounted with concealed panel attachments. "*Acoustical Performance Criteria, Design Requirements and Guidelines for Schools.*"

1. Single or composite walls, floor-ceiling and roof-ceiling assemblies shall provide specific sound transmission class (STC) ratings when separating a core learning space from an adjacent space. Specific Requirements are listed below are minimum ratings, include but not limited to (see ANSI/ASA S12.60 Part 1):
  - a. **≤ STC-30** minimum or more walls with doors and windows:
    - 1) If walls containing doors between a core learning space and corridors or stairwells, and the minimum STC ratings apply to the wall exclusive of the door.
    - 2) For walls containing doors between a core learning space and an office, a conference room, or toilets that open only to the core learning space, the minimum STC apply to the wall exclusive of the door.
    - 3) Entry Doors across a corridor shall be staggered to minimize noise transmission.
    - 4) In all other cases, the STC rating applies to the composite construction including the effects of doors, windows, penetrations, etc.
  - b. **≤ STC-40**
    - 1) Music Room Doors
    - 2) Vestibule entry composed of two sets of doors within 30-ft. of the core learning space with STC rating of 30 shall be considered to conform to STC 40 requirement, (see ANSI/ASA S12.60 Part 1 section 5.4.2.4),
  - c. **≤ STC-45**
    - 1) Corridor, staircase, office, or conference room or
  - d. **≤ STC-50 (when the space requires privacy).**
    - 1) If the adjacent space is another core learning space, speech clinic, healthcare rooms or offices.
    - 2) Offices for: Principal, Assistant Principal, Dean, Guidance Counselor, and Conference Rooms.
    - 3) It shall be the responsibility of the Owner and/or PCPS Permitting Authority, to determine if and when an office or conference room needs to have a high degree of acoustical privacy. If so, then the STC rating between these specifically designated spaces and adjacent spaces shall be at least 50.
  - e. **≤ STC-53**
    - 1) If the adjacent space is a public use toilet rooms and common use spaces.
  - f. **≤ STC-60**
    - 1) If the adjacent space is a music room, music performance space, Auditorium, mechanical equipment room, cafeteria, gymnasium or indoor swimming pool.
2. Note: Open-plan classroom designs shall not meet the requirements of this standard.
3. Utilize sound control doors (with appropriate hardware) and windows to block interior and exterior noise, where applicable. Also refer to section 08100.



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**2.04 PAINT**

- A. GENERAL: Painting includes but is not limited to field painting of exposed bare and covered pipes and ducts (including color coding), and of hangers, exposed steel and iron work and primed metal surfaces of mechanical and electrical equipment, exposed conduit, exposed flashing and sheet metal.
- B. Painting is not required on pre-finished items, finished metal surfaces, concealed surfaces, operating parts, and labels.
- C. Surfaces and finishes shall be provided in consideration of the use and the cleaning and maintenance cycles and materials to which they shall be subjected.
  - 1. WALLS AND CEILINGS:
    - a. Drywall and Plaster/Stucco
      - 1) First coat- Acrylic primer
      - 2) Finish coats- Acrylic Water Based Epoxy semi-Gloss.
      - 3) Locations: all other spaces
    - b. Concrete and Concrete Block
      - 1) Heavy duty Acrylic Block filler.
      - 2) Finish coats- Acrylic Water Based Epoxy semi-Gloss.
      - 3) Locations: Shower/ Locker Rooms, Kitchens, Toilet Rooms, and areas requiring high washability.
  - 2. FLOORS:
    - a. Concrete
      - 1) Heavy duty Acrylic Block filler.
      - 2) Finish coats- Acrylic Water Based Epoxy semi-Gloss, Grey.
      - 3) Locations: Mechanical, Electrical, Data, and Custodial Rooms.
- D. Architectural paints and coatings applied to interior walls and ceilings must not exceed the volatile organic compound (VOC) content limits established in Green Seal Standard GS-11, Paints, per latest edition.
- E. Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates must not exceed the VOC content limit of 250 g/L established in Green Seal Standard GS- 03, Anti-Corrosive Paints, per latest edition.
- F. CCTV Studio wall paint shall be Chroma Key Green or Blue.

**2.05 WALL COVERINGS**

- A. REQUIREMENTS:
  - 1. Durasand is prohibited and shall not be specified.
  - 2. Fiber Reinforced Plastic (FRP) shall be utilized in utility spaces requiring a high degree of sanitation for replacement only in existing buildings.
  - 3. Provide marble window sills at all openings. Install in single continuous piece, with mastic, then caulk perimeter.



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**2.06 FLOORING**

**A. GENERAL:**

1. Sustainable Materials: All flooring installed in building interiors shall meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus Program. All flooring adhesives utilized shall meet the VOC limit of 50g/L, per South Coast Air Quality Management district (SCAQMD) Rule #1168. It is preferable to specify flooring made of recycled material and recyclable.
2. Concrete, wood, and sealers, stain and finish must meet the requirements of South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, per the latest edition.
3. Tile setting adhesives and grout must meet SCAQMD Rule 1168. VOC limits correspond to the latest edition, including amendments.
4. Aerosol adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36 requirements per the latest edition.
5. Prep sub-floor
6. FLOOR FINISH LOCATIONS:
  - a. Carpet Tile – Administrative, Guidance, CCTV Studio, Media spaces and selected ESE Classrooms, Resource Rooms, and Vocational Labs shall have carpet tile installed.
  - b. Porcelain Ceramic Tile – General Administrative Reception, - Registration/Attendance Office, Restrooms, Locker Rooms, and Showers shall receive porcelain tile on the floors.
  - c. Quarry Tile – The Kitchen and other utility spaces requiring a high degree of sanitation shall receive quarry tile for the floors and sanitary base.
  - d. Wood Flooring – Gymnasiums, Stages, Dance Rooms, see also SECTION 09640.
  - e. Indoor Athletic Surfacing – Provide as indicated on Design and Construction Documents.
  - f. Resilient Flooring – General Spaces, including classrooms, corridors, cafeterias.
  - g. Interlocking Rubber Flooring – Weight Rooms.
  - h. Sealed Concrete Floors – Mechanical Rooms and other rooms as specified.
  - i. Rubber stair treads, rubber stringers, rubber risers. – Interior concrete stairs.
7. Utilize carpet tiles in lieu of broadloom carpet in spaces where carpet is required.
8. Finish flooring shall be extended fully under all built-in casework.
9. Floor bases: Provide rubber base in all general spaces. Include base around all millwork and casework units. Install no base pieces less than 12-inches long. Use roll goods not 48-inches strips. Provide a minimum of 40 linear ft. of overstock base.
10. Provide Shower Pans, do not use cleave membrane as waterproofing.

**B. CARPET:**

1. The carpet fiber shall be high quality nylon, no olefin fibers, multi-color yarn, meet ADA requirements and be recycled, either by the manufacturer or by some other company specializing in such. The carpet backing shall be impervious to liquids.
2. **Installation:** Use glue-down method of installation utilizing a non-asbestos containing adhesive. Carpet adhesives shall be of low odor/solvent content
3. **Anti-Static Control:**



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- a. The carpet anti-static control shall be permanent. Anti-static topical coatings are not acceptable.
  - b. The maximum acceptable static build-up when tested in compliance with test standards AATCC-134 shall be maximum 3.5 kilovolts at 70° F. and 20% relative humidity.
  4. **Flammability:**
    - a. Radiant Panel Test (ASTM E-648-78) average results shall exceed 0.22 Watts/cm<sup>2</sup>.
    - b. Methenamine Pill Test shall have been performed on both carpet surfaces (top pile face and under or backside) and be in compliance with ASTM D-2859-76 (or DOC-FF-1-70).
  5. **Labeling:**
    - a. A label meeting the Federal Labeling requirements, as stated in the textile Products Identification Act under the Federal Trade Commission, shall be attached to the carpet.
    - b. The manufacturer is required to put all information as to the country of origin, fiber content, manufacturer's name or RN number on a label or tag attached to a conspicuous place on the outside of the carpet.
    - c. Where carpet abuts ceramic or quarry tile, provide ½-inch by ½-inch by ⅛-inch zinc L-Angle edge strip. Provide metal or vinyl transition strips at all other flooring material changes.
    - d. Provide carpet manufacturer's warranty for ten (10) years.
    - e. Provide excess material of 2 percent overrun stock.
- C. **RESILIENT FLOORING:**
1. Layout all rooms so that the field centers on room and so that cut tiles at walls are no less than a half of tile width.
  2. Install 1-inch feature transition strips centered under doors, at all locations where two adjoin rooms receive vinyl composition tile.
  3. Areas with resilient flooring shall receive rubber cove base.
  4. Provide 10 full boxes of overstock.
- D. **RUBBER STAIR TREADS, STRINGERS:**
1. Interior stairs shall receive rubber nosing and treads, rubber risers, and rubber stringers. Stair landings shall receive resilient flooring.
- E. **QUARRY TILE:**
1. Follow the manufacturers' recommended installation instructions, including the application of any recommended floor finish or sealer.
  2. Do not install over existing ceramic tile or VCT. Nominal size is 6-inches by 6-inches by ½-inch thick.
  3. Non-slip finishes shall be used for all corridors, routes and ramps.
  4. Recess floor slabs receiving quarry tile, shall be for the depth of the tile and setting bed. Slab shall be level at access points and slope ⅛-inch maximum to floor drains.





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**F. PORCELAIN CERAMIC TILE:**

1. **GENERAL:** Follow the manufacturers' recommended installation instructions, including the application of any recommended floor finish or sealer.
2. Do not install over existing ceramic tile or VCT.
3. Portland cement grout with a latex additive shall be sealed and used in all areas; except, epoxy grout shall be used in all wet areas.
4. Choose colors from Grade 1, 2 or 3 price levels.
5. Ceramic tile base shall have a sanitary cover where wall tile occurs and a bull-nose (round top) where no wall tile occurs.
6. All floor tiles to be mud set tile, except in single toilet rooms, ceramic tile pavers, and caps on low walls shall be thin set.
7. Provide a half box of overstock floor tile.

**G. SEALED CONCRETE FLOORS:**

1. Use rubber cove wall bases at interior sealed concrete floors.
2. Sealed concrete floors are not to be used as an impervious surface.

**H. INDOOR ATHLETIC SURACING:**

1. Provide complete installation of the flooring system, including the interlocking suspended synthetic (polypropylene high impact copolymer of proprietary formulation) modular tile system with the supportive acoustical underlayment and application of game lines.
2. The system shall have a minimum 10-year limited warranty by the manufacturer.

**I INTERLOCKING RUBBER FLOORING:**

1. Interlocking rubber flooring shall be laid loose over sealed concrete floors.
2. Flooring shall be 24-inches by 24-inches by  $\frac{9}{16}$ -inch interlocking pieces with invisible seams extending from wall to wall.
3. Adhesives shall not be used for installation.

**J. GYMNASIUM WOOD FLOORING (see SECTION 09640)**

**PART 3 – STORAGE AND MAINTENANCE**

**3.01 DELIVERY, STORAGE, AND HANDLING**

- A. **PACKING AND SHIPPING:** Have materials shipped in manufacturer's original packages showing manufacturer's name and product brand name.
- B. **STORAGE AND PROTECTION:** Store materials inside and protected from damage by the elements. Protect ends, edges, and faces of gypsum veneer base from damage. Protect metal framing and accessories from bending. Protect installation from damage and deterioration until the date of Substantial Completion.
- C. **ENVIRONMENTAL REQUIREMENTS:** Finishes shall not be loaded or installed prior to conditioning of the building.

END OF SECTION



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**SECTION 09640 — WOOD FLOORING**

**PART 1 – GENERAL**

**1.01 EXTENT OF SECTION**

- A. This section contains the requirements relating gymnasium, dance, and auditorium stage floor systems.
- B. The intent of the PCSB STANDARDS is for the DESIGN PROFESSIONAL (DP) to comply with the minimum general project requirements and the specific project specifications shall be generated and provided by the DP.

**1.02 QUALITY ASSURANCE**

- A. Installer Qualifications: Specialized wood flooring firm with not less than three (3) years successful experience in installation of flooring types specified.
- B. General Standard: Comply with recommendations of "Maple Flooring Manufacturers Association" (MFMA) for grading, installation and finishing.
- C. Source Quality Control: Obtain flooring of each type from single manufacturer or source, to ensure match of quality, color, pattern and texture.

**1.03 SPECIAL PROJECT WARRANTY**

- A. Submit 3-year warranty signed by manufacturer, installer, and CONTRACTOR, agreeing to repair or replace wood flooring which shrinks, warps, cracks, or otherwise deteriorates excessively, or which breaks its anchorage or bond with substrate or otherwise fails to perform as required, due to failures of materials and/or workmanship. This warranty is to include complications with finish and striping.

**PART 2 – PRODUCTS**

**2.01 WOOD STRIP FLOORING SYSTEM (Free Floating Resilient Sleeper Subfloor System)**

- A. SPECIES, GRADE AND CUT: provide hard maple wood wherever strip type flooring is indicated. Gymnasium, Auditorium, Dance and stage floor, etc.
  - 1. Grade: #1, Clear.
  - 2. Cut: Plain sawn.
  - 3. Matching: Tongued-and-grooved and end-matched.
  - 4. Back Channeling: provide manufacturer's standard channeling on back face of each strip.
- B. Thickness:  $\frac{25}{32}$ -inch
- C. Face Width: 2 $\frac{1}{4}$ -inches
- D. Lengths: provide standard random length strips, complying with applicable grading rules.



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- E. Seasoning: manufacture wood strip flooring from kiln-dried lumber.
- F. Manufacturer: subject to compliance with requirements, provide wood strip flooring of one of the following:
  - 1. Connor/AGA - Dura Cushion III System,
  - 2. Robbins, Inc. - Permachushion Sleeper-Subfloor System,
  - 3. Superior - Super-Cush II System.

**2.02 ACCESSORY MATERIALS FOR WOOD FLOORING SYSTEM**

- A. Membrane: 10 mil polyethylene.
- B. Adhesive/Mastic: polyvinyl acetate or special mastic of type recommended by manufacturer of flooring, and complying with flammability and environmental control restrictions.
- C. Resilient Pads:  $\frac{3}{8}$ -inch x 2  $\frac{1}{4}$ -inch x 3-inches resilient material.
- D. Sleepers: 2-inches x 3-inches x 4-ft. surfaced to uniform thickness Eastern Hemlock or Northern Pine, kiln dried, treated with 'Wood Life' with 4 resilient pads (1-ft. o.c. max.) properly stapled to bottom side.
- E. Sub-Floor:  $\frac{1}{2}$ -inch exterior C/D plywood, 4-ft. x 8-ft. sheets.
- F. Nails: 2-inches barbed cleat or equivalent for strip flooring. 1 $\frac{1}{2}$ -inches Subflooring nails or approved staples.

**2.03 STAGE FRONT TRIM**

- A. Solid stock matching species, round edge floor nosing, wide board square edge face trim.

**2.04 PERIMETER BASE**

- A. "Vent-Cove Rubber Base", 3-inches horizontal and 4-inches high x 4-ft. long angle shape with cove and bullnosed edges. Furnish matching outside corners. Vertical leg to have air vent slots.
  - 1. Use manufacturer's standard adhesive product for adhering perimeter base to wall.

**2.05 VAPOR BARRIER**

- A. Polyethylene film, in rolls, minimum 0.0010-inch thickness.

**2.06 WOOD FLOOR FINISH MATERIALS**

- A. MODIFIED OIL BASED FINISH
  - 1. Sealer shall be equal to BonaKemi Pacific Sport sealer.



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2. Products for finishing shall be on the current MFMA floor finish list #10. Material referenced herein is that of “Bona Sport All Court Polyurethane Finish”, BonaKemi USA, Inc. Provide material for a **four (4) coat system**.
3. Stain shall be equal to Minwax Dura Seal Penetrating Wood Finish, color as selected. Submit sample for approval prior to start of finish work in areas scheduled to receive stain.

## **PART 3 – EXECUTION**

### **3.01 INSTALLATION**

- A. General: comply with flooring manufacturer's instruction and recommendations, but not less than recommended by MFMA, as applicable to type flooring required.
- B. Clean slab thoroughly, then install polyethylene with joints lapped a minimum of 4-inches and cemented with cold asphalt.
- C. Install cushioned sleepers end to end across the room with joints staggered a minimum of 24-inches. Space sleeper rows as 3.01 C1 in gymnasium and 12-inches o.c. elsewhere. Maintain a minimum of 2-inches expansion room at walls and other obstructions. Care must be taken to see that all pads bear on concrete subfloor, filling or grinding concrete slab as necessary to create this condition. Install a minimum of two rows of sleepers adjacent to each other, centered under each roller position of telescoping bleachers in the gymnasium, in their extended position. Carefully coordinate this with bleacher shop drawings. These sleepers are in addition to the regular sleepers.
  1. Optional Installation of Cushioned Sleepers: Sleepers at Gymnasium shall be installed in either of the two manners described below:
    - a. Space sleeper rows at 12-inches o.c. across the entire Gymnasium floor. Additional double rows of sleepers shall be installed under all areas where bleacher rollers travel and park, or;
    - b. Install sleepers at 9-inches o.c. across the entire Gymnasium.
- D. PLYWOOD SUBFLOOR: Install at right angles to sleepers, spacing all edges ¼-inch and staggering end joints of sheets 4-ft. Attach with approved fasteners at 12-inches o.c.
- E. WOOD STRIP FLOORING INSTALLATION.
  1. Blind nail flooring to substrate in accordance with MFMA recommendations, with approved nails designed for hardwood strip flooring. Stagger end joints of strips from board to board, with no less than 2-inches stagger. Drive board together side to side and end to end with proper tightness for humidity conditions expected in the floor's finished environment.
  2. Expansion Space: provide expansion space at walls and other obstructions and terminations of flooring, not less than 2-inches unless otherwise indicated on drawings. Install space intermediate expansion joints in field of floors as recommended by flooring manufacturer to suit anticipated humidity conditions.



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3. Pattern: strip flooring is to be installed with strips running parallel to stage front, in north-south alignment in gymnasium and east-west direction in gymnastics. Start at stage front and work to back wall.

**3.02 FLOOR FINISH PREPARATION**

- A. Floor shall be machine sanded after all other trades are completed. Perform a minimum of three (3) cuts, using coarse, medium and fine sandpapers, ending with 100 grit paper and 150 grit screen. The final sanding should provide a smooth and even surface, free from scratches. After sanding, thoroughly vacuum floor with heavy duty commercial type vacuum to remove all loose particles prior to application of sealer. Cover sanded floor with non-staining building paper to provide access for application of first finish coat. Typical finish is to be a **four (4) coat system**.

**3.03 STAGE FLOOR FINISH**

- A. In lieu of standard clear sealer, apply one or more coats of stain to achieve appropriate level of tint to match approved sample.
- B. After acceptance of stain application, coat floor with a final application of clear satin (low sheen) finish.
  1. Apply as follows: Two (2) Coats of finish if only one,  
One (1) Coat of stain is applied to achieve a full three,  
Three (3) Coat finish.

**3.04 GYMNASIUM FLOOR FINISH**

- A. **SEALING:** apply one (1) coat of BonaKemi Pacific Sport Sealer. Using a clean applicator, apply a liberal and uniform coat with a minimum coverage of approximately 500 sq. ft. per gallon. Allow to dry thoroughly, using a moisture meter to check dryness. When dry, buff with a green abrasive pad to prepare surface for game lines, borders, etc.
- B. **FINISHING:** immediately before applying first coat of finish, floors are to be thoroughly tack ragged, paying close attention to edges and corners. With a clean applicator, apply an even coat of Pacific Sport Finish (approximately 500 sq. ft. per gallon). Allow to dry thoroughly. Screen with 120 or 150 grit screen to smooth the surface for bonding of each coat for a total of three coats. Vacuum, double tack rag and apply final coat of finish material (approximately 500 sq. ft. per gallon). **Allow to dry overnight before subjecting to light traffic. The floor should be used with extreme care for the first week, closely monitoring traffic to prevent damage.**
  1. During finishing and drying time, floor must be free of dust and dirt. Avoid air currents that carry dust and dirt. Temperature of room and materials should be approximately 65 degrees F. or above during treatment. Allow adequate ventilation for proper curing.
- C. **Game Lines, Borders and Logos:** apply after sealer and before succeeding coat(s). Layout in accordance with drawings and current rules of National Federation of State High School Association (NFSHA). Lines shall be straight with sharp edges of colors as selected.



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Prepare lines by masking with a precision taping machine or striping tool. When using masking tape, tape shall be pulled as soon as the paint starts to dry or set. Apply as many coats as necessary to create a uniform and solid opaque line, but no less than two (2) coats. After game markings have dried thoroughly, lightly abrade lines with a green abrasive pad and clean floor surface (do not use steel wool). Submit layout to PROJECT COORDINATOR for approval.

1. Refer to drawings for special marking requirements of volley ball and cross court markings. Note requirement of wide painted borders for main basketball court and solid painted keys. Provide in each end border profiled name of school or team as instructed. Provide lettering around center court circle for school initials/or team name. Provide for two logos to be painted on court as instructed, approximately 8-ft. x 8-ft. size.
  - a. The painted border at each end of main Basketball Court is to be 4-ft.. The side borders are 4-ft. wide. A 2-inches wide court line is to be separated from the wide border by a 1-inch wide masked line of the natural floor finish. The game line is considered a part of the designated border width.
  - b. DP will instruct and provide a layout for a team/ school name to be featured in each end court 4-ft. painted border. Letters will be 3-ft. high, have a 6-inches stroke width, painted a contrasting color and be separated from border as above. Submit to PROJECT COORDINATOR for approval.
  - c. The painted game lines for the two cross court basketball courts are to be only corner and line intersection marks sufficient to identify the court layout and not continuous lines.
2. Corner and "T" intersections shall be 6-inches in length. Other single line marks shall be 6-inches in length and separated from other markings/borders to stand alone.

**3.05 DANCE STUDIO FLOOR FINISH**

- A. Refer to PARTS 3.04.A and 3.04.B this SECTION.

**3.06 BASE**

- A. Make certain base material has been conditioned to environment for an adequate period of time to stabilize material at atmospheric design conditions. Using specified adhesive, coat back of vertical leg, exercising care not to cover vent slots. Position base so that horizontal leg lies loosely over wood floor. Shove vertical leg against wall and hold in position until adhesive is adequately set to maintain permanent position, with all joints closed and neatly aligned. Coordinate base installation with thresholds and saddles.

**3.07 BUILT-IN ITEMS**

- A. All sleeves, electrical and communication boxes in wood floors are to be installed securely and neatly such that tops are flush with floor surface. No projections above floor or depressions will be allowed.
  1. Wherever possible, install devices after installation of wood floor, neatly sawcutting wood to match device with minimum gap left between device and wood. Then caulk joint neatly.



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2. Where devices must be installed prior to wood floor, carefully cut and fit wood flooring around device, leaving  $\pm \frac{1}{8}$ -inch gap which is to be caulked neatly. Provide solid blocking around device for wood floor and sub-floor to bear.

**3.08 PROTECTION**

- A. Protect completed wood flooring during remainder of construction period with heavy Kraft paper or other suitable covering, so that flooring and finish will be without damage or deterioration at time of acceptance. Repair and rework any damage to match adjacent finish and to satisfaction of DP and PROJECT COORDINATOR.

END OF SECTION