Jefferson County School District, R-1
Support Services

TECHNICAL GUIDELINES

DIVISION 09 – FINISHES

AUGUST 2022

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DIVISION 09 – FINISHES

09 20 00 Plaster and Gypsum Board – August 2019

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline.
- In the absence of other information, standards of the following organizations apply:
  1. Fire Resistance Ratings: Where fire resistance classifications are indicated, provide materials and application procedures identical to those listed by UL or tested according to ASTM E119 for type of construction shown.
  2. "Gypsum Construction Handbook" published by United States Gypsum (USG)
  3. Northwest Wall and Ceiling Bureau Stucco Resource Guide
  4. Applicable requirements of ASTM C754 for installation of steel framing shown elsewhere in these Guidelines
  5. Install gypsum board in accordance with applicable requirements and recommendations of Gypsum Association GA 216, "Recommended Specifications for the Application and Finishing of Gypsum Board" except for more stringent requirements of manufacturer.
- Submittals
  1. Product data:
     a. Required
     b. Specify and enforce exact requirements and tolerances
  2. Samples:
     a. Required
  3. Field Sample
     a. One field sample demonstrating construction and finish for each type of wall finish
        (1) 48 inches x 48 inches minimum size quality control sample panel
        (2) May be a section of the final installation
        (3) Used to evaluate all subsequent work
        (4) Panel to remain undisturbed until Final Acceptance of the project
  4. Closeout:
     a. Submittals listed above
        (1) Updated to record status
        (2) Samples excluded
     a. Record finish schedule including material and color designations
- Cement backer board is required in areas of plumbing or dampness and all horizontal applications with upward exposure (i.e. sills).
- Gypsum board restrictions
  1. Not recommended below 6 feet in common/public areas of Middle and High Schools.
  2. Limit wall applications to dry (no plumbing) areas.
  3. Prohibited for horizontal applications with upward exposure (i.e. sills)
  4. Plaster veneer ("skim coat") is prohibited over gypsum board
- Gypsum Board:
  1. Edge:
     a. Beveled preferred
     b. Rounded permitted
  2. Size:
     a. Largest available to eliminate or minimize horizontal joints.

   b. Review locations for the use of mold-resistant gypsum board with the District Project Manager. Recommended uses include the first four feet up from floor level.
3. Standard Gypsum Board: ASTM C1396 (Section 5), regular type
4. Mold-Resistant Gypsum Board: noncombustible, moisture- and mold-resistant gypsum core that is encased in moisture and mold resistant face paper and back paper.
   a. Use on first floors up to 4 ft above finish floor. Abuse resistant and/or Fire-rated where required. Set bottom off finish floor ½-inch.
   b. Consider the use of mold-resistant gypsum board at other locations when construction may be open to long periods of inclement weather.
5. Abuse-Resistant Gypsum Board: Abuse-resistant gypsum panels at corridors and other areas of high activity.
6. Fire-Rated Gypsum Panels: Fire-rated assemblies (Type- X)
7. Water-Resistant Gypsum Board

- Use of pre-pigmented plaster materials is not recommended.
  1. Preferred coloration is by acrylic additives in the mix of each coat
- Gypsum Board Quality Control
  1. Minimum thickness: 5/8-inch unless approved otherwise by the District Project Manager.
  2. J beads are required at all termination edges exposed to view.
  3. Expansion and control joints are mandatory per recommendations of the Gypsum Association.
  4. Acoustic sealant is required per recommendations of the Gypsum Association.
  5. Apply finish after inspection/acceptance of joint work.
  6. Detail "slip joint" at partition top, not base
  7. Minimum slip joint size at head shall be equal to maximum expected deflection of structure above.
  8. Finished and Occupied Areas: Level 4.
- Gypsum Board Details
  1. Trim:
     a. Galvanized
     b. Prefabricated
     c. Flanged
     d. Plastic not permitted
  2. Control Joints:
     a. 26 gauge (minimum) zinc prefabricated profile
  3. Joint Compound:
     a. No requirements
  4. Acoustical Sealant:
     a. High elasticity water based gun grade sealant compound for use with gypsum board
  5. Sound Attenuation Blankets:
     a. No requirements
- Plaster and Stucco Quality Control
  1. Corner beads are required at external corners.
  2. Casing beads are required at terminations
     a. Leave ¼ inch sealant pocket at exterior casing beads and interior joints.
     b. Interrupt lath at control joints

END SECTION 09 20 00

09 22 00 Supports for Plaster and Gypsum Board – August 2018

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline.
- Stud frame wall/partition construction in "wet" (plumbing) areas must be constructed and detailed to reduce the ability of moisture intrusion into the wall cavity and to keep moisture from reaching the base channel. Detail the gypsum board so the board edge is not resting on flooring substrate by keeping the edge off the floor substrate to the greatest extent possible.
- Extend partitions and framing to the underside of structure at:
  1. Secure areas (i.e. LMC, computer rooms, offices)
  2. Areas requiring acoustical separation.
  3. Classrooms
- Steel Studs
  1. 25 gauge minimum for interior applications
  2. 16 gauge minimum for 2-leaf door jamb applications
  3. 20 gauge double steel studs at door frames
- Maximum spacing of framing members:
  1. Walls, partitions = 16 inches o.c.
  2. Ceilings, soffits = 24 inches o.c. interior; 16 inches o.c. exterior.
- When required, locate expansion/contraction detail at top runner.
- Attach ceiling suspension systems to structural members only.
  1. Attachment of suspension systems to steel deck is prohibited.
- Concealed blocking: Continuous sheet metal attached to stud faces. Min. 20 gauge, but no less than gauge of studs.
  1. For use at markerboards, tackboards, and upper and lower casework only.

END SECTION 09 22 00

09 30 00 Tiling – August 2018

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline.
- In the absence of other information, standards of the following organizations apply:
  1. Current edition of the Handbook for Ceramic Tile Installation published by the Tile Council of America (TCA).
- Submittals
  1. Samples:
     a. Required
  2. Tile data including:
     a. Manufacturer
     b. Supplier
     c. Size
     d. Style
     e. Texture
     f. Color

3. Closeout:
    a. Submittals listed above
        (1) Updated to record status
            (a) Samples excluded
    b. Finish schedule including:
        (1) As-constructed record of material and color designations
4. Extra Materials:
    a. Provide 1 per cent of each material, color, style
    b. Minimum 5 square feet of flooring, base and preformed profiles of each material and each color and pattern

- Approved substrates:
    1. Concrete
    2. Masonry
    3. Plaster
    4. Cement backer board
    5. Gypsum board
- Quarry Tile
    1. Domestically manufactured products are preferred
        a. Use of imported materials is not recommended.
    2. Size:
        a. Square or rectangular
            (1) 8 inch or 12 inch dimension is preferred to minimize joints
        b. Full depth units
            (1) Thinset quarry tile is prohibited
    3. Edge:
        a. Square
    4. Surface Finish:
        a. Slip resistant
    5. Setting Bed
        a. Full depth mortar bed
    6. Location
        a. School kitchen areas
- Quarry Tile Base
    1. Tile width x 4 inches high
    2. Bullnosed top edge
    3. Coved internal corner
    4. Single-piece external corner
    5. Pre-formed single piece is required at all external corners.
    6. Attachment by mortar only
        a. Use of mastic is prohibited
- Install bullnose profile where tile abuts dissimilar materials.
- Ceramic Tile Floor and Base
    1. Prohibited
- Porcelain Tile Floor and Base
    1. Permitted at:
        a. Student rest rooms
        b. Locker Room toilet areas

   c. Locker Rooms shower areas
2. Optional at school kitchen areas with approval of District Project Manager
3. Installation by mortar only
   a. Use of mastic is prohibited
4. Minimize grout joints, cleanly cut and ease all tile edges at floor drains. Set and cut porcelain tile to avoid large numbers of small tile pieces at drains.

- Ceramic Wall Tile
  1. Thinset application permitted
  2. Epoxy grout required
- Mortar Materials:
  1. Latex mortar required for the following applications:
     a. Exterior
     b. Wet areas (kitchen, toilet rooms, locker rooms)
- Grout:
  1. Epoxy joint filler with zero cementitious is required at all walls and floors within 36 inches of plumbing fixtures.
  2. Preferred color:
     a. White not permitted on floors
- Apply sealant to junction of tile and dissimilar materials and at junction of dissimilar planes, including:
  1. Joints between plumbing fixtures and tile work.
  2. Inside corners:
     a. Rake out and seal
  3. Door frames
- Cleavage membrane is required at slabs over soils with swelling potential.
- Grout Sealer:
  1. Water base penetrating type only
  2. Apply only after set time recommended by manufacturer, but in no case less than 30 days after placement of grout.
- Quality Assurance
  1. Sound tile after setting
     a. Replace hollow sounding units.
  2. Black light (UV) test may be used to confirm locations of epoxy joint filler.

END SECTION 09 30 00

09 50 00 Ceilings – October 2021

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline.
- Submittals
  1. Product data:
     a. Required
  2. Samples:
     a. Required
  3. Closeout:
     a. Submittals listed above

(1) Updated to record status
(2) Samples excluded

b. Record finish schedule including material and color designations.

4. Extra Materials:
   a. Ceiling panels.
      (1) Provide 1% of installed quantity
      (2) 48 tiles minimum

- Ceiling heights which require special equipment for cleaning, service, maintenance, etc. are not recommended except in areas where specific height requirements are indicated in the Educational Specifications.
- Lay-in grid type ceiling systems are prohibited in the following locations:
  1. Stairways
  2. Toilet rooms
  3. Gymnasia
  4. Locker rooms
  5. Storage areas
  6. Utility areas, including boiler, chiller, AHU, and electrical rooms
  7. Exterior, soffits
- Special design and detailing are required for lay-in grid type ceiling systems in adjacent areas that require acoustical separation, including areas separated by operable, accordion, or portable partitions.
- Adhered acoustical tile is restricted to retrofit applications.
  1. Size: 12 inches x 12 inches. Other sizes with approval of District Project Manager
  2. Material: Mineral Fiber
  3. Texture: Non-directional deep fissure or match existing. Smooth surface texture must have acceptable acoustical properties to meet or exceed deep fissure tiles. Smooth surface tiles acceptable with approval of District Project Manager.
- Acoustical Ceiling Panels (Standard):
  1. Size:
     a. 24 inches x 48 inches or
     b. 24 inches x 24 inches
  2. Material:
     a. Compressed mineral fiber
  3. Thickness:
     a. 5/8-inch minimum
  4. Texture:
     a. Non-directional deep fissure
  5. Finish:
     a. Impact-resistant coating is required at corridors, high use and non-assignable areas.
     b. Mylar or other impervious finish is required at food service areas.
  6. Edge:
     a. Square
  7. Color:
     a. Manufacturer's standard factory-applied white
- STC Rating:
  1. 35 to 39 is required in assignable spaces only
- Light Reflectance:

1. 0.75 (minimum)

- Materials:
  1. Class A
  2. Fire rated as required by code
- Site Tolerances:
  1. 6 inch minimum vertical clearance is required between ceiling grid to structure, mechanical, and plumbing.

END SECTION 09 50 00

09 63 00 Masonry Flooring – October 2010

- Prohibited

END SECTION 09 63 00

09 64 00 Wood Flooring – August 2020

- For work on new hardwood flooring, work in this section is open to any product or material meeting the requirements of this Technical Guideline.
  1. Water-based materials shall be utilized on new and existing hardwood floors undergoing refinishing and repairs.
- For work on existing wood flooring, work in this section is restricted to specific products of specific manufacturers that have been previously approved by Jefferson County School District, R-1 Facilities Management.
- New hardwood floors and existing floors undergoing complete sanding and re-finishing:
  1. Acceptable Manufacturers:
     a. Advantage Coatings Technologies
     b. Approved equivalent
- Existing hardwood floors (Maintenance Re-coat):
  1. Acceptable Manufacturers:
     a. Advantage Coatings Technologies
     b. No Substitutions
- Quality Control
  1. During annual maintenance re-coat, perform adhesion tests per MFMA guidelines. If adhesion test result in allowing alternate products, approved product substitutions may be allowed with approval of District Project Manager.
- Moisture Content of Substrate:
  1. Provide slab moisture tests prior to specifying wood flooring system to ensure the proper products and vapor/moisture barriers are specified prior to bid.
  2. Moisture tests required immediately prior to installation of products.
- Wood Flooring Product Acclimation: Properly store wood flooring products outside of packaging within the space for at least 1 month prior to installation to ensure proper acclimation. Acclimation must occur in a controlled environment with lowe levels of humidity.
- Submittals (all products)

1. Product Data:
   a. Required
2. Samples:
   a. Required
3. Test:
   a. Substrate moisture tests are mandatory for new wood flooring systems placed over concrete slab-on-grade.

- Closeout:
  1. Submittals listed above
     a. Updated to record status.
     b. Samples excluded.
  2. O & M Data
  3. Record finish schedule including material and color designations
- Materials and Finishes
  1. Floating Floor System:
     a. Cushioned sleeper system at new flooring systems in Gymnasiums
        (1) Cushion pads or strips with two layers of minimum ½-inch nominal plywood and minimum ¾-inch tongue and groove finished floor.
  2. MFMA First Grade Tongue & Groove northern hard maple (acer saccharum).
  3. Proprietary systems permitted with 10 year track record in Colorado with approval of the District Project Manager.
  4. Prepare, design, and install in full compliance with Maple Flooring Manufacturers Association, including moisture protection.
  5. Finger joint and parquet patterns not permitted
  6. Floor Prep:
     a. New floors: As per manufacturer's instructions
     b. Existing Floors: Completely sand down to raw wood.
  7. New gymnasium floors: Finish coat materials (new wood floors and existing floors undergoing complete sanding and re-finishing):
     a. System Finish:
        (1) First Coat: Advantage Coatings Technologies – Sport Tone Sealer
        (2) Second Coat: Advantage Coatings Technologies - Defense
        (3) Game Line Painting
        (4) Third and Fourth Coats: Defense
        (5) No substitutions
     b. Game striping materials:
        (1) New floors and existing floors undergoing complete sanding and re-finishing:
            (a) Advantage Coatings Technologies ACT Game Line Paint
        (2) Existing floors (re-coating):
            (a) Advantage Coatings Technologies ACT Game Line Paint
        (3) No substitutions
  8. Existing gymnasium floors: Finish coat materials (re-coating of existing wood floors only):
     a. System Prep:
        (1) Advantage Coatings Technologies – Sport Scrub
     b. System Finish:
        (1) Game Line Painting
        (2) First and Second Coats: Advantage Coatings Technologies- Defense

c. No substitutions
9. Finish coat materials for Stages and Wood Platforms:
   a. New floors and existing floors undergoing complete sanding and re-finishing:
      (1) Advantage Coatings Technologies – ACT Game Line Paint
         (a) Color: Black or Dark Brown
      (2) No substitutions
   b. Existing floors (re-coating):
      (1) Advantage Coatings Technologies – ACT Game Line Paint
         (a) Color: Black or Dark Brown
      (2) No Substitutions

- Restrictions
  1. For use in athletic competition gymnasia and performance stages/platforms only
  2. Prohibited in multi-purpose spaces
  3. Prepare, design, and install in full compliance with the Maple Flooring Manufacturers Association, including moisture protection.
- Coordination
  1. Coordinate inserts and sleeves – Division 11

END SECTION 09 64 00

09 65 00 Resilient Flooring – August 2022

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data
     a. Required to confirm physical and performance characteristics, sizes and patterns.
  2. Samples
     a. Color/pattern samples for each specified product
     b. Minimum Submittal:
        (1) 12 colors/patterns for each specified item.
  3. Closeout
     a. Submittals listed above
        (1) Updated to record status.
        (2) Samples excluded.
     b. O & M Data
     c. Record finish schedule including material and color designations
  4. Extra Materials
     a. Flooring:
        (1) Provide 1 per cent of installed quantity
           (a) No less than 50 square feet.
     b. Base and accessories:
        (1) Provide 1 per cent of installed quantity
           (a) No less than 12 lineal feet.
- Materials

2. Durability, field reparability and general maintainability using current materials and equipment are critical issues in the selection of flooring materials to be used in Jefferson County School District, R-1 buildings.
3. Rubber:
   a. High content vulcanized styrene butadiene rubber (SBR) or
   b. Vulcanized (SRR) rubber with zero vinyl content and minimal 'filler' (clay) material.

- Resilient Base and Accessories
  1. Base:
     a. Roll stock rubber
     b. 1/8 inch gauge
     c. Top set coved
     d. 4 inches high (other heights as required for retrofit).
  2. Resilient Base accessories:
     a. Pre-molded rubber end stops and external corners with tabs
     b. Same material, size and color as base.
  3. Stair Accessories
     a. Tread:
        (1) Rubber – for use to repair and patch existing rubber only
            (a) Integral nosing type.
            (b) 1/4-inch gauge with 5/32-inch minimum thickness
            (c) Full width and depth of stair tread in one piece
            (d) Raised pattern
            (e) Smooth nosing
            (f) Square or round nosing profile
        (2) Aluminum
            (a) Full width and depth of stair tread in one piece
            (b) Integral rubberized grit strips or waffle pattern with integral grit rubber
            (c) Amstep or equivalent
        (3) Concrete filled pan treads with aluminum cast-in nosings with integral grit strip
     b. Stringer base:
        (1) Rubber (to patch and repair existing only)
            (a) Single piece construction sheet rubber
            (b) 1/8 inch thick
            (c) Maintain width sufficient to provide four inches above stair nose, measured perpendicular to stair slope.
        (2) Open to any durable non-rubber or non-vinyl materials. Confirm material with District Project Manager for approval.
     c. Resilient Stair Risers:
        (1) Rubber (to patch and repair existing only).085 inch thick with toe
        (2) Maintain full height and length in one piece.
        (3) Combination One-Piece Resilient Stair Treads/Risers are permitted
        (4) Open to any durable non-rubber or non-vinyl materials. Confirm material with District Project Manager for approval.
  4. Edge strips and reducer strips:
     a. Rubber or aluminum extrusion to match flooring thickness
     b. ADA compliant.
     c. Maximum slope: 1:2

- Resilient Sheet Flooring
  1. Vinyl Sheet Products (non-athletic flooring)
     a. Use with approval of District Project Manager at selected locations
  2. Linoleum (solidified linseed oil) products are prohibited.
- Resilient Tile Flooring
  1. Rubber floor tile:
     (1) Restricted Use. Use only with approval of District Project Manager.
     b. Prohibited in the following locations without approval of the District Project Manager:
        (1) Vestibules
        (2) Stairs
        (3) High use hallways and corridors.
     c. 1/8 inch minimum thickness
     d. Self-adhered backing
     e. Through-color smooth surface
     f. Fifty psi min. static load capacity.
  2. Vinyl Composition Tile (VCT)
     a. Premium grade solid vinyl tile
     b. 1/8 inch thick, 12 inches x 12 inches
     c. Through-grained solid vinyl marbleized, molded
     d. Fifty psi minimum static load capacity.
  3. Luxury Vinyl Tile/Plank (LVT)
     a. Prohibited on ramps and sloped surfaces. Prohibited for large areas in classrooms and other spaces where dragging of equipment, chairs, and tables may damage the product's wear surface.
     b. Limit the use of very light and very dark colors. Avoid all white colors.
     c. Utilize multiple-colored patterns to reduce the visual appearance of scratches and gouges.
     d. General:
        (1) ASTM F1700, Class III, Type B
        (2) Minimum total thickness: 2.5 mm (0.098"). 3.175 mm (0.125") preferred.
     e. Wear Layer:
        (1) Texture: Embossed
        (2) Wear Layer Thickness: Min. 20 mil (0.020"). May specify 32 mil as an alternate bid.
        (3) Wear layer shall contain particles suspended in Urethane with a Moh's Hardness of 7 or higher.
     f. Edge Treatment: Micro-bevel preferred
     g. Sizes: Min. width and length: 6-inches
     h. Technical Requirements:
        (1) Flexibility (ASTM F137): Pass – 1" Mandrel – No Crack/Break
        (2) Dimensional Stability (ASTM F2199): Pass – Max. 0.020 in./lf
        (3) Squareness (ASTM F540): Pass – 0.010 in. max.
        (4) Static Load (ASTM F970 mod.): 2,000 psi; Residual Indentation <=0.005 in. Non-Modified tests – min. 750 psi.
        (5) Residual Indentation (ASTM F1914): Pass <8% Average / 10% Single Value
        (6) Flooring Radiant Panel (ASTM E48): Pass – Class I to meet 0.45 watts/cm(2) or greater.

(7) Smoke Density (ASTM E662): Pass < or = 450 Flaming Mode
(8) Slip Resistance (ASTM C1028): Pass > or = 0.5 Leather; 0.6 Rubber
(9) Resistance to Light (ASTM F1515): Pass
(10) Chemical Resistance (ASTM F925): Pass
(11) Resistance to Heat (ASTM F1514): Pass

i. Adhesives:
(1) Manufacturer's recommended adhesive
(2) Concrete Moisture:
(a) For all new construction, provide manufacturer's recommended solution for up to 99% RH. For remodels, add the solution as an alternate to be priced in the event high moisture is present.

j. Floor Preparation:
(1) For all remodels, the floor must be sealed to encapsulate old adhesives. Prepare subfloors properly and follow manufacturer's installation guidelines.

k. Warranty:
(1) Min. 15 years with a separate wear layer warranty of a minimum of 10 years.
(2) If product fails to perform as warranted when properly installed and maintained, the affected area shall be either repaired or replaced.
(3) Product shall have a wear warranty specific to the wear layer.

l. Products manufactured in the USA are preferred.

4. Bio-based Tile (BBT)
a. Prohibited.

- Resilient Tile Flooring (Heavy Duty)
1. In limited areas with approval of District Project Manager only.
2. Homogeneous quartz tile (non-wax surface):
a. ASTM F 970, modified static load - 3500 psi
b. ASTM F 1066, Class 1, Type A (meets or exceeds all requirements)
c. ASTM E 648, Class 1.
d. ASTM E 662, <450
e. ASTM D 2047, ADA compliant slip resistance.
f. ASTM F 925, excellent chemical resistance.
g. ASTM F 150, excellent abrasion resistance.
h. Min. Thickness: 0.08-inches (0.10-inches preferred)
i. Min. Weight: 0.82 lbs/SF
j. Size: 12 x 12 or 24 x 24
k. Texture: Smooth
l. Prohibited in kitchens
m. For use in corridors and other high abuse and wear areas.

- Underlayment
1. Required for retrofit applications over wood floor.
2. APA underlayment grade
3. Sanded face plywood
4. 11/32 inch minimum thickness.

- Subfloor fillers, primers, and adhesives:
1. Waterproof
2. Types recommended by flooring manufacturer for each application and substrate condition.

3. Epoxy stair caulk is required for reinforcement of voids between step and resilient nosing.

- Moisture Content of Substrate:
  1. Provide slab moisture tests prior to specifying carpeting to ensure the proper products and adhesives are specified prior to bid.
     a. To ensure proper adhesion, use 100% slab moisture content for design purposes unless test results are conclusive that moisture content is significantly less than 100% slab moisture content.
  2. Moisture tests required immediately prior to installation of products.
- Installation:
  1. Apply filler at voids behind stair nosings to create a level, uniform, continuously solid substrate.
  2. Do not 'bridge' building joints with flooring
  3. Base
     a. Minimize joints
        (1) 36 inch minimum spacing
        (2) 20 feet or greater is preferred.
     b. Apply adhesive with fluted trowel.
        (1) Gun application is prohibited.
  4. Stair Accessories
     a. For treads over 6 feet long, scribe cut for hairline seam.
        (1) Stagger seams and located seams out of major traffic pattern flow.
     b. Where tread depth exceeds product depth, treads may be site fabricated of specified tread material butted to matching flooring material.
     c. Install stair stringer base configured tight to stair and stringer profile.
     d. Bevel stringer ends as required to match and meet adjacent base.
- Quality Assurance
  1. Control of concrete slab and sub-slab moisture and alkalinity are critical to achieve the anticipated performance of finish flooring installed on or below grade in Jefferson County, Colorado.

END SECTION 09 65 00

09 65 66 Resilient Athletic Flooring – August 2022

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline.
- Summary: Complete installation of synthetic sports surfacing system including striping for use in elementary school gymnasiums only.
- Quality Control:
  1. Concrete moisture vapor emission and pH testing as per manufacturer's requirements.
- Moisture Content of Substrate:
  1. Provide slab moisture tests prior to specifying products to ensure the proper products and adhesives are specified prior to bid.

a. To ensure proper adhesion, use 100% slab moisture content for design purposes unless test results are conclusive that moisture content is significantly less than 100% slab moisture content.

2. Moisture tests required immediately prior to installation of products.
2. New concrete substrate finish and preparation: as per manufacturer's requirements
3. Existing concrete substrate finish and preparation: as per manufacturer's recommendations and field conditions.
4. Installer: Certified or otherwise approved by product manufacturer

- Submittals:
  1. Specifications and product data
  2. Samples: large enough to show full range of pattern and color
  3. O&M data
  4. Installation instructions
  5. Installer qualifications and certifications
  6. Warranty information:
     a. Installation: Min. 1 year.
     b. Material Defects and substrate failure do to moisture: Min. 15 years
- Gymnasium Flooring (Sheet Vinyl Resilient Athletic Flooring):
  1. Manufacturers:
     a. Tarkett Sports
     b. Taraflex Sports, Gerflor Flooring Group
     c. Approved Equivalent
  2. Products and Materials:
     a. Minimum Overall Thickness: 7.5 mm
        (1) Wear-layer: Type 1, Grade 1 - Min. 2 mm clear PVC with UV curing treatment
        (2) Fiberglass reinforcement
        (3) High density closed cell foam backing
     b. Manufacturer Certifications:
        (1) ISO 9001 Certification
        (2) ISO 14001 Certification
     c. Performance Criteria:
        (1) ASTM F2772 Standard Specification for Athletic Performance Properties of Indoor Sports Floor Systems
            (a) Force Reduction: Class 3
            (b) Ball Rebound: >90%
            (c) Vertical Deformation – Maximum 3.5 mm
            (d) Surface Effect/Coefficient of Friction: 80-110
     d. Product Certification:
        (1) ASTM E648, Class 1 Fire Rating
     e. Surface Maintenance: No-wax surface requiring only cleaning and rinsing
        (1) Prefabricated sheet product finish: Minimum 84 ft. long rolls x manufacturer's standard width
        (2) Integral wood grain floor design - Maple wood design to closely replicate standard maple strip flooring in size, color, board length and grain appearance.
        (3) Vinyl welding thread/rod to match floor.
        (4) Floor shall have minimum of 10 feet run-out under baskets. If less than 10 feet, provide wall safety pads.

f. Adhesives: Manufacturer's approved adhesives supplied by manufacturer – full coverage
   (1) Provide moisture-resistant adhesives at high-moisture content substrates.
g. Game line paint: As approved by the flooring manufacturer.
   (1) Standard colors
h. Moisture barrier underlayment sheet as per manufacturer and if required by manufacturer based on moisture tests.
i. Flooring to be sealed around perimeter to wall or adjacent material to prevent moisture travelling under flooring.
j. High-density product with same surface wear layer as floor product for areas receiving bleacher loads.
k. Wall base: vinyl wall base as approved by flooring manufacturer.

3. Poured-type flooring is prohibited.

- Non-Adhered Interlocking Rubber Floor Tiles
  1. For use as Weight Room flooring over concrete
  2. Anti-slip and anti-skid wet or dry
  3. Anti-bacterial, mold and mildew resistant
  4. Vulcanized interlocking rubber tiles
  5. Center, border, and corner tiles required for full and partial floor coverage. Mat bevels at doors or transition thresholds.
  6. Solid, non-porous and non-absorbent mat surface
  7. Color: Solid black or black with color flecks (no more than 10%)
  8. Size: Nominal 2' x 2' or 3' x 3', other sizes as approved by the District Project Manager
  9. Thickness: Min. 3/8-inch
  10. Density: Min. 64 lbs/Cu Ft. – ASTM D3676
  11. Tensile Strength: 350 psi
  12. Manufacturer:
      a. Any commercial manufacturer meeting or exceeding the requirement of this section.

END SECTION 09 65 66

09 66 00 Terrazzo Flooring – August 2015

- Permitted on a case by case basis
  1. Coordinate proposed use with District Project Manager approval only.

END SECTION 09 66 00

09 67 00 Fluid Applied Flooring – August 2015

- Work in this section is restricted to specific products of specific manufacturers that have been previously approved by Jefferson County School District, R-1 Facilities Management.
- For use in selected areas for patching and repairing existing flooring only.

- Approved Manufacturers
  1. Silikal
  2. Dur-A-Flex
  3. Approved equivalent to match existing floors
- Fluid applied resilient, elastomeric, and athletic flooring is not recommended.
- Submittals
  1. Product Data:
     a. Required
  2. Samples:
     a. Color/pattern/texture
  3. Test:
     a. Substrate moisture and alkalinity tests are mandatory for Fluid Applied flooring work on concrete slab on grade.
     b. Bonding
  4. Extra Stock Materials
     a. Provide colored flake blend for future maintenance
- Closeout:
  1. Submittals listed above
     a. Updated to record status
     b. Samples excluded
- O & M Data
  1. Record finish schedule including material and color designations
- Fluid Applied Resinous Flooring is permitted in the following locations (patch and repair of existing only):
  1. Student Toilet rooms
  2. Clinic Toilet room
  3. Locker room toilet rooms
- Materials:
  1. Solvent-free 100% reactive resin based on Methyl Methacrylate (MMA) polymerization and peroxide initiator.
  2. Thoroughly non-porous (urine resistant)
  3. Epoxy systems are prohibited
  4. Medium slip resistance appropriate to area
     a. No sand grit allowed
- Coordination
  1. At retrofit installations
     a. Coordinate removal of partitions, plumbing fixtures, fittings, pipe, and trim within 8 inches of floor.
- Quality Assurance
  1. Temperature and humidity per manufacturer recommendations
  2. Confirm substrate is in full compliance with flooring manufacturer's criteria
  3. Bonding test:
     a. Slab aggregate should fracture before flooring delaminates.
- Preparation
  1. Fully contain the work area
  2. Mask surfaces not intended to receive flooring

3. Bag and seal HVAC, integrated automation, electrical, communications, and electronic safety/security devices in the work area.
4. Negative air pressure

- Installation
  1. Integral cove base:
     a. 5 inch high ¼ inch plywood
     b. 1/8 inch Masonite with rough side exposed
  2. Five coat MMA system; 1/16 inch minimum, 1/8 inch maximum total thickness:
     a. Primer
     b. Glaze body coat with broadcast flakes #1
     c. Glaze body coat with broadcast flakes #2
     d. Top and seal coat #1
     e. Top and seal coat #2
- Quality Assurance
  1. Control of concrete slab and sub-slab moisture and alkalinity are critical to achieve the anticipated performance of finish flooring installed on or below grade in Jefferson County, Colorado.

END SECTION 09 67 00

09 68 00 Carpeting – August 2022

- Work in this section is restricted to specific manufacturers and styles that can meet or exceed the performance standards listed below.
  1. Final acceptance and determination of adequacy of product proposed shall be determined by the District and approval shall be at the sole discretion of the District.
- Acceptable Manufacturers:
  1. Any commercial carpet manufacturer that can meet or exceed the performance standards listed below.
     a. Only specific products from commercial carpet manufacturers that meet or exceed the performance standards listed shall be used in school district facilities – no exceptions.
     b. The burden of proof is on the manufacturer and the design consultant to confirm product conformance with these performance standards. Products not meeting or exceeding these standards are prohibited.
- Product Type:
  1. Broadloom and Modular Carpet Tile are acceptable
  2. Carpet Tile is preferred over broadloom in classrooms.
     a. Locations for broadloom and tile shall be reviewed with, and approved by, the District Project Manager.

- Broadloom and Tile - Minimum Product Standards:

1.	Fiber Type	Antron Lumena, Antron Legacy, Universal, Ultron by Ascend
2.	Fiber Content	Nylon 6,6
3.	Weave	Tufted level loop or tufted multi-level (patterned) loop
4.	Dye Method	Solution Dyed and Yarn Dyed (Min. 60% Solution dyed)

5.	Minimum stitches per inch	9.0*
6.	Minimum Gauge	1/10 inch
7.	Dimensions	Modular: No less than 18 in. in one direction. Broadloom: 6-ft or 12-ft width roles
8.	Minimum Face Yarn Weight	17 OZ/SY. *
9.	Average Pile Density	5900 oz. per cu. yd. minimum*
10.	CRI Texture Appearance Retention Rating (TARR Rating)	Heavy (≥ 3.0 TARR) or Better. Severe (≥ 3.5 TARR) at Classrooms and Corridors
11.	Primary Backing	100% Synthetic (no SBR latex) Woven or non-woven
12.	Secondary Backing (Broadloom)	Min.1/10 inch thickness Solid closed-cell non-aqueous polymeric vinyl composite
13.	Secondary Backing (Modular)	Vinyl composite moisture barrier backing
14.	Minimum Warranty Coverage (15 years). Non-prorated Warranty. "Lifetime" warranties are not acceptable.	Surface wear exceeding 15% of pile fiber, edge ravel, delamination, loss of adhesion to floor, yarn pulls, open seams (broadloom), zippering, static electricity above listed maximum, and moisture penetration. Turf bind warranty is not acceptable in lieu of edge ravel and zippering.
15.	Adhesives	Non-toxic, low VOC, non-flammable, waterproof, full coverage. Manufacturer pre-applied adhesives are acceptable. Corner taping is prohibited for use as the only means of adhering carpet tiles.
16.	Stain/Soil Resistance	Permanent stain/soil inhibitor, incorporated during fiber or carpet manufacturing. AATCC 175, CRI TM 102
17.	Seams	Chemically Welded (Broadloom)
18.	Electrostatic Propensity	AATCC 134: <3.5kV
19.	Flammability	ASTM E 648: Class 1
20.	Smoke Density	ASTM E 662: <450
21.	Delamination	ASTM D3936: Min. 2.5 lbs/inch

*Variations acceptable if overall product meets or exceeds the specified TARR ratings.

- Entryway Walk-Off Systems – Minimum Product Standards:

1.	Fiber Type	Antron Lumina, Antron Legacy, Universal
2.	Fiber Content	Nylon 6,6
3.	Weave	Tufted texture cut and loop
4.	Dye Method	100% Solution Dyed
5.	Minimum stitches per inch	10
6.	Minimum Gauge	1/12
7.	Dimensions	No less than 24-in. x 24-in. (Modular) and 6-ft or 12-ft width roles for welded seam
8.	Minimum Face Yarn Weight	30 OZ/SY
9.	Average Pile Density	7000 oz. per cu. yd. minimum
10.	Foot Traffic (TARR)Tuft Bind	Severe
11.	Primary Backing	100% Synthetic (no SBR latex) Woven or non-woven
12.	Secondary Backing	Min.1/10 inch thickness Solid closed-cell non-aqueous polymeric vinyl composite

- Submittals
  1. Product Data:
     a. Required
  2. Shop Drawing:
     a. Required for installations over 500 square yards.
     b. Indicate:
        (1) Seaming plan
        (2) Method of joining seams
        (3) Direction of carpet and pattern
        (4) Base conditions
        (5) Termination
        (6) Pattern/design features.
  3. Samples:
     a. Required
  4. Design Data, Test Reports, Certificates, Manufacturer Instructions, Performance:
     a. Required
     b. Provide slab moisture tests prior to specifying carpeting to ensure the proper backing is specified prior to bid.
     c. Moisture Resistance: Provide moisture/water resistant backing and adhesive products designed for slabs and substrates with high moisture content to eliminate water penetration into the backing and carpet product.
  5. Closeout:
     a. Submittals listed above
        (1) Updated to record status.
        (2) Samples excluded.
     b. O & M Data
     c. Record finish schedule including material and color designations
  6. Extra Materials:
     a. Deliver properly packaged and identified carpet tile
     b. Deliver properly packaged and identified roll ends of less than 9 feet length and carpet pieces of more than 3 square yard area and more than 24 inches wide.
     c. Delivery to Owner's designated storage space.
     d. Minimum = 1% of installed material.
- Restrictions
  1. Carpeted steps and nosings are prohibited except in low traffic areas where necessary for acoustical performance.
  2. Carpet is prohibited within 24 inches of plumbing fixtures unless approved by the District Project Manager.
  3. Carpet-over-carpet retrofit is prohibited.
  4. Carpeting strips or field cuts less than 6-inches wide are prohibited.
- Coordination
  1. See 12 48 00 Rugs and Mats for walk-off mat requirements
- Installation
  1. To ensure proper adhesion, use 100% slab moisture content for design purposes unless test results are conclusive that moisture content is significantly less than 100% slab moisture content.

2. Carpet tile and broadloom shall have 100% adhesive coverage, either field applied or factory applied. Spot adhesive and corner taping is prohibited.
3. Lay carpet on floors with run of pile in same direction as anticipated traffic.
4. Center seams under doors
   a. Do not seam in traffic direction at doorways.
5. Extend carpet:
   a. Under open-bottomed and raised-bottom obstructions and under removable flanges of obstructions.
   b. Into closets and alcoves of rooms indicated to be carpeted, unless another floor finish is indicated for such spaces.
   c. Under all movable furniture and equipment, unless otherwise directed.
6. Install carpet edge guard at every location where edge of carpet is exposed to traffic
   a. Except where another device, such as an expansion joint cover system or threshold, is indicated with an integral carpet binder bar.
7. Provide cut-outs where required and bind cut edges properly where not concealed by edge guards or overlapping flanges.
8. Carpet materials in any contiguous area shall be from a single dye lot.
   a. Visible differences in color or texture shall be grounds for rejection.
9. Provide Manufacturer's Field Inspection Services during final inspection and as otherwise requested by the Owner.

END SECTION 09 68 00

09 69 00 Access Flooring – October 2010

- Work in this section is open to any product or material

END SECTION 09 69 00

09 70 00 Wall Finishes – August 2019

- Work in this section is open to any product or material
- Submittals
  1. Product Data:
     a. Required
  2. Samples:
     a. Required
  3. Closeout:
     a. Submittals listed above
        (1) Updated to record status.
        (2) Samples excluded.
     b. O&M Data
     c. Record finish schedule including material and color designations
  4. Extra Materials:
     a. Sixty-four square feet (minimum) of each color or pattern of each material installed.
- Wall Covering
  1. Use of vinyl or fabric wallcoverings is discouraged. Use only with approval of District Project Manager.

2. Wall covering is prohibited in high traffic public areas such as corridors, restrooms, and commons.
3. Wallcovering is prohibited over the following substrates:
   a. Concrete or masonry with opposite side exterior exposure
   b. Foil-backed gypsum wallboard
   c. Waferboard

- If approved by the District Project Manager, wallcoverings may be used where they are designed as independent panels mounted over wall substrates with brackets and can be removed without damage to the wall substrates. Adhesives applied directly to the wall are prohibited.
- Carpet on walls is discouraged. Use only with approval of District Project Manager.

END SECTION 09 70 00

09 80 00 Acoustic Treatment – August 2021

- Work in this section is open to any product or material as designated:
  1. Fabric, Vinyl, or Metal faced panels with acoustical cores
  2. Cementitious Wood Fiber panels with approval of District Project Manager (must be located out of reach from students)
  3. Ability to resist impacts at Gymnasiums and other high-activity areas.
  4. Concealed bracket or rod-suspension mounted

END SECTION 09 80 00

09 90 00 Painting and Coatings – August 2020

- Work in this section is restricted to specific products of specific manufacturers that have been previously approved by Jefferson County School District, R-1 Facilities Services Department.
  1. Basis if Design:
     a. Sherwin-Williams Co. (Sherwin-Williams).
     b. Approved Equivalent:
        (1) Other manufacturers may provide specific products if approved by District Project Manager as meeting the performance criteria listed under the specific product use and painting schedule.
        (2) Benjamin-Moore Paints
        (3) PPG Paints
        (4) Approved Equivalent
- Proprietary specifications are strongly recommended for work in this section, along with a comprehensive finish schedule that correlates specific products, locations, substrates, and colors.
- Whiteboard, Markerboard, or Dry Erase paint is prohibited.
- Submittals
  1. Product Data:
     a. Required

b. Material Safety Data Sheet (MSDS) for each material.
c. Manufacturer's standard application instructions
d. Basic product information and specifications

2. Samples:
   a. Field Quality Control Sample Panel is required for each substrate and each color/pattern.
3. Closeout:
   a. O & M Data
   b. Record of application equipment and pressure settings is required for High Performance Multicolor Coatings.
   c. Record as-constructed finish schedule including material and color designations.
4. Extra Materials:
   a. Full containers only.
   b. Exterior, Flat Acrylic Paint:
      (1) 1 gal of each color applied.
   c. Exterior, Low-Luster Acrylic Finish:
      (1) 2 gal. of each color applied.
   d. Exterior, Semigloss Acrylic Enamel:
      (1) 2 gal. of each color applied.
   e. Interior, Low-Luster Acrylic Finish:
      (1) 2 gal. of each color applied.
   f. Interior, Semigloss Acrylic Enamel:
      (1) 2 gal. of each color applied.

- Custom colors may be used for accents only
  1. With approval of District Project Manager
- Field Quality Control
  1. Prepare substrate surfaces to full compliance with paint manufacturer instructions.
  2. Prime and Undercoats:
     a. Tint each coat to distinguish it from the previous.
  3. Apply each product in accordance with manufacturer's recommendations, including mil thickness application requirements.
  4. Apply each product in accordance with manufacturer's recommendations.
  5. Wet Film Thickness (Mil) Gauge is required to be in the possession of each working applicator on the jobsite when applying paint where wet mil film thicknesses are specified.
  6. Manufacturer Representative is required to be present during start-up of application of special coatings and on call at other times during application.
- VOC Content:
  1. Only submit complying products based on project requirements (OTC Phase II Ozone Transport Commission)

- PRODUCTS

  - CONCRETE UNIT MASONRY BLOCK FILLERS
    1. Concrete Unit Masonry Block Filler: Interior/Exterior Latex Block Filler Topcoat.
       a. Masonry (not brick), Concrete, Cement, Concrete Masonry Units:
          (1) Sherwin-Williams; PrepRite Block Filler B25W25

(a) Color: Off White
(b) Coverage: 8 mils dry
(c) Vinyl Acrylic
(d) VOC: ≤ 100g/L
(e) Volume Solids: 48 (+/-2)%
(f) Weight Solids: 68 (+/-2)%

(2) Approved Equivalent

2. Concrete Unit Masonry Primer: Interior/Exterior 100% Acrylic Resin for smooth and uniform surfaces.
   a. Precast Concrete, Concrete Masonry Unit, Stucco
      (1) Sherwin-Williams: Loxon Concrete & Masonry Primer Sealer, LX02W50
         (a) Color: Off White
         (b) Coverage: 3.2 mills dry
         (c) Acrylic Resin
         (d) VOC: ≤ 100 g/L
         (e) Volume Solids: 41 (+/-2)%
         (f) Weight Solids: 55 (+/-2)%
      (2) Approved Equivalent

- EXTERIOR PRIMERS
  1. Factory-formulated alkali-resistant acrylic-latex primer for exterior application.
     a. Wood, Plywood, Masonry (not brick), Aluminum, Galvanized Steel, Stucco, Cement Composition, Previously Painted Surfaces:
        (1) Sherwin-Williams; Quick Dry Interior/Exterior Latex Stain Blocking Primer B51W08670
           (a) Color: White
           (b) Coverage: 1.1 mils dry
           (c) Vinyl Acrylic
           (d) VOC: ≤ 100 g/L
           (e) Volume Solids: 29 (+/-2)%
           (f) Weight Solids: 43 (+/-2)%
        (2) Approved Equivalent
     b. Interior/Exterior Wood, Metal, Drywall, Other Surfaces as per Mfr.
        (1) Sherwin-Williams: Multi-Purpose Primer/Sealer, B51-450 Series
           (a) Color: White
           (b) Coverage: 1.44 mils dry
           (c) Latex Enamel
           (d) VOC: ≤ 100 g/L
           (e) Volume Solids: 36 (+/-2)%
           (f) Weight Solids: 51 (+/-2)%
        (2) Approved Equivalent
     c. Primer under water-based or solvent-based High Performance Topcoats for ferrous metal
        (1) Sherwin-Williams: Pro-Cryl Universal Primer B66-310
           (a) Color: Gray, Off-White, Red Oxide
           (b) Coverage: 2.0 – 4.0 mils dry
           (c) Acrylic
           (d) VOC: ≤ 100 g/L

(e) Volume Solids: 36 (+/-2)%
(f) Weight Solids: 49 (+/-2)%
(2) Approved Equivalent

- INTERIOR PRIMERS
  1. Factory-formulated alkali-resistant acrylic-latex interior primer for interior application.
     a. Wood, Drywall, Plywood, Plaster:
        (1) Sherwin-Williams; Quick Dry Stain Blocking Primer, B51W8670
            (a) Color: White
            (b) Coverage: 1.1 mils dry
            (c) Vinyl Acrylic Latex
            (d) VOC: ≤ 100 g/L
            (e) Volume Solids: 29 (+/-2)%
            (f) Weight Solids: 43 (+/-2)%
        (2) Approved Equivalent
     b. Interior metal:
        (1) Sherwin-Williams: Pro-Cryl Universal Primer B66-310
            (a) Color: Gray, Off-White, Red Oxide
            (b) Coverage: 2.0 mils dry
            (c) Acrylic
            (d) VOC: ≤ 100 g/L
            (e) Volume Solids: 36 (+/-2)%
            (f) Weight Solids: 49 (+/-2)%
        (2) Approved Equivalent

- EXTERIOR FINISH COATS
  1. Factory-formulated acrylic-emulsion latex paint for exterior application.
     a. Masonry (not brick), Concrete, Stucco, Previously Painted Surfaces
        (1) Sherwin-Williams: Conflex SherLastic Elastomeric Masonry Coating CF16W50 Series – Mildew-Resistant 100% Acrylic.
            (a) Color: As Selected
            (b) Coverage: 20 - 28 mils dry (depending on system application)
            (c) 100% Elastomeric Acrylic
            (d) VOC: ≤ 100 g/L
            (e) Volume Solids: 39 (+/-2)%
            (f) Weight Solids: 53 (+/-2)%
        (2) Approved Equivalent
     b. Ferrous and other Metals
        (1) Sherwin-Williams: Pro Industrial Waterbased Alkyd Urethane
            (a) Color: As Selected
            (b) Sheen: Semi-Gloss
            (c) Coverage: 1.7 mils dry
            (d) Urethane Modified Alkyd Resin
            (e) VOC: ≤ 100 g/L
            (f) Volume Solids: 34 (+/-2)%
            (g) Weight Solids: 47 (+/-2)%
        (2) Approved Equivalent

c. Aluminum, Vinyl, Wood, Plywood, Masonry, Metal Flashing
   (1) Sherwin-Williams: A-100 Series Exterior Latex
      (a) Color: As Selected
      (b) Sheen:
         (i) Gloss: A8-100 Series
         (ii) Low Sheen: A12-100 Series
         (iii) Satin: A82-100 Series
      (c) Coverage: 1.2 mils dry
      (d) Acrylic Latex
      (e) VOC: ≤ 100 g/L
      (f) Volume Solids: 34 (+/-2)%
      (g) Weight Solids: 52 (+/-2)%
   (2) Approved Equivalent
d. Aluminum, Vinyl, Wood, Plywood, Masonry, Metal Flashing
   (1) Sherwin-Williams: SuperPaint - Acrylic Latex Exterior
      (a) Color: As Selected
      (b) Sheen:
         (i) Gloss: A8-100 Series
         (ii) Low Sheen: A12-100 Series
         (iii) Satin: A82-100 Series
      (c) Coverage: 1.4 mils dry
      (d) Acrylic Latex
      (e) VOC: ≤ 100 g/L
      (f) Volume Solids: 36 (+/-2)%
      (g) Weight Solids: 53 (+/-2)%
   (2) Approved Equivalent

- INTERIOR FINISH COATS
  1. Factory-formulated Low-Odor acrylic-emulsion latex paint for interior application.
     a. Primed Plaster, Wood, Drywall, Masonry (not brick), Primed Metal
        (1) Sherwin-Williams: ProMar 200 HP Series – Zero VOC
           (a) Color: As Selected
           (b) Sheen:
              (i) Egg-Shell: B20-1900 Series
              (ii) Semi-Gloss: B31-1900 Series
           (c) Coverage: 1.7 mils dry
           (d) Acrylic
           (e) VOC: ≤ 100 g/L
           (f) Volume Solids: 42 (+/-2)%
           (g) Weight Solids: 54 (+/-2)%
        (2) Approved Equivalent
  2. Factory-formulated Epoxy paint for interior application.
     a. Primed Plaster, Wood, Drywall, Masonry (not brick).
        (1) Sherwin-Williams: Pro Industrial Waterbased Epoxy
           (a) Color: As Selected
           (b) Sheen: Semi-Gloss: K46W1150 Series
           (c) Coverage: 1.4 mils dry

(d) Acrylic Epoxy
(e) VOC: ≤ 100 g/L
(f) Volume Solids: 35 (+/-2)%
(g) Weight Solids: 48 (+/-2)%
(2) Approved Equivalent

3. Factory-formulated Urethane Modified Alkyd paint for interior application
   a. Primed Metal:
      (1) Sherwin-Williams: Pro Industrial Waterbased Alkyd Urethane
         (a) Color: As Selected
         (b) Sheen: Semi-Gloss
         (c) Coverage: 1.7 mils dry
         (d) Urethane Modified Alkyd Resin
         (e) VOC: ≤ 100 g/L
         (f) Volume Solids: 34 (+/-2)%
         (g) Weight Solids: 47 (+/-2)%
      (2) Approved Equivalent

- INTERIOR WOOD STAINS AND VARNISHES
  1. Open-Grain Wood Filler: Factory-formulated paste wood filler applied at spreading rate recommended by manufacturer.
     a. Wood Filler:
        (1) Sherwin-Williams
        (2) Approved Equivalent
  2. Interior Wood Stain: Factory-formulated alkyd-based penetrating wood stain for interior application.
     a. Wood Stain:
        (1) Sherwin-Williams; Min Wax Stain 250.
           (a) Color: As Selected
           (b) Coverage: 0.0 mils dry
           (c) Alkyd
           (d) VOC: ≤ 275 g/L
           (e) Volume Solids: 34 (+/-2)%
           (f) Weight Solids: 40 (+/-2)%
        (2) Approved Equivalent
  3. Interior Waterborne Clear Satin Varnish: Factory-formulated clear, gloss, or satin acrylic-based polyurethane varnish
     a. Varnish:
        (1) Sherwin-Williams; Min Wax Water Based Polyurethane.
           (a) Color: Clear when dry
           (b) Sheen:
              (i) Gloss
              (ii) Satin
           (c) Coverage: 1.0 mils dry
           (d) Polyurethane Acrylic
           (e) VOC: Gloss ≤275 g/L; ≤Satin 275 g/L
           (f) Volume Solids: Gloss 26 (+/-2)%; Satin 27 (+/-2)%
           (g) Weight Solids: Gloss 29 (+/-2)%; Satin 30 (+/-2)%
        (2) Approved Equivalent

4. Interior Wood Flooring (Gymnasia and Stages/Performance Platforms)
   a. See Section 09 64 00 for specific requirements.

- EXTERIOR WOOD STAINS
  1. Exterior Polyurethane-Based Semi-Transparent Stain:
     a. Semi-Transparent Stain:
        (1) Sherwin-Williams; WoodScapes Exterior Polyurethane Semi-Transparent Stain A15T00005
            (a) Color: As Selected
            (b) Coverage: 0.0 mils dry
            (c) Polyurethane
            (d) VOC: ≤275 g/L
            (e) Volume Solids: 8 (+/-2)%
            (f) Weight Solids: 10 (+/-2)%
        (2) Approved Equivalent

- INTERIOR CONCRETE FLOORS
  1. Interior Acrylic Water-based Floor Coating:
     a. Concrete Floors and Steps
        (1) Sherwin-Williams: Armorseal Tread-Plex 100% Acrylic
            (a) Color: As Selected
            (b) Sheen: Semi-Gloss
            (c) Coverage: 1.5 – 2.0 mils dry
            (d) 100% Acrylic
            (e) VOC: Gloss ≤ 100 g/L
            (f) Volume Solids: 43 (+/-2)%
            (g) Weight Solids: 55 (+/-2)%
        (2) Approved Equivalent

STANDARD PAINTING SCHEDULE

- Surface: Interior Concrete
  1. Primer: Premium 100% Acrylic latex primer
  2. First Coat: Premium 100% Acrylic Zero VOC latex paint
  3. Final Coat: Premium 100% Acrylic Zero VOC latex semi-gloss

  Note: Do not thin.
- Surface: Interior Concrete Block
  1. Primer: Vinyl Acrylic Block Fill
  2. First Coat: Premium 100% Acrylic Zero VOC latex paint
  3. Final Coat: Premium 100% Acrylic Zero VOC latex semi-gloss

  Note: Do not thin.
- Surface: Interior Concrete Block Per Health Department Regulations
  1. Primer: Vinyl Acrylic Block Filler, applied by brush, roller, or spray airless
  2. First Coat: Acrylic PreCatalyzed WaterBase Epoxy, Semi-Gloss
  3. Second Coat: Acrylic PreCatalyzed WaterBase Epoxy, Semi-Gloss
- Surface: Interior Brick and Rusticated CMU
  1. Sealer: Waterborne Acrylic Clear Sealer (non-film forming)

2. Alternate: Waterborne Acrylic Clear Epoxy (film forming)
3. Prohibited: Alaphatic Urethane

- Surface: Interior Ferrous and Factory Primed Metals
  1. Undercoat: Not required if factory primer is intact
  2. Primer: Rust Inhibitive VOC compliant Acrylic Primer (mandatory for welds).
  3. First Coat: Premium VOC compliant Urethane Modified Alkyd semi-gloss.
  4. Second Coat: Premium VOC compliant Urethane Modified Alkyd semi-gloss.

  Note: Use primer for bare spots
- Surface: Interior Hollow Metal Doors and Frames
  1. Undercoat: Not required if factory primer is intact
  2. Primer: Rust Inhibitive VOC compliant Acrylic Primer (mandatory for welds, bare spots and miter cuts).
  3. First Coat: Premium VOC compliant Urethane Modified Alkyd semi-gloss
  4. Second Coat: Premium VOC compliant Urethane Modified Alkyd semi-gloss

  Note: Use primer for bare spots
- Surface: Interior Woodwork/Wood Doors – Natural Finish
  1. Primer: Not required
  2. Stain Coat: One or two applications of an oil stain as required until uniform
  3. Sealer Coat: Oil modified Polyurethane
  4. Finish Coat: Oil modified Polyurethane, satin finish.
  5. Alternate: 3 coats premium polyurethane (satin, semi-gloss or gloss), sand and tack between coats

  Note: Sand and tack between coats
- Surface: Interior Hardwood Gymnasium Floor
  1. See Section 09 64 00, Wood Flooring
- Surface: Interior Woodwork – Opaque Finish
  1. Undercoat: Premium Acrylic latex primer.
  2. First Coat: Premium 100% Zero VOC Acrylic latex gloss or semi-gloss paint.
  3. Second Coat: Premium 100% Zero VOC Acrylic latex gloss or semi-gloss paint.
- Surface: Interior Plaster & Gypsum Board
  1. Primer: Latex drywall primer (per manufacturer's written instructions).
  2. First Coat: Premium 100% Zero VOC Acrylic latex semi-gloss or satin.
  3. Second Coat: Premium 100% Zero VOC Acrylic semi-gloss or satin.
- Metal Locker Refinishing
  1. First Coat: Electrostatic applied enamel, lacquer or other approved material.
  2. Second (optional) coat: Same as first coat.
  3. Unless approved otherwise, paint interior and exterior of lockers.
     Note: Successful application of electrostatic coatings requires proper equipment, solvents, and application techniques.
- Surface: Exterior Concrete Block
  1. Options
     a. 100% Elastomeric Acrylic
     b. Sealer per Section 07 10 00
     c. Graffiti resistant coating per 09 96 00
  2. Paint and stain are prohibited
- Surface: Exterior Concrete
  1. 100% Elastomeric Acrylic

2. Graffiti resistant coatings are prohibited.

- Surface: Exterior Ferrous Metal & Factory Primed Metal
  1. Primer: Rust Inhibitive VOC compliant Acrylic Primer. Slightly rusted surfaces require a Rust Inhibiting Primer. New and rusted surfaces require preparation per manufacturers written instructions.
  2. First Coat: Urethane Modified Acrylic, semi-gloss.
  3. Second Coat: Premium Urethane Modified Acrylic, semi-gloss.
  4. Alternate: 2 coats Premium VOC compliant Alkyd semi-gloss.

  Note: Paint all exposed surfaces, including hollow metal doors and frames, windows, fabricated steel and miscellaneous metals. Paint inside faces of exterior hollow metal.
- Surface: Exterior Wood – Natural Finish
  1. First Coat: Premium VOC compliant clear oil deck and siding stain prepare and coat surfaces per manufacturer's written instructions.
  2. Second Coat: Premium VOC compliant clear oil deck and siding stain.
- Surface: Exterior Wood-Opaque Finish
  1. Primer: Premium 100% Acrylic latex primer
  2. First Coat: Premium 100% Acrylic latex enamel
  3. Second Coat: Premium 100% Acrylic latex enamel
- Surface: Galvanized Metal
  1. Preparation: Wipe with preparation fluid if new; Proceed directly to painting if substrate has been allowed to weather for minimum six months.
  2. Primer: Rust Inhibitive VOC compliant Acrylic Primer.
  3. First Coat: Urethane Modified Alkyd, Semi-Gloss
  4. Second Coat: Urethane Modified Alkyd, Semi-Gloss

  Note: Paint all surfaces exposed to occupant view, public view, and weather; Do not paint exterior surfaces exposed to weather only.
- Surface: Exterior Brick
  1. Painting/coating is prohibited.
- Surface: Closed cell foam pipe insulation, exposed to view
  1. 100% acrylic exterior paint
  2. Second coat: Same

END SECTION 09 90 00

09 96 00 High-Performance Coatings – October 2010

- Work in this section is open to any product or material meeting the requirement of this Technical Guideline
- Graffiti-Resistant Coatings
  1. One or two part EPA VOC compliant non-sacrificial, alkaline-stable barrier coating with 90% minimum water vapor transmission.
  2. Water borne polyurethane compounds:
     a. Preferred
  3. Rubber silicone compounds:
     a. Acceptable

4. Urethane compounds:
   a. Prohibited on masonry

END SECTION 09 96 00