

SECTION 09260

GYPSUM BOARD SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Metal stud wall, ceiling and soffit framing.
- B. Acoustic insulation.
- C. Gypsum board with taped and sanded joint treatment.

1.02 QUALITY ASSURANCE

- A. Perform Work in accordance with GA-216 – Application and Finish of Gypsum Panel Products. In addition to these recommendations/requirements, work shall be performed in accordance with the specified and/or supplied manufacturer's guide specifications and recommendations for the materials, application and given conditions.

PART 2 PRODUCTS

2.01 GYPSUM BOARD SYSTEM

- A. Gypsum Board Manufacturers:
 - 1. U.S. Gypsum
 - 2. Other approved upon request.
- B. Metal Stud Manufacturers:
 - 1. Clark
 - 2. Others approved upon request.
- C. Studs and Tracks: ASTM C645; galvanized sheet steel, 20 gauge thick, C shape, with serrated faces.
- D. Gypsum Board Types: thicknesses as shown on drawings, maximum permissible length; ends square cut, tapered edges; unless noted otherwise as follows:
 - 1. Standard Type: ASTM C36.
 - 2. Exterior Gypsum Soffit Board: ASTM C931.
 - 3. Cementitious Backing Board: High density, cementitious, glass fiber reinforced.
 - 4. Water Resistant Board : for wet areas (restrooms, janitors areas, mechanical/electrical/plumbing areas), otherwise see finish schedule.
 - 5. Fire Rated: for fire rated assemblies, see drawings.
 - 6. Abuse Resistant: as required, see drawings.
 - 7. "Sound Break" acoustic in special locations. See drawings for particular locations.

2.02 ACCESSORIES

- A. Acoustical Insulation: Kraft paper-faced batts
- B. Corner Beads: Metal.
- C. Edge Trim: GA 201 and GA 216, Type LC bead.
- D. Joint Materials: ASTM C475, reinforcing tape, joint compound, adhesive, and water.
- E. Fasteners: ASTM C1002 Type S12 hardened screws.
- F. Adhesive: ASTM C557.

- G. Reveal strips and corner molding: formed with “wall reveal” drywall trim strips. See building plans, sections and interior elevations. All reveal strips to be equal to *Fry Reglet*, “Reveal Molding” with ½” reveals (unless noted otherwise on drawings). Install with factory formed or field assembled intersections, terminations, etc. for a neat, clean finish. Supply and install required blocking and/or supports at reveal molding locations as recommended by manufacturer for proper attachment.

PART 3 EXECUTION

3.01 INSTALLATION - METAL STUDS

- A. Install studding, brace, and anchor in accordance with manufacturer's instructions.
- B. Metal Stud Spacing: 16 inches o.c. max.
- C. Gauges for metal studs are to be as follows for Interior Walls:
 - 20 gauge studs up to 18'-0"
 - 18 gauge studs for 18'-0" and over

Gauges for metal studs are to be as follows for Exterior Walls:

- 20 gauge studs up to 14'-0"
- 18 gauge studs up to 16'-0"
- 16 gauge studs up to 18'-0"
- 14 gauge studs for 18'-0" and over

Use solid lateral bridging at maximum vertical spacing of 3'-4" on center.

- D. Partition Heights: To 12 inches above suspended ceilings or full-height as described on drawings. Install additional bracing to structure above for partitions extending above ceiling.
- E. Where gypsum board is to be installed over a solid substrate, resilient furring strips (commonly known as “hat channel”) is to be installed. All installations are to be as recommended by the approved manufacturer. Furring strips are to be installed at 16" o.c. maximum, unless a smaller spacing is required.

3.02 INSTALLATION – SOFFIT AND CEILING FRAMING

Install suspended gypsum board ceilings with hangers sized and spaced for given application (note required load and fire code requirements). Laterally brace ceiling system to walls and/or ceiling above as required. Gypsum board ceiling is to be supported by 1 ½" cold rolled channels @ 4' o.c. maximum (or as noted on the drawings); with 7/8" resilient furring strips (perpendicular) @ 16" o.c., maximum. See drawings for location of reveal strips and other accessories; ensure that the spacing and orientation of the suspension system will accommodate these required accessories (install any blocking or bracing as required for these and all other components).

Ceilings in smaller rooms may be constructed with metal studs. These studs shall not exceed the manufacturer's recommendations for unsupported spans with the given load. Additional bracing, supports, “kickers” will be installed as necessary. Verify with Architect.

- A. Install, anchor and brace in accordance with manufacturer's instructions for given conditions. See drawings for coordination requirements and details.

- B. Coordinate location of hangers and anchors with other work. Install ceiling framing independent of walls, columns, and above ceiling work.
- C. Reinforce openings in ceiling suspension system which interrupt main carrying channels or furring channels, with lateral channel bracing. Reinforce and anchor fixtures, architectural details, etc. as required to support loads.
- D. Laterally brace entire suspension system .

3.03 INSTALLATION - ACOUSTICAL ACCESSORIES – Not Used

3.04 INSTALLATION - GYPSUM BOARD

- A. Install gypsum board, wall board, backer board, etc. in accordance with manufacturer's instructions.
- B. Fasten gypsum board to furring or framing with screws.
- C. Place control joints consistent with lines of building spaces as directed.
- D. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- E. Treat cut edges and holes in and exterior gypsum soffit board with sealant.

3.05 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
- C. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile.
- D. Erect in accordance with manufacturer's instructions.

3.06 TOLERANCES

- A. Maximum Variation from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION

SECTION 09300

CERAMIC TILE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Ceramic floor, base, accessories and wall finish using the thin-set application method.
- B. Preparation of surfaces prior to application.
- C. Cementitious backing board.

1.02 RELATED SECTIONS

- A. Gypsum Board Systems: Cementitious Backing Board.
- B. See related sections regarding accessories to be installed in or on tile surfaces including: restroom accessories, toilet partitions, plumbing fixtures, etc. Ensure that proper blocking, anchorage and attachments are in place prior to preparing surfaces and installing tile.

1.03 SUBMITTALS

- A. Product Data: Provide material specifications, characteristics, and instructions for using adhesives and grouts.
- B. Samples: Submit two samples illustrating color range of tile and grout for selection.

1.04 QUALITY ASSURANCE

- A. Perform work in accordance with TCA Handbook for Ceramic Tile Installation.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement of ANSI A137.1 for labeling sealed tile packages.
- B. Prevent damage or contamination to materials by water, freezing, foreign matter, and other causes.
- C. Handle tile with temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If despite these precautions coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

1.06 PROJECT CONDITIONS

- A. Maintain environmental conditions and protect work during and after installation to comply with references standards and manufacturer's printed recommendations.
- B. Vent temporary heaters to exterior to prevent damage to tile work from carbon dioxide buildup.
- C. Maintain temperatures at 50 deg F (10 deg C) or more in tiled areas during installation and for 7 days after completion, unless higher temperatures are required by referenced installation standard or manufacturer's instructions.

1.07 EXTRA MATERIALS

- A. Deliver extra materials to Owner. Furnish extra materials that match products installed as described below, packaged with protective covering for storage and identified with labels clearly describing contents.
 - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed (minimum 12 full tile), for each type, composition, color, pattern, and size.

PART 2 PRODUCTS

2.01 TILE MATERIALS

- A. Tile Manufacturers:
 - 1. Marazzi Tile (Rooms #T02 and #T03)
 - 2. Crossville
 - 3. American Olean Tile
 - 4. Dal-Tile
 - 5. Approved equal upon request.
- A. **Floor (#T02 and T03):** Color Body Porcelain floor tile with static coefficient of friction (ASTM C1028 Modified) of 0.60 or greater slip resistance per CTI certification. Dynamic Coefficient of Friction (D.C.O.F.) value of 0.42 is required.. *DCOF AcuTest is the industry designation for the test procedure contained in ANSI A137.1
 - a. Manufacturer: Marazzi Tile Soho Color Body Porcelain (or approved equal).
 - b. Tile size: 24"x24", and thickness: 0.413.
 - c. Color: Anthracite (approved equal from manufacturer's full range)
- B. **Wall Tile (#T02 and T03):** Color Body Porcelain wall tile with static coefficient of friction (ASTM C1028 Modified) of 0.60 or greater slip resistance per CTI certification. Dynamic Coefficient of Friction (D.C.O.F.) value of 0.42 is required.. *DCOF AcuTest is the industry designation for the test procedure contained in ANSI A137.1
 - a. Manufacturer: Marazzi Tile Soho Color Body Porcelain (or approved equal).
 - b. Tile size: 12"x24", and thickness: 0.413.
 - c. Color: Anthracite (approved equal from manufacturer's full range)
- C. **Floor Base:** Provide equal to Schluter Dilex AHK prefinished.
- D. **Accent Pieces:** as indicated on drawings. In color and style as indicated.

- E. **Mounting:** Where factory mounted tile is required, provide face- or edge-mounted tile assemblies as standard with manufacturer unless another mounting method is indicated.

Where tile is indicated for installation in hydro-therapy pools or other wet areas, do not use back-or edge-mounted tile assemblies.

2.02 SETTING MATERIALS

- A. Epoxy Adhesive: ANSI A118.3, thinset bond type as recommended by tile manufacturer.

2.03 GROUT MATERIALS

- A. Grout: ANSI A118.6, ceramic tile grout.
- B. Color Admixture: color as selected by Architect.

2.04 ACCESSORIES

- A. Threshold and transitions: marbleized, full depth and width of frame opening, beveled both sides, radiused edges. ADA compliance required.
- B. Sealant: Mildew resistant type, specified in Section 07900.

2.05 GROUT MIX

- A. Mix and proportion pre-mix grout materials in accordance with manufacturer's instructions.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Seal substrate surface cracks with filler.
- B. Verify that surface is level and ready to receive tile. Clean any foreign material from surface. Apply approved leveling compound to correct any defects. Install a light weight concrete "mud bed" if necessary to correct existing damage, to level floor or to slope to floor drains. All existing conditions (required leveling, sloping to drains, etc.) are to be corrected in renovated construction and new construction prior to tile application.
- C. Coordinate substrate preparation with all accessories and items to be installed in or on tile surfaces including: restroom accessories, toilet partitions, plumbing fixtures, etc. Do not proceed until proper blocking, anchorage and attachments are in place prior to preparing surfaces and installing tile.

3.02 INSTALLATION

- A. ANSI Tile Installation Standard: Comply with parts of ANSI 108 series of tile installation standards included under "American National Standard Specifications for the Installation of Ceramic Tile" that apply to type of setting and grouting materials and methods indicated.
- B. TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation"; comply with TCA installation methods indicated.

- C. Extend tile work into recesses and under or behind equipment and fixtures to form a complete covering without interruptions except as otherwise shown. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments. See details. Coordinate with wall mounted equipment and accessories.
- D. Accurately form intersections and returns. Pre-form cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so that plates, collars, or covers overlap tile. Cut and fit tile tight to penetrations. Form corners and bases neatly. Fall tile evenly to floor drains. Set tile at floor drains so that water is able to flow easily into drain without pooling or ponding. Coordinate tile elevations with abutting trades' work.
- E. Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths unless other shown. Do not interrupt tile pattern through openings. Grout tile joints. Make joints watertight, without voids, cracks, excess mortar or excess grout.
 - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so that extent of each sheet is not apparent in finished work.
 - 2. For all tile installation use tile spacer/wedge for proper alignment.
- F. Expansion Joints: Locate expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated (or as necessary to separate existing and new construction, coordinate locations with Architect) during installation of setting materials, mortar beds, and tile. Do not saw cut joints after installation of tiles.
 - 1. Locate joints in tile surfaces directly above joints in concrete substrates.
 - 2. Prepare joints and apply sealants to comply with requirements of Division 7 Section "Joint Sealers."
- G. Grout tile to comply with the requirements of the following installation standards:
 - 1. For ceramic tile grouts latex-Portland cement grouts, comply with ANSI A108.10.

3.03 FLOOR INSTALLATION METHODS

- A. Ceramic Mosaic Tile: Install to comply with requirements indicated below for setting bed methods, TCA installation methods related to types of sub-floor construction, and grout types:
 - 1. **Per manufacturers recommendations for surface and conditions.**
 - 2. **Install with pressure wedges and spacers.**

3.04 CLEANING AND PROTECTION

- A. Cleaning: Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
 - 1. Remove latex-Portland cement grout residue from tile as soon as possible.
 - 2. Unglazed tile may be cleaned with acid solutions only when permitted by tile and grout manufacturer's printed instructions, but no sooner than 14 days after

- installation. Protect metal surfaces, cast iron, and vitreous plumbing fixtures from effects of acid cleaning. Flush surface with clean water before and after cleaning.
3. Remove any temporary protective coating by method recommended by coating manufacturer that is acceptable to ceramic granite tile and grout manufacturer. Trap and remove coating to prevent it from clogging drains.
- B. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, un-bonded, and otherwise defective tile work.
- C. Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer that ensures that tile is without damage or deterioration time of Substantial Completion.
1. When recommended by tile manufacturers, apply a protective coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear.
 2. Prohibit foot and wheel traffic from tiled floors for at least 7 days after grouting is completed.
- D. Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.
- E. Ceramic tile installation in (wet areas) shall be allowed to dry out thoroughly (minimum of 14 days) before use. Comply with directions of the grout manufacturer.

END OF SECTION 09300

SECTION 09511
SUSPENDED CEILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Suspended metal grid ceiling system.
- B. Acoustical tile.

1.02 SYSTEM DESCRIPTION

- A. Install system capable of supporting imposed loads to a deflection of 1/360 maximum.
- B. Installed System: Conform to UL rating and manufacturer's recommendations for ceiling and anchorage assembly.
- C. Conform to applicable code for fire rated assembly combustibility requirements for materials.

PART 2 PRODUCTS

2.02 NON-FIRE RATED LAY-IN ASSEMBLIES

-SUSPENSION SYSTEM

- A. Manufacturers:
 - 1. Armstrong, or equal
- B. Grid: Intermediate duty, non fire rated, 15/16" Exposed Tee: Baked polyester finish, exposed tee, all components must be interlocking and compatible with and installed as part of manufacturer's assembly. All components must be supplied and installed for application as detailed.
- C. Accessories: stabilizer bars, clips, splices, edge moldings, hold down clips, and other components required for suspended grid system in this application. Install R-11 batt insulation above ceiling tiles as indicated.
- D. Grid Finish and color: Selected by Architect.
- E. Support Channels and Hangers: as required for given system and application.

STANDARD CEILING TILE

- ACT 1 -** Armstrong Fine Fissured Hi NRC .70 (#1713) or .75 (#1754) rectangular lay-in.
Size: 24" x 24" x 5/8" inches
Surface Finish: medium texture, white.
Edge: Square

2.03 GYPSON BOARD CEILINGS

-SUSPENSION SYSTEM

- A. Manufacturers:
 - 1. US Gypsum – DONN brand
- B. Grid: The DONN RIGID X, Drywall Suspension System by USG corporation as designed for direct screw attachment of gypsum board. System includes: round top main tees, cross channels, cross tees, mouldings, hanger wire, etc. All components must be supplied and installed to form a complete system. The system must carry a UL rating of One (1) hour for this application and conditions.
- C. Accessories: main tees, cross channels, cross tees, stabilizer bars, clips, splices, edge or channel moldings, hold down clips, hanger wire, and other components required for suspended system in this application.
- D. Grid Finish: N/A
- E. Support Channels and Hangers: as required for given system and application to meet load requirements and rating requirements.

-CEILING

US GYPSUM

- 5/8" Type X gypsum board, two layers. (see finish schedule for additional requirements – for example, water resistant gypsum board in "wet" areas)
- Size: see ceiling plan and finish schedule for areas
- Surface Finish: painted.
- Edge: N/A

3.01 EXAMINATION

- A. Verify that layout of hangers will not interfere with other work.

3.02 INSTALLATION - SUSPENSION SYSTEM

- A. Install system in accordance with ASTM C636, manufacturer's instructions and details.
- B. Coordinate the location of hangers with other work. Where components prevent the regular spacing of hangers, reinforce the system to span the extra distance.
- C. Hang system independent of walls, columns, ducts, pipes and conduit.
- D. Locate system on room axis according to reflected ceiling plan, and ceiling details.
- E. Install edge molding at intersection of ceiling and vertical surfaces, using longest practical lengths.
- F. Install galvanized, non-corrosive system in high humidity areas as directed. Size, type and components to suit application.
- G. Install above ceiling insulation as required by UL assembly and details

3.03 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units level, free from damage, twist, warp or dents.

3.04 TOLERANCES

- A. Variation from Flat and Level Surface: 1/8 inch in 10 feet

END OF SECTION

SECTION 09650

RESILIENT FLOOR TILE AND ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Resilient tile flooring.
- B. Rubber base, stair treads, stair risers, stair stringer and landings, transitions and accessories necessary for a complete installation.

1.02 SYSTEM DESCRIPTION

- A. Floor Materials: Conform to applicable code (most current revision) for flame/smoke rating requirements in accordance with ASTM E84 and/or ASTM 622.
- B. Rubber Accessories: Conform to most recent ASTM standards, ADA standards and slip resistance recommendations, Class 1 fire rating.
- C. Substrate Preparation: Conform to Standard Practice for Preparing Concrete Floors to Receive Resilient Floor – ASTM F 710.

PART 2 PRODUCTS

2.01 TILE MATERIALS

- A. Vinyl Composition Tile:
 - 1. Size: 12 x 12inch
 - 2. Thickness: 1/8 inch
 - 3. Design: **Standard**
 - 4. Manufacturers:
Armstrong
Or Approved Equal
- B. VCT #1: Premium Crown Texture VCT
 - 1. Size: 12 x 12inch
 - 2. Thickness: 1/8 inch
 - 3. Color: To be selected by architect.

2.02 RUBBER MATERIALS

- A. Base: Rubber; top set covered w/ pre-molded thermoset external corners:
 - 1. Height: 6 inch
 - 2. Thickness: 1/8
 - 3. Manufacturers:
 - a) Johnsonite
 - b) Flexco
 - c) Roppe.
 - 4. Rolled products only. No joints mid wall will be allowed.
- C. Base and Accessories: Pre-molded end stops, transitions and external corners, of same material, size, and color as base (unless as otherwise required).

- D. Miscellaneous accessories: Provide and install accessories (termination strips, stops, transitions, thresholds, etc.) as necessary for a complete and finished installation. Color by Architect, unless otherwise requested (or in some renovation situations, to match existing).
- D. Stair Treads, Risers and Landing Tile: 3/16" Rubber, Heavy duty diamond textured, with adjustable, square nose. Supply and install in dimensions to meet tread/landing requirements. Color by Architect.

2.03 ACCESSORIES

- A. Sub-floor Filler: type recommended by floor material manufacturer.
- B. Self-leveling Concrete Floor Underlayment: "Level-Right" by Masson Corp. type and application as recommended for sub-floor construction and existing conditions.
- C. Primers and Adhesives: Waterproof, type recommended by floor material manufacturer.
- D. Sealer and Wax: Types recommended by floor material manufacturer **and as required by the University (verify University requirements with Architect), three coats required.**

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify concrete floors are dry to a maximum moisture content as recommended (by the tile manufacturer and the mastic manufacturer) and exhibit negative alkalinity, carbonization, or dusting. Perform proper calcium carbonate tests in the manner and number as recommended to properly ensure that the concrete has an acceptable moisture content. Supply the Architect with at copy of all test results.

Verify wood floor substrate to be rigid, free from movement, and all construction complies with manufacturer's requirements make all necessary corrections. Have required moisture barriers in place as required and ventilation as required.

In general, verify that surface is level and ready to receive tile. Clean any foreign material from surface. Remove and patch around any anchors in the floor. Apply approved leveling compound to correct any defects. Install a light weight concrete self leveling underlayment as necessary to correct: existing damaged areas, degraded areas, level floor or slope to accommodate a required condition. All existing conditions (required repair, leveling, sloping, etc.) are to be corrected prior to tile application.

- B. Fill local low spots and other defects with sub-floor filler. Apply as necessary to correct all sub-floor flaws that will affect the finished tile surface appearance and/or performance.
- C. Vacuum clean substrate.

3.02 INSTALLATION - TILE MATERIAL

- A. Install in accordance with manufacturer's instructions.
- B. Spread adhesive and set flooring in place. Press with heavy roller to attain full adhesion.
- C. Install tile flooring with joints and seams parallel to building lines. Allow minimum 1/2 full size tile width at room or area perimeter.

- D. Terminate flooring at centerline of door openings or where adjacent floor finish is dissimilar. Install edge/transition strips where flooring terminates. Coordinate color with Architect.
- E. Scribe flooring to appurtenances to produce tight joints.
- F. At movable partitions install flooring under partitions without interrupting floor pattern.
- G. Install to pattern developed by Architect. See details.

3.03 INSTALLATION - BASE MATERIAL

- A. Adhere base tight to wall and floor surfaces.
- B. Fit joints tight and vertical. Miter internal corners. At external corners, use pre-molded thermoset units matching in finish and texture from same manufacturer as wall base.

3.04 CLEANING

- A. Remove excess adhesive from surfaces without damage.
- B. Clean, seal, and wax surfaces in accordance with manufacturer's instructions.

3.05 PROTECTION

- A. Protect installed product and finish surfaces from damage during construction. Keep foot traffic, furniture, etc. off of floor as recommended by the manufacturer.

END OF SECTION

SECTION 09681

CARPET

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Carpet tile placed with glue down method.
- B. Base finish.
- C. Accessories.

1.02 REFERENCES

- A. ASTM D2859 - Test Method for Flammability of Finished Textile Floor Covering Materials.
- B. ASTM E84 - Surface Burning Characteristics of Building Materials.
- C. ASTM E648 - Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
- D. NFPA 253 - Test for Critical Radiant Flux of Floor Covering Systems.

1.03 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- C. Samples: Submit one sample 24 x 24 inch in size illustrating color and pattern for each carpet material specified.
- D. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention for conditions in this project.

1.04 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing specified carpet tile with minimum three years documented experience.
- B. Installer: Company specializing in installing carpet with minimum three years documented experience.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame/smoke rating requirements of in accordance with ASTM E84.
- B. Conform to NFPA 253 and ASTM E648 Class for flooring radiant panel test.
- C. Conform to ASTM D2859 for surface flammability ignition test.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Store materials for 3 days prior to installation in area of installation to achieve temperature stability.
- B. Maintain minimum 70 degrees F ambient temperature 3 days prior to, during and 24 hours after installation.

1.07 MAINTENANCE DATA

- A. Submit under provisions of Section 01700.
- B. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

1.08 EXTRA MATERIAL

- A. Furnish under provisions of Section 01700.
- B. Provide five per cent overage of carpeting of each type, color, and pattern specified.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS - CARPETING

- A. Shaw (carpet tile type #1)**
- B. Or approved equal.**

2.02 MATERIALS – CARPET

A. Carpet Tile #1:

- a. Manufacturer: Shaw Contract Group, Style: Diffuse (Modular)
- b. Multi-Level Pattern Loop
- c. Fiber: eco solution q nylon
- d. Backing: Ultraloc
- e. 100% solution dyed
- f. Gauge 1/12
- g. Stitches per inch 9.0
- h. Pile thickness 0.092
- i. Weight 16.0
- j. Density 6261
- k. Secondary backing ecoworx® tileWidth 24" x 24" (60.96 x 60.96 cm)
- l. Installation Quarter-turned, Shuffled (as specified by architect).
- m. Color: Disclose (13210) or from manufacturers' full color range.

PERFORMANCE RATINGS

NBS Smoke Density	Less than 450
Static	Less than 3.5 KV., Below the average level of human sensitivity
Flammability Rating	DCO FF1-70 (Passes)
Wear Warranty	10 years

2.03 ACCESSORIES

- A. Sub-Floor Filler: White premixed latex; type recommended by adhesive material manufacturer. Apply as necessary to correct all sub-floor flaws that will affect carpet appearance and/or performance. All application as recommended by manufacturer.
- B. Adhesive: Compatible with carpet tile material. As recommended by carpet tile manufacturer, Releasable type. Meet current ASTM and environmental standards. All application as recommended by manufacturer.
- C. Miscellaneous accessories: Provide and install accessories (termination strips, stops, transitions, thresholds) as necessary for a complete and finished installation. Color by Architect, unless otherwise requested (or in some renovation situations, to match existing).

Base: Rubber; top set covered w/ pre-molded thermoset exteriorl corners:

- 1. Height: 6 inch
- 2. Thickness: 1/8
- 3. Coiled / Rolled
- 4. Manufacturers:
 - a) Armstrong
 - b) Flexco
 - c) Roppe.

Base and Accessories: Pre-molded end stops, transitions, termination strips, external corners, etc.; of same material, size, and color as base (unless otherwise required).

Site formed external corners will not be allowed. Finish Matching thermoset exterior corners only. Rolled/Coiled base only.

Stair Treads, Stringer and Landing Tile: 3/16" Rubber, Heavy duty diamond textured, with adjustable, square nose. Supply and install in dimensions to meet tread/landing requirements.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are smooth and flat with maximum variation of 1/4 inch in 10 ft, and are ready to receive work make all corrections as recommended by manufacturer.
- B. Verify concrete floors are dry to a maximum moisture content of 7 percent; and exhibit negative alkalinity, carbonization, or dusting (or follow manufacturer's recommendations if more stringent).

3.02 PREPARATION

- A. Remove sub-floor ridges and bumps. Fill local low spots, cracks, joints, holes, and other defects with sub-floor filler. Remove and patch around any anchors in floor.
- B. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
- C. Vacuum clean substrate.

3.03 INSTALLATION

- A. Apply carpet tile and adhesive in accordance with manufacturers' instructions.
- B. Verify carpet color, texture and pattern match before cutting to ensure minimal variation between dye lots. Verify pattern direction and maintain/match pattern direction (unless otherwise noted or directed).
- C. Double cut carpet, to allow intended seam and pattern match. Make cuts straight, true, and unfrayed. Edge seam carpet at public areas.
- D. Locate seams in area of least traffic.
- E. Join seams by seam sealer approved by manufacturer. Form seams straight, not overlapped or peaked, and free of gaps.
- F. Lay carpet tight and flat on subfloor, well fastened at edges, with a uniform appearance. Provide monolithic color, pattern, and texture match within any one area.
- G. Do not change run of pile in any room where carpet is continuous through a wall opening into another room. Locate change of color or pattern between rooms under door centerline.
- H. Cut and fit carpet around interruptions.
- I. Bind cut edges where not concealed by edge strips.
- J. Fit carpet tight to intersection with vertical surfaces without gaps.
- K. Where wall bases are scheduled, cut carpet tight to walls. Fit carpet tight to vertical interruptions, leaving no gaps.
- L. Install termination strips at seams between carpet and non-carpeted floors, as directed.
- M. **Install new termination strips, stops, transitions, thresholds, etc. for a complete finished installation.** Do not end splice transition strips.
- N. **General contractor to provide additional stock pile of each carpet type. For each carpet tile type, the general Contractor shall provide 50 carpet tiles (per type).**

3.04 CLEANING

- A. Clean work under provisions of 01700.
- B. Remove excess adhesive without damage, from floor, base, and wall surfaces.
- C. Clean and vacuum carpet surfaces.
- C. Clean accessories free from dust, glue, or scuffs.

3.05 SCHEDULE

For complete locations see finish schedule and drawings.

END OF SECTION

SECTION 09900

PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation and field application (non-factory applied) of paints and coatings.

1.02 SYSTEM DESCRIPTION

- A. Finish Materials: Conform to applicable code for flame/smoke rating requirements.

1.03 ENVIRONMENTAL REQUIREMENTS

- A. Store and apply materials in environmental conditions required by manufacturer's instructions.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Manufacturers:
 - 1. ***Sherwin Williams – Promar 200, unless a specific product is recommended by the manufacturer of a particular product or stated otherwise in the schedule at the end of this section.***
 - 2. or Approved Equal
- B. Coatings: Ready mixed except field catalyzed coatings of good flow and brushing properties, capable of drying or curing free of streaks or sags formulated specifically for the required application.
- C. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required and/or recommended by manufacturer to achieve the finishes specified.
- D. Products: Some surfaces and materials may require a specialty (or a different line of paint). This depends on the material being coated and the variation in the line of paint products of the approved manufacturer.

2.02 FINISHES

- A. Refer to schedule at end of section for surface finish schedule. Follow any additional recommendations for all products/materials being painted.
- B. See drawings and finish schedule for finishes required for specific assemblies, surfaces and areas.

PART 3 EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify that substrate conditions are ready to receive work.

- B. Measure moisture content of porous surfaces using an electronic moisture meter. Do not apply finishes unless moisture content is less than 12 percent minimum; or, lower if recommended for a particular substrate or paint product being used.
- C. Correct defects and clean surfaces which affect work of this Section.
- D. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing. Clean and remove any paint that is on these items before re-installing.
- E. Gypsum Board Surfaces: Fill defects with latex compounds as recommended by the paint manufacturer for the particular application . Spot prime defects after repair.
- F. Interior Concrete Floor Surfaces Scheduled to Receive Paint Finish: Remove foreign matter. Remove oil, grease, dirt, dust, soap, wax , etc. with a solution of tri-sodium phosphate or as recommended by concrete floor paint manufacturer. Rinse well and allow to dry.
- G. Uncoated Ferrous Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Apply primer after repairs before finish coat(s).
- H. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust, hand clean, clean surfaces with solvent. Apply primer to bare or damaged steel surfaces.
- I. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, sappy sections , etc. with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.
- J. Exterior Wood Items Scheduled to Receive Paint (including dormer siding, roof soffits, windows and trim, doors and trim, louvers, and standing and running trim, etc.): Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections, etc. with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Otherwise, prepare as recommended by primer manufacturer.
- K. Portland Cement Plaster (Stucco): Allow freshly applied stucco to cure for the number of days recommended by stucco paint (coating) manufacturer. Clean existing stucco surfaces thoroughly, removing all dust, dirt and loose mortar with wire brush. Treat any mildew or efflorescence per paint manufacturer's instructions. All surfaces must be free of oil and grease.
- L. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove foreign matter and debris. Remove all oil, grease, wax, etc. with a solution of tri-sodium phosphate , or a preparation product recommended by primer/paint manufacturer, rinse well and allow to dry.
- M. For all materials, surfaces objects: follow the manufacturer's recommendations for surface preparation for the material being painted taking into consideration the given (existing) conditions. Follow all preparation steps; verify that all conditions are as required. Make all necessary corrections as recommended, and use all recommended accessory materials in order to properly prepare the surfaces.

3.02 APPLICATION

- A. Apply products in accordance with manufacturer's instructions on surfaces prepared per manufacturer's instructions. Follow all manufacturers' environmental recommendations (temperature, humidity, etc.) Protect equipment, fixtures, machinery, adjacent finishes, etc. from overspray, splatter, and fall out. Clean all affected work as requested.
- B. Sand transparent finishes lightly between coats to achieve required finish.
- C. Where clear finishes are required, tint fillers to match wood.
- D. Where painted finishes are required on interior millwork, wainscot, moulding assemblies, and other interior wood details; all coats of primer and paint on these surfaces will be spray applied.
- E. When "dry fall" paints are approved to be used (typically to paint exposed structure and/or other areas to be masked or "blacked out") as with all coatings, the manufacturers recommendations are to be followed for preparation. Note that "dry fall" paint is particularly affected by temperature and humidity and the manufacturer's guidelines should be followed closely. It is the Contractor's responsibility to protect all finishes, fixtures, and equipment from the fall out from this paint. Clean up all dry fall as recommended so that it does not accumulate and affect any other materials or surfaces.

3.03 CLEANING

- A. As work proceeds, promptly remove finishes where spilled, splashed, or spattered.

3.04 SCHEDULE - EXTERIOR SURFACES

- A. Steel - Shop Primed:
 - 1. Touch-up with alkyd primer.
 - 2. Two coats of alkyd enamel, semi-gloss.
- B. Steel - Unprimed:
 - 1. One coat alkyd primer.
 - 2. Two coats alkyd enamel, semi-gloss.
- C. Wood:
 - 1. Seal any knots or traces of sap.
 - 2. Prime with one coat of approved oil-based (alkyd) primer.
 - 3. Finish with two coats of semi-gloss, exterior acrylic enamel.
- D. Concrete and Unit Masonry:
 - 1. First coat: "Loxon XP" waterproofing System, A24 Series
 - 2. Second coat: "Loxon XP" waterproofing System, A24 Series, brush- or roller-applied.
- E. Portland Cement Plaster (Stucco)
 - 1. Two coats UGL "Drylok" stucco paint.
- F. See finish schedule, other specification sections and drawings for additional information and specific information.

3.05 SCHEDULE - INTERIOR SURFACES

- A. Wood – Opaque (paint) finish:
 - 1. Filler coat after any required patching (open grained wood only).
 - 2. One coat latex primer.
 - 3. One coat latex.
- B. Wood - Transparent:
 - 1. Filler coat (for open grained wood only).
 - 2. Two coats of stain.
 - 3. One coat of sealer.
 - 4. Two coats of varnish, satin.
- C. Steel - Unprimed:
 - 1. One coat alkyd primer.
 - 2. Two coats alkyd enamel, semi-gloss.
- D. Steel - Primed:
 - 1. Touch-up with original primer.
 - 2. Two coats alkyd enamel, semi-gloss.
- E. Portland Cement Plaster (Stucco)
 - 1. Two coats UGL “Drylok” stucco paint.
- F. Concrete Floors:
 - 1. First coat: “Drylok” concrete floor paint, brush-applied; semi-gloss.
 - 2. Second coat: “Drylok” concrete floor paint, brush- or roller-applied; semi-gloss.
- G. Gypsum Board:
 - 1. 1 coat of latex primer.
 - 2. 2 coats of interior latex,
(eggshell for typical application, semi-gloss for restrooms, janitor, wet areas, etc.)
- H. Concrete Masonry Units:
 - 1. 1 coat of interior masonry primer
 - 2. 2 coats of interior latex, typically semi gloss
- I. See finish schedule, other specification sections and drawings for additional information and specific instructions.
- J. Review of all wall surfaces will be from a proximity close to 39” from surface, holidays, streaks, drips, ghosting, debris in paint, dirt, scuffs, and over rolling to adjacent surfaces will not be allowed.

END OF SECTION 09900