DIVISION 9 FINISHES

SECTION 09260 GYPSUM BOARD SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Gypsum board and joint treatment.

B. Metal stud wall framing.

C. Gypsum board ceiling framing system.

1.2 RELATED SECTIONS

A. Section 06114 – Wood Blocking and Curbing: Wood blocking for support of washroom accessories.

A. Section 07241 - Exterior Insulation and Finish System.

B. Section 09511- Suspended Acoustic Ceiling: Fire rated suspension system for gypsum board.

1.3 REFERENCES

A. ASTM C36 - Standard Specification for Gypsum Wallboard.

B. ASTM C79 - Standard Specification for Gypsum Sheathing Board.

C. ASTM C442 - Standard Specification for Gypsum Backing Board and Coreboard.

D. ASTM C475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.

E. ASTM C514 - Standard Specification for Nails for the Application of Gypsum Wallboard.

F. ASTM C630 - Standard Specification for Water-Resistant Gypsum Backing Board.

G. ASTM C636 - Installation of Metal Ceiling Suspension System For Acoustical Tile and Lay-In Panels.

H. ASTM C645 - Standard Specification for Non-Load (Axial) Bearing Steel Studs, Runners (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.

I. ASTM C665 - Standard Specification for Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.

J. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.

K. GA-201 - Using Gypsum Board for Walls and Ceilings.

L. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board.

M. UL - Fire Resistance Directory.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with ASTM C840.

B. Applicator Qualifications: Company specializing in performing the work of this section with minimum 5 years experience.

1.5 REGULATORY REQUIREMENTS

A. Conform to applicable code for fire rated assemblies as follows:
1. Fire Rated Partitions: Listed assembly by UL.
2. Fire Rated Ceiling and Soffits: Listed assembly by UL.
3. Fire Rated Structural Column Framing: Listed assembly by UL.
4. Fire Rated Structural Beam Framing: Listed assembly by UL.

PART 2 PRODUCTS

2.1 MANUFACTURERS - GYPSUM BOARD SYSTEM

A. Gold Bond Building Products, National Gypsum Company

B. Domtar Gypsum

C. USG Corporation, United States Gypsum Company

D. Substitutions: Refer to Section 01600 - Material and Equipment.

2.2 FRAMING MATERIALS

A. Studs and Tracks: ASTM C645; galvanized sheet steel, 0.036-inch thick, C shape, with knurled faces.

B. Furring, Framing, and Accessories: ASTM C645.

C. Fasteners: ASTM C1002.

D. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

E. Adhesive: ASTM C557.

2.3 GYPSUM BOARD MATERIALS

A. Standard Gypsum Board: ASTM C36; 5/8-inch thick, maximum available length in place; ends square cut, tapered and beveled edges.

B. Fire Rated Gypsum Board: ASTM C36; fire resistive type, UL or WH rated; 5/8 inch thick, maximum available length in place; ends square cut, tapered and beveled edges.

C. Gypsum Sheathing Board (stucco substrate): ASTM C-1177; moisture resistant; ½ inch thick; maximum available size in place; ends square cut; glass mat facings; treated gypsum core.

D. Gypsum Sheathing Board: ASTM C79; moisture resistant type ½ inch thick, maximum available size in place; ends square cut, square edges; water repellent paper faces.

E. Moisture Resistant Gypsum Board: ASTM C 630, ½ inch thick, at restrooms and janitor closet.

F. Exterior Gypsum Soffit Board: ASTM C 931, ½ inch thick.

2.4 MANUFACTURERS - CEILING FRAMING SYSTEMS:

A. Armstrong: HD Drywall Furring System as specified in Section 09511

2.5 ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced, thick.

B. Acoustic Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board as recommended by gypsum board manufacturer.

C. Corner Beads: Metal.

D. Edge Trim: GA-201 and GA-216; Type L bead.

E. Joint Materials: ASTM C475; reinforcing tape, joint compound, adhesive, and water.

F. Fasteners: ASTM C1002, Type S12.

G. Linear Soffit Vents: 2 ½ inch vent by Air Vent, Incorporated; white painted aluminum with insect screen, eight foot sections.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.

B. Verify that site conditions are ready to receive work and opening dimensions are as instructed by the manufacturer.

3.2 METAL STUD INSTALLATION

A. Install studs in accordance with ASTM C754.

B. Metal Stud Spacing: 16 inches on center.

C. Refer to Drawings for indication of partitions extending stud framing through the ceiling to the structure above. Maintain clearance under structural building members to avoid deflection transfer to studs. Provide extended leg ceiling runners.

D. Door Opening Framing: Install double studs at door frame jambs. Install stud tracks on each side of opening, at frame head height, and between studs and adjacent studs.

E. Blocking: Bolt or screw steel channels to studs. Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, marker boards and tack boards.

3.3 WALL FURRING INSTALLATION

A. Erect wall furring for direct attachment to walls.

B. Erect furring channels vertically; space maximum 16 inches oc, not more than 4 inches from abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.

3.4 FURRING FOR FIRE RATINGS

A. Install furring as required for fire resistance ratings indicated.

3.5 CEILING FRAMING INSTALLATION

A. Install in accordance with manufacturer's instructions and ASTM C636.

B. Coordinate location of hangers with other work.

C. Install ceiling framing independent of walls, columns, and above ceiling work.

D. Reinforce openings in ceiling suspension system which interrupt main runners, with lateral bracing.

E. Laterally brace entire suspension system.

3.6 ACOUSTIC ACCESSORIES INSTALLATION

A. Place acoustic insulation in partitions tight within spaces, around cut openings, behind and around electrical and mechanical items within or behind partitions, and tight to items passing through partitions.

B. Install acoustic sealant within partitions in accordance with manufacturer's instructions.

C. Install acoustic sealant at gypsum board perimeter at:
1. Metal Framing: Two beads.
2. Base Layer.
3. Face Layer.
4. Chalk all penetrations of partitions by conduit, pipe, duct work, and rough-in boxes.

3.7 GYPSUM BOARD INSTALLATION

A. Install gypsum board in accordance with manufacturer's instructions.

B. Erect single layer standard gypsum board in most economical direction, with ends and edges occurring over firm bearing.

C. Erect single layer fire rated gypsum board, with edges and ends occurring over firm bearing.

D. Erect exterior gypsum sheathing horizontally, with edges butted tight and ends occurring over firm bearing.

E. Use screws when fastening gypsum board to metal furring or framing.

F. Erect exterior gypsum soffit board perpendicular to supports, with staggered end joints over supports.

G. Treat cut edges and holes in [moisture resistant gypsum board] [and] [exterior gypsum soffit board] with sealant.

H. Place control joints consistent with lines of building spaces [as indicated.] [as directed.]

I. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials as indicated.

3.8 JOINT TREATMENT

A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.

B. Feather coats on to 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, and where will not be the finished surface.

END OF SECTION

SECTION 09300 TILE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Ceramic tile for floor and wall applications.

B. Thresholds at door openings.

C. Ceramic accessories.

1.2 RELATED SECTIONS

A. Section 03346 - Concrete Floor Finishing: Troweling of floor slab for tile application.

B. Section 07900 - Joint Sealers.

1.3 REFERENCES

A. ANSI A108 Series/A118 Series/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium of the following)

B. ANSI A118.1 - Dry-Set Portland Cement Mortar (not published separately).

C. ANSI A118.3 - Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy and Water Cleanable Tile Setting Epoxy Adhesive (not published separately).

D. ANSI A118.4 - Latex-Portland Cement Mortar (not published separately).

E. ANSI A118.6 - Ceramic Tile Grouts (not published separately).

F. ANSI A137.1 - American National Standard Specifications for Ceramic Tile.

G. TCA - (Tile Council of America) Handbook for Ceramic Tile Installation.

1.4 SUBMITTALS FOR INFORMATION

A. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

1.5 SUBMITTALS AT PROJECT CLOSEOUT

A. Section 01700 - Contract Closeout: Procedures for close-out submittals.

B. Maintenance Data: Include recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.

1.6 QUALITY ASSURANCE

A. Maintain one copy of TCA Handbook and ANSI A108 Series/A118 Series on site.

B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

C. Installer Qualifications: Company specializing in performing the work of this section approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Section -01650 - Material and Equipment: Transport, handle, store, and protect products.

B. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not install adhesives in an unventilated environment.

B. Maintain ambient and substrate temperature of 50 degrees F during installation of mortar materials.

PART 2 PRODUCTS

2.1 CERAMIC TILE MATERIALS

A. Ceramic Wall Tile: ANSI A137.1, conforming to the following:
1. Moisture Absorption: 0 to 16 percent.
2. Size: 4 ¼ x 4 ¼ x 5/16 inch.
3. Shape: Square.
4. Edge: Cushioned.
5. Surface Finish: semi-gloss
6. Color: as selected by Architect or as noted on drawings.

B. Ceramic Mosaic Floor Tile: ANSI A137.1, conforming to the following:

1. Moisture Absorption: 0 to 0.3 percent.
2. Size: 2 x 2 x 5/16 inch
3. Shape: Square.
4. Edge: Square.
5. Surface Finish: ADA slip resistant
6. Color: as selected by Architect or as noted on drawings.
7. Pattern: as selected by Architect

C. Base:

1. Length: Tile Length 4-1/2 inches.
2. Height: 4-1/2 inch.
3. Top Edge: Square.
4. Internal Corner: Cove.
5. External Corner: Bullnosed.
6. Moisture Absorption: 0 to 0.5 percent.
7. Surface Finish: Match wall tile.
8. Color: Match wall tile.

D. Quarry Tile: ANSI A137.1, conforming to the following:

1. Moisture Absorption: 0 to 3 %
2. Size: 8" x 8" x ½"
3. Coefficient of friction: Wet less than or equal to 0.70; Dry less than or equal to 0.70.
4. Surface Finish: Abrasive grain.
5. MOH"s: 9.0
6. Shade Variation: Medium (V2).
7. Grout Width: 3/8"
8. Color: Blaze Flash (2)
9. Manufacture / Product: Daltile / Quarry.

2.2 ADHESIVE MATERIALS

A. Epoxy Adhesive: ANSI A118.3, thinset bond type.

B. Tile Setting Adhesive: Elastomeric, waterproof, liquid applied.

2.3 MORTAR MATERIALS

A. Mortar Bed Materials: Portland cement, sand, latex additive, and water.

B. Mortar Bond Coat Materials:
1. Dry-Set Portland Cement type: ANSI A118.1.
2. Latex-Portland Cement type: ANSI A118.4.

2.4 GROUT MATERIALS

A. Standard Grout: Latex-Portland cement type as specified in ANSI A118.6.

2.5 ACCESSORY MATERIALS

A. Thresholds: Marble type white color, honed finish, 3 ½ inches X ¾ inches X full width of wall or frame opening one piece, bevel both sides, radiused edges from bevel to vertical face.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01039- Coordination and Meetings: Verification of existing conditions before starting work.

B. Verify that surfaces are ready to receive work.

3.2 PREPARATION

A. Protect surrounding work from damage.

B. Vacuum clean surfaces and damp clean.

3.3 INSTALLATION - GENERAL

A. Install tile, and grout in accordance with applicable requirements of ANSI A108.1 through A108.10, manufacturer's instructions, and TCA Handbook recommendations.

B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.

C. Place edge strips at exposed tile edges.

D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.

E. Form internal angles square and external angles bullnosed.

F. Install ceramic accessories rigidly in prepared openings.

G. Sound tile after setting. Replace hollow sounding units.

H. Keep control joints free of adhesive or grout. Apply sealant to joints.

I. Allow tile to set for a minimum of 48 hours prior to grouting.

J. Grout tile joints. Use standard grout unless otherwise indicated.

K. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

3.4 INSTALLATION - FLOORS - THIN-SET METHODS

A. Over interior concrete substrates, install in accordance with TCA Handbook Method F113, dry-set or latex-portland cement bond coat, with standard.

3.5 INSTALLATION - WALL TILE

A. Over gypsum wallboard on wood or metal studs install in accordance with TCA Handbook Method W243, thin-set with dry-set or latex-portland cement bond coat, unless otherwise indicated.

3.6 CLEANING

A. Section 01700 - Contract Closeout: Cleaning installed work.

B. Clean tile and grout surfaces.

3.7 PROTECTION OF FINISHED WORK

A. Section 01700 - Contract Closeout: Protecting installed work.

B. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

SECTION 09511 SUSPENDED ACOUSTIC CEILINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Suspended metal grid ceiling system and perimeter trim.

B. Acoustic tile.

1.2 RELATED SECTIONS

A. Section 09260 - Gypsum Board Systems: Gypsum board ceiling.

B. Section 15940 - Air Outlets and Inlets: Air diffusion devices in ceiling system.

C. Section 16510 - Interior Luminaires: Light fixtures in ceiling system.

D. Section 16721 - Fire Alarm Systems: Fire alarm components in ceiling system.

E. Section 16770 - Public Address and Music System: Speakers in ceiling system.

1.3 REFERENCES

A. ASTM C635 - Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.

B. ASTM E1264 - Classification of Acoustical Ceiling Products.

1.4 SYSTEM DESCRIPTION

A. Suspension System: Rigidly secure acoustic ceiling system including integral mechanical and electrical components with maximum deflection of 1:240.

1.5 SUBMITTALS FOR INFORMATION

A. Section 01300 - Submittals: Procedures for submittals.

B. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.6 QUALITY ASSURANCE

A. Conform to CISCA requirements.

B. Grid Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

C. Acoustic Unit Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Material and Equipment: Environmental conditions affecting products on site.

B. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustic unit installation.

1.8 PROJECT CONDITIONS

A. Section 01039 - Coordination and Meetings.

B. Sequence work to ensure acoustic ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.

C. Install acoustic units after interior wet work is dry.

PART 2 PRODUCTS

2.1 SUSPENSION SYSTEM MATERIALS ACOUSTIC TILE

A. Manufacturers:
1. Armstrong. Style: Prelude MX Fire Guard.
2. Substitutions: Refer to Section 01600 - Material and Equipment.

B. Fire Rated Grid: ASTM C635, intermediate duty; exposed T; components die cut and interlocking.

C. Grid Materials: Commercial quality cold rolled steel with galvanized coating.

D. Exposed Grid Surface Width: 15/16 inch.

E. Grid Finish: White.

F. Accessories: Stabilizer bars, clips, splices, perimeter moldings and hold down clips required for suspended grid system.

G. Support Channels and Hangers: Galvanized steel; size and type to suit application and ceiling system flatness requirement specified.

2.2 SUSPENSION SYSTEM MATERIALS GYPSUM BOARD

A. Manufactures:

1. Armstrong: Drywall, Stucco, and Plaster Fire Guard Grid System.
2. Substitutions: Refer to Section 01600 - Material and Equipment.

B. Fire Rated Grid: ASTM C635, heavy duty; T; components die cut and interlocking.

C. Grid Materials: Commercial quality cold rolled steel with galvanized coating.

D. Grid Surface Width: as recommended by manufacture for application.

E. Accessories: Stabilizer bars, clips, splices, perimeter moldings and hold down clips required for suspended grid system.

F. Support Channels and Hangers: Galvanized steel; size and type to suit application and ceiling system flatness requirement specified.

2.2 ACOUSTIC UNIT MATERIALS

A. Manufacturers:
1. Armstrong
2. Substitutions: Refer to Section 01600 - Material and Equipment.

B. Acoustic Panels: ASTM E1264, Armatuff Fire Guard # 862, conforming to the following:

1. Size: 24 x 48 inches
2. Thickness: 3/4 inches
3. Composition: Mineral.
4. Light Reflectance: 0.85 percent actual LR
5. NRC Range: 0.50
6. Fire Hazard Classification: Fire Guard
7. Edge: Square
8. Surface Color: White

2.3 GYPSUM PANELS

A. Manufacturers:
1. United States Gypsum Company.
2. Substitutions: Refer to Section 01600 - Material and Equipment.

B. Vinyl Faced Gypsum Panels: ASTM C 960, conforming to the following:

1. Size: 24 x 48 inches
2. Thickness: 1/2 inches
3. Composition: Firecode core where indicated on drawings.
4. Edge: Square
5. Surface Color: as selected from manufactures standard colors

2.4 ACCESSORIES

A. Touch-up Paint: Type and color to match acoustic and grid units.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.

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

3.2 INSTALLATION -GRID SUSPENSION SYSTEM

A. Install suspension system in accordance with manufacturer's instructions and as supplemented in this section.

B. Install system capable of supporting imposed loads to a deflection of 1/240 maximum.

C. Locate system on room axis according to reflected plan.

D. Install after major above ceiling work is complete. Coordinate the location of hangers with other work.

E. Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.

F. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

G. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

H. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support fixture loads by supplementary hangers located within 6 inches of each corner; or support components independently.

I. Do not eccentrically load system, or produce rotation of runners.

J. Perimeter Molding:
1. Install edge molding at intersection of ceiling and vertical surfaces.
2. Use longest practical lengths.
3. Miter corners.
4. Provide at junctions with other interruptions.

3.3 ERECTION TOLERANCES

A. Section 01400 - Quality Control: Tolerances.

B. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.

C. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION

SECTION 09650 RESILIENT FLOORING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Resilient tile flooring.

B. Resilient base.

1.2 RELATED SECTIONS

A. Section 09300 Tile: Joint stepless transitions.

B. Section 16130-Boxes: Electrical floor cover plates for installation of resilient flooring specified in this section.

1.3 REFERENCES

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

B. ASTM E662 - Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.

C. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile.

1.4 PERFORMANCE REQUIREMENTS

A. Conform to applicable code for fire performance ratings as follows:
1. Flame spread: Maximum 75, per ASTM E84.
2. Smoke developed: Maximum 450, per ASTM E84.
3. Smoke density: Maximum 450, per ASTM E662.

1.5 SUBMITTALS AT PROJECT CLOSEOUT

A. Section 01700 - Contract Closeout: Procedures for submittals.

B. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.6 DELIVERY, STORAGE, AND PROTECTION

A. Section 01600 - Material and Equipment: Transport, handle, store, and protect products.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

B. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 PRODUCTS

2.01 MATERIALS - TILE FLOORING

A. Vinyl Composition Tile: ASTM F1066, Comp.1, Class 1 – solid color:

1. Size: 12 x 12 inch or as noted on drawing.
2. Thickness: 0.125 inch.
3. Pattern: Excelon
4. Color: as noted on drawings or as selected by Architect.
4. Manufacturers: Armstrong

2.02 MATERIALS - BASE

A. Base: Rubber; top set coved:
1. Height: 4 inch.
2. Thickness: 0.080 inch.
3. Finish: Matte.
4. Length: 120' Roll.
5. Accessories: Premolded external corners, internal corners, end stops.
6. Manufacturers: IPC, InPro Corporation; 1-800-543-1729.

2.03 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

B. Floor Adhesives: premix latex; type recommended by adhesive material manufacturer for surface over, which floor material will be installed.

C. Tread Adhesives: premix latex; type recommended by adhesive material manufacturer for surface over which tread material will be installed.

D. Base Adhesives: water-soluble fortified polymer emulsion; type recommended by adhesive material manufacturer for surface over which base material will be installed.

E. Primers: Waterproof; types recommended by flooring manufacturer.

F. Moldings and Edge Strips: Same material as flooring; resilient to carpet transition #68 manufactured by Flexco Company.

G. Sealer and Wax: Types recommended by flooring manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that concrete floors are dry to a maximum moisture content of 7 percent, and exhibit negative alkalinity, carbonization, and dusting.

B. Verify floor and lower wall surfaces are free of substances that may impair adhesion of new adhesive and finish materials.

3.2 PREPARATION

A. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.

B. Prohibit traffic until filler is cured.

C. Clean substrate.

D. Apply primer as required to prevent "bleed-thru" or interference with adhesion by substances that cannot be removed.

3.3 INSTALLATION - TILE FLOORING

A. Install in accordance with manufacturer's instructions.

B. Mix tile from container to ensure shade variations are consistent when tile is placed.

C. Spread only enough adhesive to permit installation of materials before initial set.

D. Set flooring in place, press with heavy roller to attain full adhesion.

E. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern.

F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

G. Where floor finishes are different on opposite sides of door, terminate flooring under centerline of door.

H. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.

I. Install flooring in recessed floor access covers. Maintain floor pattern.

J. At movable partitions, install flooring under partitions without interrupting floor pattern.

K. Install feature strips where indicated. Fit joints tightly.

3.4 INSTALLATION - BASE

A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.

B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.

C. Install base on solid backing. Bond tightly to wall and floor surfaces.

D. Scribe and fit to door frames and other interruptions.

3.5 CLEANING

A. Section01700 - Contract Closeout: Cleaning installed work.

B. Remove excess adhesive from floor, base, and wall surfaces without damage.

C. Clean, seal, and wax resilient flooring products in accordance with manufacturer's instructions.

3.6 PROTECTION OF FINISHED WORK

A. Section01700- Contract Closeout: Protecting installed work.

B. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION

SECTION 09840 ACOUSTICAL WALL TREATMENT (CEMENTITIOUS WOOD FIBER WALL PANELS)

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Cementitious wood fiber plank acoustical Wall panel system and installation accessories.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):
1. ASTM C635 Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
2. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
3. ASTM E1264 Standard Classification for Acoustical Ceiling Products.

B. Ceilings and Interior Systems Construction Association (CISCA).
1. CISCA Code of Practices.

1.3 SYSTEM DESCRIPTION

A. Performance Requirements:
1. Provide acoustical wall panel assembly designed and tested to provide surface burning characteristics (ASTM E84) as follows:
   a. Flamespread: 25 or less.
   b. Smoke Developed: 450 or less.
2. Provide acoustical wall panel system which has been manufactured, fabricated and installed to provide Noise Reduction Coefficient (NRC) rating as follows:
   a. NRC rating .55.

1.4 SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B. Product Data: Submit manufacturer's product data and installation instructions.
1. Recommended procedures for normal cleaning and removal of stains including precautions in use of cleaning materials that may be detrimental to surfaces.

C. Samples: Submit selection and verification samples: 6" x 6" (152 x 152 mm) sample for each wood fiber wall panel unit required, showing full range of exposed texture to be expected in completed work.

D. Quality Assurance/Control Submittals: Submit the following:
1. Test Reports: Upon request, submit certified test reports from recognized test laboratories.
2. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar

size and complexity.

B. Regulatory Requirements and Approvals:
1. International Conference of Building Officials (ICBO): ICBO Research Report No. 1116.
2. Underwriters' Laboratories of Canada (ULC) label.

1.6 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 1 Product Requirement Section.

B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
1. Prevent soiling, physical damage or wetting.
2. Store cartons open at each end to stabilize moisture content and temperature.

1.7 PROJECT/SITE CONDITIONS

A. Environmental Requirements:
1. Do not install acoustical panels until building is closed in and HVAC system is operational.
2. Locate materials onsite at least 24 hours before beginning installation to allow materials to reach temperature and moisture content equilibrium.
3. Maintain the following conditions in areas where acoustical materials are to be installed 24 hours before, during and after installation:
a. Relative Humidity: 65 - 75%.
b. Uniform Temperature: 55 - 70 degrees F (13 - 21 degrees C).

1.8 MAINTENANCE

A. Extra Materials: Provide 10 percentage additional material for use by owner in building maintenance and repair.

B. Provide new unopened cartons of extra materials, packaged with protective covering for storage, identified with appropriate labels.

PART 2 - PRODUCTS

2.1 ACOUSTICAL WALL PANEL SYSTEM

A. Manufacturer: Tectum Inc.
1. Contact: 105 South 6th St., Newark, OH 43055; Telephone: (888) 977-9691, (740) 345-9691; Fax: (800) 832-8869; E-mail: info@tectum.com; website: www.tectum.com.

B. Proprietary Systems. Acoustical Wall panel systems, including the following:
1. Tectum Standard Interior Wall Panels:
a. Material: Aspen wood fibers bonded with inorganic hydraulic cement.
b. Thickness: 1 1/2" (38 mm).
c. Edge: Long edge beveled.
d. Width: as shown on drawings.
e. Length: as shown on drawings.
f. Color: Factory painted white.
g. Mounting Style: "A". Provide all fasteners for a complete single source installation.

2.2 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

2.3 ACCESSORIES

A. Provide accessories as follows:
1. Tectum Painted Head Drywall Screws.
2. Tectum Touch-Up Paint: White.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Comply with the instructions and recommendations of the acoustical wall panel system manufacturer.

B. Install materials in accordance with governing regulations, fire resistance rating requirements and industry standards applicable to work.

1. Comply with CISCA Code of Practices.

3.2 EXAMINATION

A. Site Verification of Conditions:
1. Examine surfaces scheduled to receive suspended or directly attached acoustical units for unevenness, irregularities and dampness that would affect quality and execution of work.
2. Do not proceed with installation of wall panel system until unacceptable conditions are corrected.

3.3 INSTALLATION

A. Screw head to be flush with panel surface.

B. Securely affix wall panels by means of splines attached vertically to smooth wall or furring strips. Engage vertical kerfs on the edges of the wall panels with splines. Apply adhesive or use Velcro hook and loop fastening where necessary.

C. Cover field cut edges by means of trim or other moldings.

3.4 CLEANING

A. Clean exposed surfaces of acoustical panel, trim, moldings and suspension members to comply with manufacturer's instructions for cleaning.

B. Touch up any minor finish damage.

C. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

3.5 PROTECTION

A. Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION