

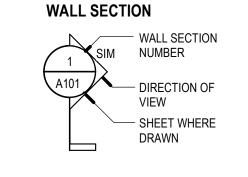
WALTER SHUMWAY INTERMOUNTAIN HEALTHCARE 36 S. STATE ST. # 2100 SLC, UT 84111 walter.shumway@imail.org 801.718.2411

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REFERENCE SYMBOL LEGEND

DETAIL SECTION BUILDING SECTION - ELEVATION NUMBER WALL SECTION NUMBER SIM AND DIRECTION DIRECTION OF VIEW SHEET WHERE SHEET WHERE DRAWN

LAYOUT GRID LINES WALL SECTION

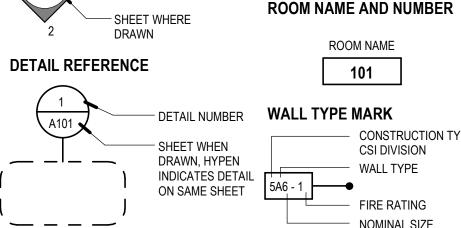


INTERIOR ELEVATION

REVISIONS TAG

- GRID IDENTIFICATION ______

LEVEL LINE



/ ELEVATION

NUMBER AND

DIRECTION

101 - DETAIL NUMBER WALL TYPE MARK CONSTRUCTION TYPE - BY CSI DIVISION WALL TYPE 5A6 - 1 — FIRE RATING NOMINAL SIZE SEE WALL TYPE SHEET FOR ADDITIONAL

ROOM NAME

DRAWING TAGS FLOOR TRANSITIONS MARKER REVISION NUMBER SYMBOL

FINISH TAG

INFORMATION









SHEET NUMBERING + NAMING

THIS IS A QUICK REFERENCE GUIDE TO THE SHEET NUMBERING AND NAMING SYSTEM USED IN VCBO CONSTRUCTION DOCUMENTS. XX000.0

.0 SLAB PLAN .1 ANNOTATED PLAN .2 DIMENSION + WALL TYPE PLAN .3 FINISH PLAN .4 REFLECTED CEILING PLAN

SEQUENCE DENOTES AREA SEQUENCE IN PLAN, AND NUMBERIC SEQUENCE IN NON-PLAN SHEETS - LEVELS DENOTES LEVEL IN A MULTI-STORY BUILDING. ALSO

BECOMES A SEQUENCE NUMBER DENOTING DIVISIONS IN

NON-PLAN SHEETS SHEET TYPE SEQUENCE NUMBERING:

GENERAL NOTES + LEGENDS FLOOR PLANS EXTERIOR ELEVATIONS EXTERIOR SECTIONS ENLARGED PLANS, ELEVATIONS, SECTIONS DETAIL DRAWINGS

DOOR, WINDOW, OTHER SCHEDULES SIGNAGE 8 USER DEFINED 9 3D DRAWINGS + PERSPECTIVES

DESIGN DATA

GOVERNING BUILDING CODES: IBC 2018, to include Appendix J; ANSI 117-1 2009; NFPA 101 LIFE SAFETY 2018; IMC 2018; IPC 2018; IECC 2018, for commercial projects; IFGC 2018; NEC 2017

TENANT IMPROVEMENT TO EXISTING BUILDING - NOT A CHANGE IN OCCUPANCY TOTAL REMODEL AREA = 300 SF (REMODEL)

OCCUPANCY TYPE - CH.3 I-2 - INSTITUTIONAL

THERE WILL BE NO INVASIVE THERAPIES OR ANESTHESIA. OUTPATIENTS ARE CAPABLE OF SELF-PRESERVATION. INPATIENTS WILL BE ASSISTED BY NURSING PERSONEL

AUTOMATIC SPRINKLER SYSTEM: PER SECTION 903

EXISTING SYSTEM TO REMAIN EXIT ACCESS - CH. 10

COMMON PATH OF EGRESS TRAVEL: PER TABLE 1006.2.1 (MEASEURED FROM THE MOST REMOTE POINT WITHIN A STORY TO THAT POINT WHERE THE OCCUPANTS HAVE SEPARATE ACCESS TO TWO EXITS OR EXIT ACCESS DOORWAYS)

MINIMUM CORRIDOR WIDTH: PER TABLE 1020.2 IN INCHES

 44 UNLESS NOTED OTHERWISE 36 WITH AN OCCUPANT LOAD OF LESS THAN 50

INTERIOR WALL & CEILING FINISH REQUIREMENTS: PER TABLE 803.11 IN SPRINKLERED BUILDING : EXIT ENCLOSURES AND EXIT PASSAGEWAYS - CLASS B

ROOMS AND ENCLOSED SPACES - CLASS C

INTERIOR FLOORS FINISH: PER 804 IN SPRINKLERED BUILDING - CLASS I & II

CORRIDORS AND OTHER EXIT WAYS - CLASS C

GENERAL NOTES

- 1. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.
- 2. AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS, THE CONTRACTOR SHALL ENDEAVOR TO IDENTIFY AND NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN THE WORK OF DIFFERENT PARTIES AT THE EARLIEST POSSIBLE DATE SO AS TO ALLOW REASONABLE AND ADEQUATE TIME FOR THE CONFLICT TO BE RESOLVED WITHOUT DELAYING THE WORK. ALL DEVIATIONS FROM THAT WHICH IS REQUIRED BY THE CONTRACT DOCUMENTS MUST BE APPROVED IN ADVANCE BY THE ARCHITECT.
- 3. THE ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL THE TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES. QUANTITIES ARE TO BE PROVIDED AS SHOWN ON DRAWINGS OF OTHER DISCIPLINES BUT LOCATIONS SHOWN ON OTHER DRAWINGS ARE SCHEMATIC, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL PARTS OF THE WORK.
- 4. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN; DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.
- 5. CONTRACTOR TO FOLLOW CURRENT ANSI 117-1 STANDARDS AS REPRESENTED ON SHEET G301, GENERAL ACCESSIBILITY GUIDELINES. NOTIFY ARCHITECT IF THE DESIGN DRAWINGS CONFLICT WITH THIS SHEET.

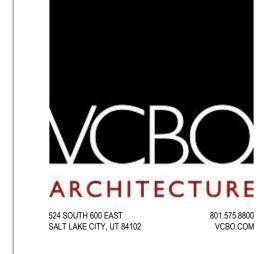
NOTES TO BIDDERS

- 1. THIS SHEET CONTAINS A LIST OF DRAWINGS WHICH COMPRISE A FULL SET OF DRAWINGS FOR THIS PROJECT. ANY CONTRACTOR, SUBCONTRACTOR, VENDOR OR ANY OTHER PERSON PARTICIPATING IN OR BIDDING ON THIS PROJECT SHALL BE RESPONSIBLE FOR THE INFORMATION CONTAINED IN ANY AND ALL SHEETS OF DRAWINGS AND SPECIFICATIONS. IF ANY PERSON, PARTY OR ENTITY ELECTS TO SUBMIT BIDS FOR ANY PORTION, OR ALL, OF THIS PROJECT, THAT PERSON, PARTY OR ENTITY SHALL BE RESPONSIBLE FOR ANY AND ALL INFORMATION CONTAINED IN THESE DRAWINGS AND SPECIFICATIONS, INCLUDING, BUT NOT LIMITED TO, ANY SUBSEQUENT ADDENDUMS OR CLARIFICATIONS THAT MAY BE ISSUED.
- 2. THESE DOCUMENTS SHOW THE DESIGN INTENT. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE EVERYTHING SHOWN ON THE DRAWINGS OR SPECIFIED REGARDLESS OF WHERE IT IS SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS. FOR EXAMPLE; SOME MILLWORK DETAILS HAVE STEEL FRAMES WHICH MAY BE PROVIDED BY DIVISION 05 OR WITH THE MILLWORK AT THE CONTRACTOR'S DISCRETION, BUT IT SHALL BE PROVIDED AS PART OF THE CONTRACT.
- 3. EVERYTHING CALLED FOR IN THESE DOCUMENTS SHALL BE "NEW" AND PROVIDED BY THE CONTRACTOR, SUBCONTRACTOR, VENDOR OR ANY OTHER PERSON PARTICIPATING IN OR BIDDING ON THIS PROJECT UNLESS NOTED OTHERWISE AS EXISTING (EXIST), NOT IN CONTRACT (NIC) OR FOR REFERENCE ONLY. FURNISHINGS SHOWN DASHED SHALL BE FOR REFERENCE ONLY.

SHEET INDEX

Grand total: 8

SCHEDULE - SHEET INDEX FOR G001	
Sheet Number	SHEET NAME
GENERAL	
CV	COVER
G001	GENERAL INFORMATION, INDEX & TYPICAL ANSI ACCESSIBILITY STANDARDS
G002	PROJECT & PRODUCT SPECIFICATIONS
G003	PROJECT & PRODUCT SPECIFICATIONS
ARCHITECTURAL	SITE
AS101	OVERALL SITE PLAN - OVERALL BUILDING 5
DEMOLITION	
AD110.1	DEMOLITION PLAN & DEMO REFLECTED CEILING PLAN - ENLARGED
ARCHITECTURAL	
A110.1	LEVEL 2 ANNOTATED & DIMENSION PLAN, RCP & FINISH PLAN - ENLARGED
A500	INTERIOR FRAMING, CEILING DETAILS & CASEWORK DETAILS





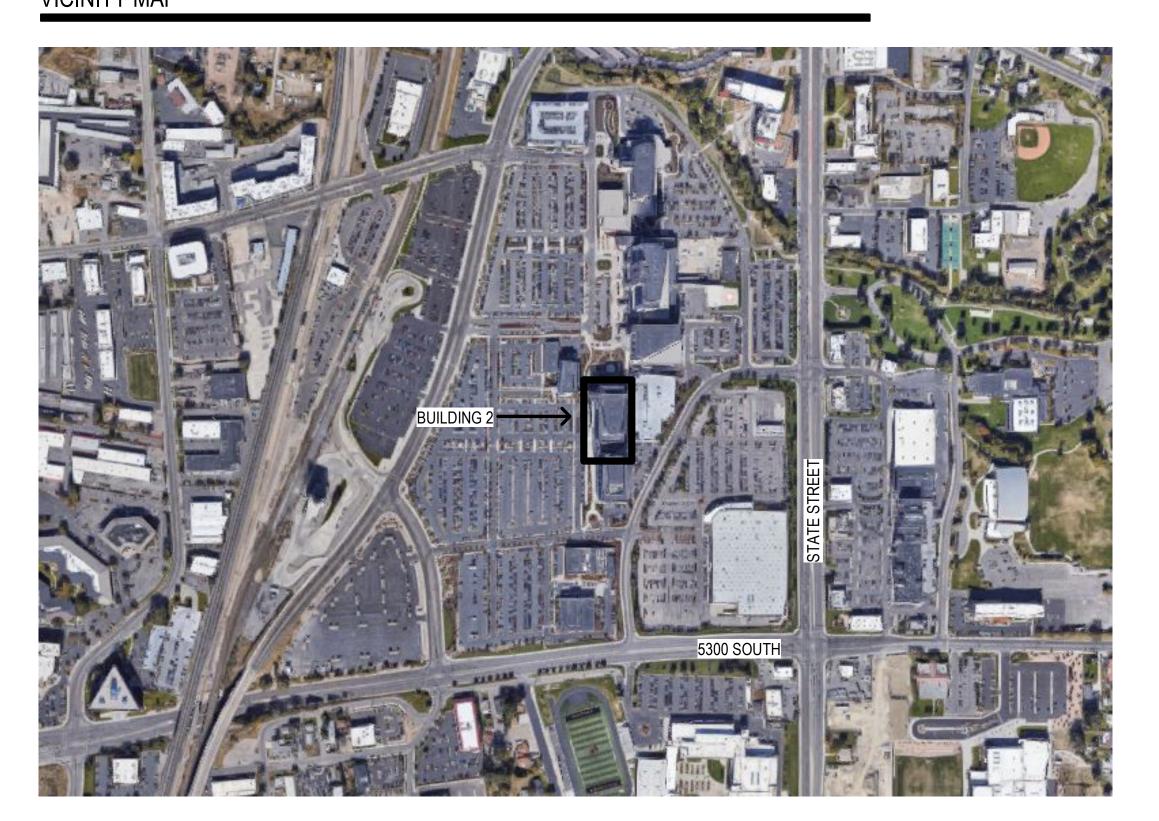
DATE DESCRIPTION

VCBO NUMBER: DATE:

01/10/2022

REMODI ROOM ADING RE 7

VICINITY MAP





B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction. C. **Standards**: Comply with ANSI A10.6 and NFPA 241. D. **Pre-demolition Conference**: Conduct conference at Project site to comply with requirements in

Division 1 Section "Project Management and Coordination." Review methods and procedures related to selective demolition including, but not limited to, the following: Inspect and discuss condition of construction to be selectively demolished.

2. Review structural load limitations of existing structure. 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays. 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

PROJECT CONDITIONS A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted. Provide not less than 72 hours'

notice to Owner of activities that will affect Owner's operations. B. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. 1. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from authorities having jurisdiction.

C. Owner assumes no responsibility for condition of areas to be selectively demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far D. **Hazardous Materials**: It is not expected that hazardous materials will be encountered in the Work. 1. Hazardous materials will be removed by Owner before start of the Work. 2. If materials suspected of containing hazardous materials are encountered, do not disturb;

immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a

Storage or sale of removed items or materials on-site will not be permitted. F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations. 1. Maintain fire-protection facilities in service during selective demolition operations.

REPAIR MATERIALS

selective demolition required.

A. **Use repair materials** identical to existing materials. 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible. 2. Use materials whose installed performance equals or surpasses that of existing materials. B. Comply with material and installation requirements specified in individual Specification Sections.

EXAMINATION A. **Verify** that utilities have been disconnected and capped. B. Survey existing conditions and correlate with requirements indicated to determine extent of

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged. D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations. F. **Perform surveys** as the Work progresses to detect hazards resulting from selective demolition

UTILITY SERVICES

A. **Existing Utilities**: Maintain services indicated to remain and protect them against damage during selective demolition operations. B. **Utility Interruption**: Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction. C. Provide at least 72 hours' notice to Owner if shutdown of service is required during changeover.

D. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utilities serving E. Owner will arrange to shut off indicated utilities when requested by Contractor. F. If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary utilities that bypass area of selective demolition and that maintain

G. **Cut off pipe or conduit in walls** or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing. H. Utility Requirements: Refer to Mechanical and Electrical Sections for shutting off, disconnecting, removing, and sealing or capping utilities. Do not start selective demolition work until utility disconnecting and sealing have been completed and verified in writing.

POLLUTION CONTROLS

continuity of service to other parts of building.

A. **Temporary ventilation**: Provide temporary ventilation as follows: 1. Vacuum old carpets prior to removal using a certified Carpet and Rug Institute (CRI) Green Label vacuum cleaner. Vacuum floor immediately after old carpet is removed. B. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage existing construction or create hazardous or

objectionable conditions, such as ice, flooding, and pollution. 2. Wet mop floors to eliminate trackable dirt and wipe down walls and doors of demolition enclosure. Vacuum carpeted areas.

Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

D. Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations

A. **General**: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows: 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective

demolition operations above each floor or tier before disturbing supporting members on the next 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

finished surfaces. 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations. Maintain adequate ventilation when using cutting torches.

3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing

6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site. 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation

8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing. Dispose of demolished items and materials promptly. 10. Return elements of construction and surfaces that are to remain to condition existing before

selective demolition operations began. B. Existing Facilities: Comply with Owner's requirements for using and protecting walkways, building entries, and other building facilities during selective demolition operations. C. Removed and Salvaged Items: Comply with the following:

 Clean salvaged items. Pack or crate items after cleaning. Identify contents of containers. Store items in a secure area until delivery to Owner. Transport items to Owner's storage area designated by Owner.

Protect items from damage during transport and storage.

D. Removed and Reinstalled Items: Comply with the following: 1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment. 2. Pack or crate items after cleaning and repairing. Identify contents of containers.

Protect items from damage during transport and storage. 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make

item functional for use indicated. E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after

F. Concrete: Neatly core drill openings in existing floor - verify locations of services in suspended slab and below before any cutting. PATCHING AND REPAIRS

A. **General**: Promptly repair damage to adjacent construction caused by selective demolition B. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new

1. Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to manufacturer's written recommendations. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

D. Floors and Walls: Where walls or partitions that are demolished extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, as noted on Drawings, to achieve uniform color and appearance. 1. Patch with durable seams that are as invisible as possible. Provide materials and comply with

installation requirements specified in other Sections of these Specifications. 2. Skim coat entire wall surface with drywall compound to provide smooth, unblemished substrate for new paint finish. 3. Where patching occurs in a painted surface, apply primer and intermediate paint coats over

patch and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces. 4. Test and inspect patched areas after completion to demonstrate integrity of installation.

E. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance. Replace damaged ceiling panels with new panels, matching existing.

DISPOSAL OF DEMOLISHED MATERIALS

B. **Burning**: Do not burn demolished materials.

A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

C. **Disposal**: Transport demolished materials off Owner's property and legally dispose of them.

SECTION 09 2216 NON-STRUCTURAL METAL FRAMING

NON-STRUCTURAL METAL FRAMING, GENERAL A. **Framing Members, General**: Comply with ASTM C 754 for conditions indicated. 1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal, unless otherwise

SUSPENSION SYSTEM COMPONENTS A. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 16 gauge 0.0625-inch- diameter wire, or double strand of 18 gauge (0.0475-inch) diameter wire. B. Hanger Attachments to Concrete:

1. Powder-Actuated Fasteners: Suitable for application indicated, fabricated from corrosionresistant materials with clips or other devices for attaching hangers of type indicated, and capable of sustaining, without failure, a load equal to 10 times that imposed by construction as determined by testing according to ASTM E 1190 by an independent testing agency. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.162-inch diameter.

. Flat Hangers: Steel sheet, minimum 1 x 3/16 inch by length indicated. Carrying Channels: Cold-rolled, commercial-steel sheet with a base-metal thickness of 16 gauge (0.0538 inch) and minimum 1/2-inch- wide flanges. Depth: Minimum 1-1/2 inches.

F. Furring Channels (Furring Members):

1. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch deep. a. Minimum Base Metal Thickness: Minimum 22 gauge. 2. Resilient Furring Channels: 1/2-inch- deep members designed to reduce sound transmission. a. Subject to compliance with requirements of Contract Documents, products which may be incorporated in the Work include but are not limited to:

1) ClarkDietrich Building Systems; RC Deluxe (RCSD) Resilient Channel. STEEL FRAMING FOR FRAMED ASSEMBLIES A. Steel Studs and Runners: ASTM C 645.

1. Minimum Base-Metal Thickness: Minimum 20 gauge (0.0296 inch); 33 ksi. B. Equivalent Gauge Steel Studs and Runners: ASTM C 645

Minimum Base-Steel Thickness: 0.019 inch; 65 ksi. C. Slip-Type Head Joints:

Deflection Track: Steel sheet top runner manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs. a. Available Products: Subject to compliance with requirements of Contract Documents, products that may be incorporated into the Work include, but are not limited to, the following: Steel Network Inc. (The); VertiClip SLD/VertiTrack VTD Series.

ClarkDietrich Building Systems, BlazeFrame or MaxTrak Slotted Deflection Track. . Flat Strap Backing Plate: Steel sheet for blocking and bracing in length and width indicated. . Minimum Base-Metal Thickness: Minimum 16 gauge. Option (at Contractor's discretion): Proprietary fire-retardant wood blocking and bracing; ClarkDietrich Fire-Retardant Treated Wood Blocking Plate, D16F/D24F.

D. Cold-Rolled Channel Bridging: 16 gauge bare-steel thickness, with minimum 1/2-inch wide 1. Depth: Minimum 1-1/2 inches.

2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches, 14 gauge thick, galvanized steel. A. **General**: Provide auxiliary materials that comply with referenced installation standards. 1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and

other properties required to fasten steel members to substrates.

. **Bracing**: Install bracing at terminations in assemblies.

A. **Examine areas and substrates**, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting

1. Proceed with installation only after unsatisfactory conditions have been corrected. INSTALLATION. GENERAL

A. Installation Standard: ASTM C 754. 1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to B. **Blocking**: Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, cabinets and casework, or similar construction.

D. **Expansion Joints**: Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

INSTALLING SUSPENSION SYSTEMS A. Install suspension system components in sizes and spacings indicated on Drawings, but not less than those required by referenced installation standards for assembly types and other assembly B. **Isolate suspension systems** from building structure where they abut or are penetrated by building

structure to prevent transfer of loading imposed by structural movement. . Suspend hangers from building structure as follows: Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.

that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices. a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards. 3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a

2. Where width of ducts and other construction within ceiling plenum produces hanger spacings

manner that will not cause hangers to deteriorate or otherwise fail. 4. Flat Hangers: Secure to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices and fasteners that are secure and appropriate for structure and hanger, and in a manner that will not cause hangers to deteriorate or otherwise fail. 5. Do not attach hangers to steel roof deck.

6. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that 7. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck. 8. Do not connect or suspend steel framing from ducts, pipes, or conduit.

Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports. . Seismic Bracing: Sway-brace suspension systems with hangers used for support F. Grid Suspension Systems: Attach perimeter wall track or angle where grid suspension systems meet vertical surfaces. Mechanically join main beam and cross-furring members to each other and butt-

cut to fit into wall track. . **Installation Tolerances**: Install suspension systems that are level to within 1/8 inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

INSTALLING FRAMED ASSEMBLIES

A. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between stude and exterior wall. . **Install studs** so flanges within framing system point in same direction. **Install tracks** (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to terminate at

suspended ceilings. Continue framing around ducts penetrating partitions above ceiling. 1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies. 2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install

runner track section (for cripple studs) at head and secure to jamb studs. a. Install two studs at each jamb or provide 16 gauge studs at door openings, unless otherwise indicated. b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.

c. Extend jamb studs through suspended ceilings and attach to underside of overhead 3. Other Framed Openings: Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads. 4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly

indicated and support closures and to make partitions continuous from floor to underside of solid 5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated. Curved Partitions:

a. Bend track to uniform curve and locate straight lengths so they are tangent to arcs. Begin and end each arc with a stud, and space intermediate studs equally along arcs. On straight lengths of not less than 2 studs at ends of arcs, place studs 6 inches o.c. D. Direct Furring:

. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches on center E. Z-Furring Members: Erect insulation (specified in Division 7 Section "Building Insulation") vertically and hold in place with Z-furring members spaced 24 inches on center

2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 3. At exterior corners, attach wide flange of furring members to wall with short flange extending

beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of

attached channel. At interior corners, space second member no more than 12 inches from corner

SECTION 09 2900 GYPSUM BOARD

and cut insulation to fit.

PANELS, GENERAL A. Size: Provide in maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated. INTERIOR GYPSUM BOARD

A. General: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent. . Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

b. G-P Gypsum. c. National Gypsum Company. d. PABCO Gypsum. e. USG Corporation. B. Type X: Thickness: 5/8 inch.

a. American Gypsum Co.

Long Edges: Tapered. TRIM ACCESSORIES A. Interior Trim: ASTM C 1047. . Material: Galvanized or aluminum-coated steel sheet or rolled zinc. Shapes:

 a. Cornerbead. b. Bullnose bead. c. LC-Bead: J-shaped; exposed long flange receives joint compound.

d. L-Bead: L-shaped; exposed long flange receives joint compound. e. U-Bead: J-shaped; exposed short flange does not receive joint compound. f. Expansion (control) joint. g. Curved-Edge Cornerbead: With notched or flexible flanges.

JOINT TREATMENT MATERIALS A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape: 1. Interior Gypsum Wallboard: Paper. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound. 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound. 3. Fill Coat: For second coat, use drying-type, all-purpose compound.

4. Finish Coat: For third coat, use drying-type, all-purpose compound. **AUXILIARY MATERIALS** A. **General:** Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations. B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum

panels to continuous substrate. 1. Use adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59. Subpart D (EPA Method 24). Steel Drill Screws: ASTM C 1002, unless otherwise indicated. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to

2. For fastening cementitious backer units, use screws of type and size recommended by panel

Acoustical Sealant: As specified in Division 7 Section "Joint Sealants." E. Thermal Insulation: As specified in Division 7 Section "Building Insulation."

EXECUTION EXAMINATION

A. **Examine areas and substrates**, with Installer present, and including welded hollow-metal frames and framing, for compliance with requirements and other conditions affecting performance. B. **Examine panels before installation**. Reject panels that are wet, moisture damaged, and mold

C. **Proceed with installation** only after unsatisfactory conditions have been corrected. APPLYING AND FINISHING PANELS, GENERAL A. Comply with ASTM C 840.

B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member. C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place. D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

Form control and expansion joints with space between edges of adjoining gypsum panels. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally. 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.

Fit gypsum panels around ducts, pipes, and conduits. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations, and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to

open (unsupported) edges of stud flanges first. APPLYING INTERIOR GYPSUM BOARD A. **Install interior gypsum board** in the following locations: Type X: Vertical surfaces, unless otherwise indicated.

B. Single-Layer Application: 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing, unless otherwise indicated. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints. a. Stagger abutting end joints not less than one framing member in alternate courses of

b. At stairwells and other high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly 3. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members. 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

INSTALLING TRIM ACCESSORIES A. **General:** For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions. B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect C. **Interior Trim**: Install in the following locations:

Cornerbead: Use at outside corners, unless otherwise indicated. Bullnose Bead: Use where indicated. LC-Bead: Use at exposed panel edges.

L-Bead: Use where indicated.

U-Bead: Use at exposed panel edges Curved-Edge Cornerbead: Use at curved openings. **Aluminum Trim:** Install in locations indicated on Drawings. **Install corner beads** at external corners. Provide metal trim to protect edge of gypsum board wherever gypsum board intersects a dissimilar material. Hold channel and L trim back from metal window

and door frames 1/8 inch to allow for caulking. FINISHING GYPSUM BOARD A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces. B. **Prefill open joints**, rounded or beveled edges, and damaged surface areas.

Apply joint tape over gypsum board joints, except those with trim having flanges not intended for D. Gypsum Board Finish Levels: Finish panels to levels indicated below: Level 1: Ceiling plenum areas, concealed areas, and where indicated. Level 2: Panels that are substrate for tile.

3. Level 5: At all wall surfaces, except where noted otherwise above. a. Primer and its application to surfaces are specified in other Division 9 Sections. A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

B. **Remove and replace** panels that are wet, moisture damaged, and mold damaged. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

FIELD QUALITY CONTROL A. Above-Ceiling Observation: Architect will conduct an above-ceiling observation before installing gypsum board ceilings and report deficiencies in the Work observed. Do not proceed with installation of gypsum board to ceiling support framing until deficiencies have been corrected. 1. Notify Architect seven days in advance of date and time when Project, or part of Project, will be eady for above-ceiling observation.

2. Before notifying Architect, complete the following in areas to receive gypsum board ceilings: a. Installation of 80 percent of lighting fixtures, powered for operation. b. Installation, insulation, and leak and pressure testing of water piping systems. Installation of air-duct systems.

d. Installation of air devices. e. Installation of mechanical system control-air tubing. Installation of ceiling support framing.

SECTION 09 5100 ACOUSTICAL CEILING TILES

PRODUCTS MANUFACTURER

MATERIALS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following: Suspension System: Armstrong; Prelude XL 15/16 inch Exposed Tee. Acoustical Tile: Armstrong; Ultima 1910 and Ultima 1913

Acoustical Sealant: a. Tremco Acoustical Sealant; Tremco. USG Acoustical Sealant; United States Gypsum Co. Chem-Calk 600; Woodmont Products, Inc.

Pecora Corp; AC 20 FTR Acoustical and Insulation Sealant A. Acoustical Ceiling Units: General: Provide manufacturer's standard units of configuration indicated which are prepared for mounting method designated and which comply with FS SS-S-118 requirements, including those indicated by reference to type, form, pattern, grade (NRC or NIC's as applicable), light reflectance coefficient (LR), edge detail, and joint detail (if any).

Mounting Method for Measuring NRC: No. 7 (mechanically mounted on special metal support), FS SS-S-118; or Type E-400 mounting as per ASTM E 795. B. Sound Attenuation Performance: Provide acoustical ceiling units with ratings for ceiling sound transmission class (STC) of range indicated as determined according to AMA 1-II "Ceiling Sound Transmission Test by Two-Room Method" with ceilings continuous at partitions and supported by a metal suspension system of type appropriate for ceiling unit of configuration indicated (concealed for tile, exposed for panels).

Ceiling Types: 1. Type A: Armstrong: Ultima (1913) a. Size: 24 inches x 48 inches x 3/4 inch b. Edge: Square lay-In

finish indicated which comply with applicable ASTM C 635 requirements.

c. CAC: 35 d. LR: 0.88 e. NRC: 0.75 f. ASTM E1264 Classification: Type IV, Form 2, Pattern E Surface Finish: Scrim with factory-applied latex paint Type C: Suspended gypsum system; refer to Division 9 Section "Gypsum Board".

unless otherwise required. For exposed suspension members and accessories with painted finish, provide color indicated or, if not otherwise indicated, as selected by Architect from manufacturer's full range of standard colors. . Attachment Devices: Size for 5 times design load indicated in ASTM C 635, Table 1, Direct 3. Hanger Wire: Galvanized carbon steel wire, ASTM A 641, soft temper, pre-stretched, Class 1 coating, sized so that stress at 3- times hanger design loan (ASTM C 635, Table 1, Direct Hung), will be less than yield stress of wire, but provide not less than 12 gauge.

4. Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that fit acoustical panel edge details and suspension systems indicated; formed from sheet metal of same material and finish as that used for exposed flanges of suspension system runners. a. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

Metal Suspension System: Provide metal suspension systems of type, structural classification and

1. Finishes and Colors: Provide manufacturer's standard finish for type of system indicated,

SECTION 09 5100 ACOUSTICAL CEILING TILES (continues)

Hold-Down Clips: Minimum 24 gauge spring steel, 1-7/16 inches deep x 7/8 inches wide, designed to fit over cross tees. Provide clips spaced symmetrically 2 ft. o.c. 6. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces; locate at 12 feet on center both ways for suspended ceilings according to UBC Standard 25-2 other standard required by authority having jurisdiction.

a. In lieu of compression struts provide a seismic clip with an ES Report number from ICC demonstrating that the compression struts and the 2-inch perimeter wall mold are not required. BERC seismic clips; Armstrong. 1496 Perimeter Clip; Chicago Metallic Corp.

ACM-7 clip; USG. 7. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, pre-painted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653/A 653M, not less than G30 coating designation, with pre-finished 15/16inch- wide metal caps on flanges

 a. Structural Classification: Heavy-duty system. b. End Condition of Cross Runners: Butt-edge type. c. Face Design: Flat, flush.

d. Cap Material: Steel or aluminum cold-rolled sheet. e. Cap Finish: Painted in color as selected from manufacturer's full range. D. Miscellaneous Materials: 1. Acoustical Sealant: Resilient, non-staining, non-shrinking, non-hardening, non-skinning, non-

drying, non-sag sealant intended for interior sealing of concealed construction joints.

RESILIENT MOLDING ACCESSORY A. Available Manufacturers: Subject to compliance with requirements of Contract Documents, manufacturers with products that may be incorporated into the Work include, but are not limited to, the

1. Burke Flooring, a division of Burke Industries. Johnsonite, a Tarkett brand.

Roppe Corporation. B. Applications, including but not limited to: Carpet bar for tackless installations, Carpet edge for gluedown applications, Nosing for carpet, Nosing for resilient floor covering, Reducer strip for resilient floor covering, and Joiner for tile and carpet. C. **Material**: Rubber.

D. Colors and Patterns: As listed in the Legend-Finish Schedule or if not listed in the finish schedule then as selected by the Architect from the manufacturer's full range of colors. Coordinate with the

2.5 INSTALLATION MATERIALS

4. R. C. Musson Rubber Co.

A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic cement based formulation provided or approved by resilient product manufacturer for applications indicated. B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated. C. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.

EXECUTION **PREPARATION** A. **Coordination**: Furnish layouts for inserts, clips, or other supports required to be installed by other

trades for support of acoustical ceilings 1. Furnish concrete inserts, steel deck hanger clips and similar devices to other trades for installation well in advance of time needed for coordination of other work. B. Layout: Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of less-than-half width units at borders, and comply with reflected ceiling plans wherever possible.

INSTALLATION A. General: Install materials in accordance with manufacturer's printed instructions, and to comply with governing regulations, fire resistance rating requirements as indicated, and industry standards applicable B. Arrange acoustical units and orient directionally-patterned units (if any) in manner shown by

reflected ceiling plans. Install tile with pattern running in one direction Install suspension systems to comply with ASTM C 636, with hangers supported only from building structural members. Locate hangers not less than 6 inches from each end and spaced 4 feet along each carrying channel or direct-hung runner, unless otherwise indicated, leveling to tolerance of 1/8 inch in 12 feet. Comply with detail on drawings for seismic bracing. D. Secure wire hangers by looping and wire-tying, either directly to structures or to inserts, eyescrews, or other devices which are secure and appropriate for substrate, and which will not deteriorate of

 Install hangers plumb and free from contact with insulation or other objects within ceiling plenum which are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal force by bracing, countersplaying or other equally effective means. E. **Install edge moldings** of type indicated at perimeter of acoustical ceiling area and at locations

where necessary to conceal edges of acoustical units 1. Screw-attach moldings to substrate at intervals not over 16 inches on center and not more than 3 inches from ends, leveling with ceiling suspension system to tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely. **Install** acoustical panels in coordination with suspension system, with edges concealed by support of suspension members. Scribe and cut panels to fit accurately at borders and at penetrations.

Paint cut and exposed edges of acoustical tile. Install hold-down clips in areas indicated, and in areas where required by governing regulations or for fire-resistance ratings; space as recommended by panel manufacturer, unless otherwise indicated or required. ADJUST AND CLEAN

A. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension

members; comply with manufacturer's instructions for cleaning and touch-up of minor finish damage.

Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate

evidence of damage.

SECTION 09 6513 RESILIENT BASE AND ACCESSORIES

Characteristics:

1.2 VINYL MOLDING ACCESSORY

1.1 STANDARD THERMOPLASTIC RUBBER BASE (B1) A. <u>Acceptable Manufacturers</u>: Subject to compliance with requirements of Contract Documents, provide products by manufacturers listed below and as indicated in Key-Finish on Drawings. If not listed, submit as a substitution according to the Conditions of the Contract and provisions of Division 01 sections. Manufacturer: Johnsonite

2. Product: Traditional Wall Base B. **Product Standard**: ASTM F 1861, Type TV (vinyl, thermoplastic), Group I (solid, homogeneous). 1. Style and Location: Style B, Cove: Provide in areas with resilient flooring and where indicated on Drawings.

Thickness: 0.125 inch. Height: 4 inches, per schedule. Lengths: Coils in manufacturer's standard length. Outside Corners: Preformed, if available in selected colors; job-formed otherwise. Inside Corners: Job-formed. D. **Colors**: As selected by Architect from full range of colors – refer to Finish Legend.

A. Acceptable HYPERLINK "http://www.specagent.com/LookUp/?ulid=7590&mf=04&src=wd" **Manufacturers**: Subject to compliance with requirements of Contract Documents, provide products by manufacturers listed below and as indicated in Key-Finish on Drawings. Substitutions will not be Mannnington Commercial. **Description**: Vinyl edge products for glue-down applications for tile and carpet transitions.

Profile and Dimensions: As indicated on Drawings. Locations: Provide molding accessories in areas indicated. Colors and Patterns: As indicated on Key-Finish Schedule or if not indicated, as selected by Architect from manufacturer's full range. 1.3 INSTALLATION MATERIALS A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for

B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient

products and substrate conditions indicated.

1.2 PREPARATION

adjacent pieces aligned.

into spaces where they will be installed.

applications indicated

EXECUTION 1.1 EXAMINATION A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. 1. Verify that finishes of substrates comply with tolerances and other requirements specified in

other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products. B. **Proceed with installation only after** unsatisfactory conditions have been corrected. 1. Installation of resilient products indicates acceptance of surfaces and conditions.

A. **Prepare substrates** according to manufacturer's written instructions to ensure adhesion of resilient B. **Fill cracks, holes, and depressions** in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate. C. **Do not install resilient products** until they are the same temperature as the space where they are to be installed.

1. At least 48 hours in advance of installation, move resilient products and installation materials

D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient 1.3 RESILIENT BASE INSTALLATION Comply with manufacturer's written instructions for installing resilient base. B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required. Install resilient base in lengths as long as practical without gaps at seams and with tops of

D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates. E. **Do not stretch resilient base** during installation. F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material. G. **Preformed Outside Corners**: Install preformed corners before installing straight pieces. H. Job-Formed Corners:

1. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less

than 3 inches in length. a. Miter or cope corners to minimize open joints. 1.4 RESILIENT ACCESSORY INSTALLATION A. **Comply with manufacturer's written instructions** for installing resilient accessories. B. **Resilient Molding Accessories**: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor covering that would otherwise be SECTION 09 6513 RESILIENT BASE AND ACCESSORIES (continues)

1.5 CLEANING AND PROTECTION A. Comply with manufacturer's written instructions for cleaning and protecting resilient products. B. **Perform the following operations** immediately after completing resilient-product installation: Remove adhesive and other blemishes from exposed surfaces.

Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. D. Cover resilient products subject to wear and foot traffic until Substantial Completion.

<u>SECTION 09 6813 CARPET TILE</u>

PRODUCTS CARPET TILE A. Acceptable Product: Subject to compliance with requirements, provide products indicated below and on Legend-Finish Schedule on Drawings. Substitutions will not be considered. 1. Manufacturer: Shaw Contract Group

2. Collection: Noble Materials a. Style – Form Tile #5T136 B. Colors: As indicated on Key-Finish on Drawings

Properties: Construction: Multi-level pattern loop. . Fiber: Eco Solution Q® nylon. B. Dye Method: 100 percent solution.

4. Tile Size: 9 x 36 inches. 5. Gauge: 1/12 inch. 6. Finished Pile Thickness: 0.130 inch. Average Density: 6092 ounces per cubic yard. 8. Tufted Weight: 22 ounces/square yard. 9. Backing: Ecoworx® tile.

System Characteristics: Color and Pattern: Select from manufactures standards Wearing Surface: Standard

formulation provided or recommended by carpet tile manufacturer.

Integral Cove Base: TBD 4. Overall System Thickness: 2mm INSTALLATION ACCESSORIES

B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation. **EXECUTION EXAMINATION**

A. **Examine substrates**, areas, and conditions, with Installer present, for compliance with requirements

for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting

A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based

B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following: 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by

Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.

carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects.

performing bond and moisture tests recommended by carpet tile manufacturer.

Proceed with installation only after unsatisfactory conditions have been corrected PREPARATION A. General: Comply with CRI 104 and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation. B. **Use trowelable leveling and patching compounds**, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions. Remove coatings, including curing compounds, and other substances that are incompatible with

adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer. D. **Broom and vacuum clean substrates** to be covered immediately before installing carpet tile. INSTALLATION A. General: Comply with CRI 104 and with carpet tile manufacturer's written installation instructions.

Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive

Maintain dye lot integrity. Do not mix dye lots in same area. D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carbet tile manufacture E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings. F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.

Install pattern as shown on Drawings and as required by Architect. **CLEANING AND PROTECTION** A. **Perform the following operations** immediately after installing carpet tile: 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer. Remove yarns that protrude from carpet tile surface.

Vacuum carpet tile using commercial machine with face-beater element. **Protect installed carpet** tile in compliance with CRI 104. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

MANUFACTURERS A. Acceptable Manufacturer: Subject to compliance with requirements of Contract Documents. provide products by the following manufacturer. Substitutions will not be considered.

SECTION 09 8433 SOUND ABSORBING WALL UNITS

Manufacturer: J2 Systems; j2systems.net. Products: J2 PET Acoustic Felt panels. A. Material: 100 percent PET (polyethylene terephthalate) felt.

Fire Rating: Class A. Size: As shown on Drawings. Acoustic Performance (NRC): 0.40 per ASTM C423-90A. Colors: Solid, as indicated on Finish Schedule.

Panel Properties:

1. Thickness: 12mm

EXECUTION EXAMINATION A. **Examine** substrates and conditions, with Installer present, for compliance with requirements, installation tolerances, and other conditions affecting performance of acoustic panels.

INSTALLATION A. Install panels as indicated on Drawings as recommended by the manufacturer. B. Install acoustic panels vertical and plumb, if applicable; true in plane; and with fabric installed square to the grain.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

provide products by the manufacturer listed below.

Sherwin-Williams Company.

SECTION 09 9123 PAINTING

years of age.

prior to Painting and Decorating".

within any particular area.

substrates primed by others.

EXECUTION

MANUFACTURERS A. Acceptable Manufacturers: Subject to compliance with requirements of Contract Documents,

A. **Material Quality**: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable. B. Proprietary names used to designate color or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other manufacturers. C. **Federal Specifications** establish minimum acceptable quality for paint materials. Provide written certification from paint manufacturer that materials provided meet or exceed these minimums. Manufacturer's products which comply with coating qualitative requirements of applicable Federal Specifications, yet differ in quantitative requirements, may be considered for use when acceptable to Architect. Furnish material data and manufacturer's certificate of performance to Architect for any

proposed substitutions. E. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated. Notify the Contractor in writing situations where the pigments of a chosen color are known to react with high alkalinity substrates (chemical burn), especially where the color is scheduled to be applied to a highly alkaline substrate. Notify Architect if color pigments will cause product to exceed allowable VOC limits. F. Chemical Components of Interior Paints and Coatings: Provide products that comply with the

following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and the following chemical restrictions: 1. Flat Paints and Coatings: VOC content of not more than 50 g/L. Non-Flat Paints and Coatings: VOC content of not more than 150 g/L. Anticorrosive Coatings: VOC content of not more than 250 g/L.

Varnishes and Sanding Sealers: VOC content of not more than 350 g/L.

Stains: VOC content of not more than 250 g/L.

total aromatic compounds (hydrocarbon compounds containing one or more benzene rings). 7. Furnish products which have zero VOC content wherever possible. **Lead content in pigment**, if any, is limited to contain not more than 0.06 percent lead, as lead metal based on the total non-volatile (dry-film) of paint by weight. 1. This limitation is extended to interior surfaces and those exterior surfaces, such as stairs. decks, porches, railings, windows, and doors which are readily accessible to children under seven

Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of

EXAMINATION A. Applicator must examine areas and conditions under which painting work is to be applied and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to 1. Comply with PDCA Standard P4 "Responsibility for Inspection and Acceptance of Surfaces

B. Starting of painting work will be construed as Applicator's acceptance of surfaces and conditions

C. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise **detrimental** to formation of a durable paint film. 3.2 PREPARATION A. **General**: Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition. B. **Barrier Coats**: Provide barrier coats over incompatible primers or remove and re-prime as required. Notify Architect in writing of any anticipated problems in using the specified coating systems with

SECTION 09 9123 PAINTING (continues)

specular black paint.

Accessories Removal: Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall

D. **Surface Preparation**: Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces. E. **Touch-up**: Touch-up shop-applied prime coats wherever damaged or bare, where required by other

sections of these specifications. Clean and touch-up with same type shop primer. APPLICATION A. **General**: Apply paint in accordance with manufacturer's directions. Use applicators and techniques

best suited for substrate and type of material being applied. 1. Paint colors, surface treatments, and finishes, are indicated in "schedules" of the Contract

2. Provide finish coats which are compatible with prime paints used. 3. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

4. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently-fixed equipment or furniture with prime coat only before final installation of equipment. 5. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-

7. Finish doors on tops, bottoms and side edges same as faces, unless otherwise indicated. 8. Sand lightly between each succeeding enamel or varnish coat. 9. Omit first coat (exterior faces) of surfaces which have been shop-primed and touch-up painted, unless otherwise indicated.

B. **Scheduling Painting**: Apply first-coat material to surfaces that have been cleaned, pretreated or

6. Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.

otherwise prepared for painting as soon as practicable after preparation and before subsequent surface 1. Re-coat Time: Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firms, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of

2. Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

C. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to those items exposed to mechanical equipment rooms and in occupied spaces. 1. Mechanical items to be painted include, but are not limited to, the following: a. Piping, pipe hangers, and supports.

 Roof mounted mechanical units. c. Ductwork, where exposed in occupied spaces. d. Motor, mechanical equipment, and supports. e. Accessory items.

ropiness or other surface imperfections will not be acceptable.

otherwise damage finished surfaces

"P"-shade primer.

2. Electrical items to be painted include, but are not limited to, the following: a. Conduit and fittings. D. Prime Coats: Apply prime coat of material which is required to be painted or finished, and which has not been prime coated by others. 1. Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing. E. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags,

F. Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements. FIELD QUALITY CONTROL A. Owner will engage services of an independent testing laboratory to sample paint being used.

Samples of materials delivered to project site will be taken, identified and sealed, and certified in presence

Testing laboratory will perform appropriate tests for any or all of following characteristics:

Abrasion resistance, apparent reflectivity, flexibility, washability, absorption, accelerated weathering, dry opacity, accelerated yellowness, recoating, skinning, color retention, alkali resistance and quantitative materials analysis. B. If test results show that material being used does not comply with specified requirements, Contractor may be directed to stop painting work, and remove non-complying paint; pay for testing; repaint surfaces coated with rejected paint; remove rejected paint from previously painted surfaces if, upon

epainting with specified paint, the two coatings are non-compatible CLEAN-UP AND PROTECTION A. Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each work day. . Upon completion of painting work, clean window glass and other paint spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using car not to scratch or

B. **Protection:** Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable 1. Provide "Wet Paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting

2. At completion of work of other trades, touch-up and restore all damaged or defaced painted 3.6 INTERIOR PAINT SCHEDULE A. **General**: Provide the following paint systems for the various substrates as indicated below or equivalent system from approved manufacturers listed above.

B. Gypsum Board - Walls, Ceilings, Gypsum Board, Etc. – Eggshell Finish Preparation: Fill cracks and holes with patching paste/spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust. Finish exposed gypsum surfaces to Level 5 finish. Sherwin-Williams - Vinyl Acrylic Systems 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W02600 Series – use

2nd Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series 3rd Coat: S-W ProMar 200 Zero VOC Latex Eg-Shel, B20-2600 Series Finish: Eggshell Sheen (at 85 degrees): 15 - 20 units Thickness (Mils per coat): 4 wet; 1.7 dry. E. Gypsum Board - Walls, Ceilings, Gypsum Board, Etc. - Semi-gloss Finish

Sheen (at 85 degrees): 0 - 5 units.

Sheen (at 85 degrees): 0 - 5 units.

Sheen (at 85 degrees): 0 - 5 units

Thickness (Mils per coat): 4 wet; 1.5 dry.

gypsum surfaces to Level 5 finish.

Sherwin-Williams - Vinyl Acrylic

Finish: Flat

Thickness: (Mils per coat) 4 wet; 1.5 dry.

Preparation: Fill cracks and holes with patching paste/spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust. Finish exposed gypsum surfaces to Level 5 finish. Sherwin-Williams - Vinyl Acrylic Systems 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28W02600 Series - use "P"shade primer. Finish: Flat

Thickness: (Mils per coat) 4 wet; 1.5 dry. 2nd Coat: S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series 3rd Coat: S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series Finish: Semi-gloss Sheen (at 60 degrees): 25 - 35 units Thickness (Mils per coat): 4 wet; 1.5 dry. F. Drywall - Interior behind Wall Panels, Casework etc.

Preparation: Fill cracks and holes with patching paste/spackle and sand smooth. Joint

compounds must be cured and sanded smooth. Remove all sanding dust. Finish exposed

1st Coat: S-W ProMar 200 Zero VOC Interior Latex Wall, Primer, B28W2600 Series.

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PROJECT & PRODUCT SPECIFICATIONS

SECTION 08 7100 DOOR HARDWARE

PART 1 - PRODUCTS

1.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows: 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door

hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule. . **Substitutions**: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants. 1.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity: a. Two Hinges: For doors with heights up to 60 inches.

b. Three Hinges: For doors with heights 61 to 90 inches. c. Four Hinges: For doors with heights 91 to 120 inches. d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30

inches of door height greater than 120 inches. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified. b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified. 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight. b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges

unless Hardware Sets indicate heavy weight. 4. Hinge Options: Comply with the following: a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove

in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable Manufacturers:

a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK). b. Stanley Hardware (ST).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

 Manufacturers: a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK). b. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE). C. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 certified pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed teflon coated stainless pin, and twin self lubricated nylon bearings at each knuckle separation. Factory trim hinges to

 Manufacturers: a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR). b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).

c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE). 1.3 DOOR OPERATING TRIM A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

suit door height and prepare for electrical cut-outs.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor. Furnish dust proof strikes for bottom bolts.

Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable. 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.

B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open

Manufacturers: a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

lever and inactive-leaf release trigger. Model as indicated in hardware sets. Manufacturers: Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where

conflicting hardware dictates. 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.

2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated. 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated. 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. Manufacturers:

a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO). b. Trimco (TC).

1.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy. B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

> **C. Cylinders**: Original manufacturer cylinders complying with the following: Mortise Type: Threaded cylinders with rings and cams to suit hardware application.

Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim Bored-Lock Type: Cylinders with tailpieces to suit locks.

4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes. Keyway: Match Facility Restricted Keyway.

D. High Security Cylinders: ANSI/BHMA A156.5, Grade 1 High security cylinder conforming to UL437, including both pick and drill resistance. Pick resistance incorporates two or more independent locking mechanisms including a pin tumbler device with six top pin chambers, mushroom-shaped driver pins, and coded sidebar locking mechanism operated independently from the six top pin tumbler device. Drill resistance incorporates cylinder housing with fixed case-hardened inserts protecting the pin tumbler shear line, cylinder plugs with case-hardened inserts protecting both the pin tumbler shear line and the side bar, mushroom-shaped stainless steel driver pins, and stainless steel sidepins. Cylinders to be factory keyed. Manufacturers:

 a. ASSA (AA) – V10 Series. **E. Keying System**: Each type of lock and cylinders to be factory keyed. Conduct specified "Keying Conference" to define and document keying system instructions and 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control

Existing System: Key locks to Owner's existing system. F. Key Quantity: Provide the following minimum number of kevs:

number as directed by Owner.

Change Keys per Cylinder: Two (2) Master Keys (per Master Key Level/Group): Five (5).

G. Key Registration List (Bitting List): 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software. 2. Provide transcript list in writing or electronic file as directed by the Owner.

1.5 MECHANICAL LOCKS AND LATCHING DEVICES A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

 Manufacturers: a. Corbin Russwin Hardware (RU) – ML2000 Series.

 Sargent Manufacturing (SA) – 8200 Series. c. Schlage (SC) – L9000 Series.

1.6 LOCK AND LATCH STRIKES A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as

hardware applications

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.

Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue

B. Standards: Comply with the following: Strikes for Mortise Locks and Latches: BHMA A156.13.

Strikes for Bored Locks and Latches: BHMA A156.2. Strikes for Auxiliary Deadlocks: BHMA A156.36.

4. Dustproof Strikes: BHMA A156.16.

1.7 CONVENTIONAL EXIT DEVICES A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria: 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and

labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets. 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific

requirements. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets. 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the

push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration. 5. Electromechanical Options: Subject to same compliance standards and requirements as mechanical exit devices, electrified devices to be of type and design as specified in hardware sets.

Include any specific controllers when conventional power supplies are not sufficient to provide the proper inrush current. 6. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not

7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts. a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match

that of the specified locksets. b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor. 9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.

10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar. 11. Rail Sizing: Provide exit device rails factory sized for proper door width application. 12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets. SECTION 08 7100 DOOR HARDWARE (continues)

use of fire rated doors.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch

to be stainless steel, pullman type, with deadlock feature. Manufacturers:

a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series. b. Sargent Manufacturing (SA) - 80 Series.

c. Von Duprin (VD) - 35A/98 XP Series. 1.8 DOOR CLOSERS A. All door closers specified herein shall meet or exceed the following criteria: 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL. 4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics. 7. Closer Accessories: Provide door closer accessories including custom templates, special

mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adiustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-

critical valves for closing sweep and latch speed control. Provide non-handed units standard. Manufacturers: a. Corbin Russwin Hardware (RU) – DC6000 Series.

b. LCN Closers (LC) - 4040 Series. c. Sargent Manufacturing (SA) - 351 Series.

d. Norton Door Controls (NO) - 7500 Series. 1.9 SURFACE MOUNTED CLOSER HOLDERS

A. Closer Holder Release Devices: ANSI A156.15 certified closer holder release devices designed to hold open fire or smoke rated doors until interruption of signal from fire alarm, smoke detector or remote release switch. . Pull side, push side, or double egress mounting applications available with non-handed track and closer body and dual voltage input (24V/120V). Voltage to be 24VDC unless otherwise specified. Where optional detector is required, provide integral photo electric type with LED indicator. Auxiliary door stops are required at hold open point.

 Manufacturers: a. Norton Door Controls (NO) - 7700PT(D) Series.

b. Rixson Door Controls (RF) - Smok-Chek VI Series c. Sargent Manufacturing (SA) -351 EHT(D) Series.

B. Multi-Point Closer Holders with Motion Sensor: ANSI A156.15, Grade 1 certified multi-point, closer holder devices designed to keep doors in a held-open position if presence is detected within the opening. Push side or pull side mounting applications having a maximum opening of 180° (hold open to 175°) and dual voltage input (24V /120V). Voltage to be 24VDC unless otherwise specified. Units are fail safe, closing the door in the event of fire alarm system or electrical power interruption.

1. Safe Zone Detection: Closer holders units to have an integral motion sensor device monitoring a "zone of safety" at the door opening. Safe zone detection prevents the door from closing in event of movement within the adjustable sensing field. Movement is detectable in both directions with selectable closer hold open time and senor sensitivity. Provide optional handheld device for programming safe zone sensor settings. Manufacturers:

a. Norton Door Controls (NO) - 7100SZ Series. C. Electromagnetic Door Holders: Certified ANSI A156.15 electromagnetic door holder/releases with

a minimum 20 to 40 pounds holding power and single coil construction able to accommodate.12VDC, 24VAC, 24VDC and 120VAC. Coils to be independently wound, employing an integral fuse and armatures to include a positive release button. Manufacturers:

 Rixson (RF) - 980/990 Series. b. Sargent Manufacturing (SA) - 1560 Series. 1.10 ARCHITECTURAL TRIM

A. Door Protective Trim General: Door protective trim units to be of type and design as specified below or in the Hardware

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets. 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

a. Stainless Steel: 300 grade, 050-inch thick. 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

Manufacturers: a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO). b. Trimco (TC).

1.11 DOOR STOPS AND HOLDERS

Manufacturers:

A. General: Door stops and holders to be of type and design as specified below or in the Hardware B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede

traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders. Manufacturers: a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

b. Trimco (TC). C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

 Rixson Door Controls (RF). b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

c. Sargent Manufacturing (SA). 1.12 ARCHITECTURAL SEALS A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below

light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated. B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784. 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke,

testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C. 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a

Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies. D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated. E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily

replaceable and readily available from stocks maintained by manufacturer. F. Manufacturers: National Guard Products (NG). 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

Reese Enterprises, Inc. (RE). A. Fasteners: Provide door hardware manufactured to comply with published templates generally

prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended. 1.14 FINISHES A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

EXECUTION 1.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance. B. Notify Architect of any discrepancies or conflicts between the door schedule, door types, drawings

1.2 PREPARATION A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series. **B. Wood Doors**: Comply with ANSI/DHI A115-W series.

1.3 INSTALLATION A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications. 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and

and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations: 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for

Standard Steel Doors and Frames." 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility

Guidelines for Buildings and Facilities." 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located. C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants." E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in

report whether work complies with or deviates from requirements, including whether door hardware is

1.4 FIELD QUALITY CONTROL

properly installed, operating and adjusted.

SECTION 08 7100 DOOR HARDWARE (continues)

electromechanical door hardware.

1.5 ADJUSTING A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to

comply with referenced accessibility requirements. 1.6 CLEANING AND PROTECTION A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed

hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame. **B.** Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy. 1.7 DEMONSTRATION A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and

DOOR HARDWARE SETS A. The hardware sets represent the design intent and direction of the owner and architect. They are a

guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality. B. The supplier is responsible for handing and sizing all products as listed in the door hardware sets.

Quantities listed are for each pair of doors, or for each single door. C. Manufacturer's Abbreviations MK - McKinnev PE - Pemko

MC - Medeco

9. HS - HES RF - Rixson

MR - Markar 4. RO - Rockwood

SA - Sargent SU - Securitron AA - ASSA High Security Locks

11. NO - Norton

3 Hinge, Full Mortise TA2714 (NRP) US26D MK 1 Cylindrical Lock (office) CL3351 NZD CMK 626 RU Surface Closer CLP7500 689 NO

1 Kick Plate K1050 10" US32D RO

1 Door Bottom STC411APK PE

1 GasketingS442BL PE

NOTE TO THE BIDDERS:

01 2300 ALTERNATES

RELATED DOCUMENTS A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

A. This Section includes administrative and procedural requirements for alternates. DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract

B. The cost or credit for each alternate is the net addition to or deduction from the Contract **Sum** to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

A. **Coordination**: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project. B. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate. C. **Notification**: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates. D. Execution of Work: Execute accepted alternates under the same conditions as other work of

E. **Schedule**: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PRODUCTS - NOT USED

EXECUTION

SCHEDULE OF ALTERNATES Alternate No. 1 – Replace ceiling tiles and ceiling grids in rooms PRIVATE RADIOLOGY READING 201, RADIOLOGY READING 202 and PRIVATE RADIOLOGY READING 203 Base Bid: Existing to remain.

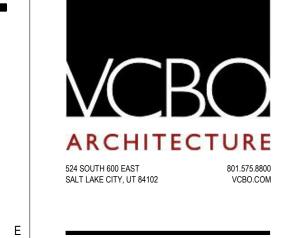
> . <u>Alternate (Additive)</u>: Provide a bid estimate for the work related to the replacement of ceiling grids and ceiling tiles in the rooms noted above, with the following product: Armstrong "Ultima", 2x4 Square Lay-In.

B. <u>Alternate No. 2</u> – Add acoustical panels (floor to ceiling) on all walls in rooms RADIOLOGY READING 202 and PRIVATE RADIOLOGY READING 203. Base Bid: Existing to remain. Alternate (Additive): Provide a bid estimate for the work related to: a. Demolition / removal of existing acoustical panels.

b. Preparation of wall surfaces for new acoustical panels.

c. Material and installation of new acoustical panels in the rooms noted above, with the following product: i. Product: J2 Systems Pet Felt Panels. ii. Color: 28 Dark Gray. iii. 12 mm., 4' x 8' panels, field cut. Adhere to wall using construction

Alternate No. 3 - Provide and install a VAV box in room PRIVATE RADIOLOGY READING Base Bid: Existing to remain. Alternate (Additive): Provide a bid estimate for the work related to the installation of a





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PROJECT & PRODUCT SPECIFICATIONS