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ADDENDUM NO. TWO

TO: Bidders

DATE: March 5, 2016

RE: Franklin Middle School Entry Vestibule Remodel School District No. 25 2271 E. Terry Pocatello, Idaho

This Addendum forms a part of the Contract Documents and modifies the original Bidding Drawings dated **February 2016**, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification. The following information is being issued to General Contractors only. It is the obligation of the Contractor to notify his Subcontractors and suppliers of items relating to their bids prior to bid opening. This Addendum consists of <u>15</u> page(s) and <u>6</u> drawing(s).

I - CHANGES TO PRIOR ADDENDA: NONE

II - CHANGES TO BIDDING REQUIREMENTS:

Item II-1. Bid Form. Bid Form Attachment No. 1 - Alternate Bids (page 4). Delete page, no alternate bids on this project.

III - CHANGES TO CONDITIONS OF THE CONTRACT: NONE

IV - CHANGES TO AGREEMENT & OTHER CONTRACT FORMS: NONE

V - CHANGES TO SPECIFICATIONS:

- Item V-1. Section 08 0601, Hardware Group. Add entire section, 2 pages attached.
- Item V-2. Section 09 5113, Acoustic Panel Ceilings. Add entire section, 2 pages attached.
- Item V-3. Section 09 5323, Metal Acoustic Suspension Assemblies. Add entire section, 2 pages attached.
- Item V-4. Section 07 5419, PVC Membrane Roofing. Add entire section, 7 pages attached.
- Item V-5. Section 09 6000, Flooring. Indoor / outdoor tile shall be Mannington Recoarse II By Pass Black #1518.
- Item V-6. Section 09 6513, Article 2.1, 5, c, 1. Change to "Heavy Duty Diamond Rubber Stair Tread by Johnsonite."
 - Add paragraph 4. Rubber Stair Treads (Diamond Pattern) by Burke.
 - Add paragraph 5. Heavy Duty Rubber Stair Treads by Flexco.
 - Add paragraph 6. Stair Treads (Diamond Design) by Roppe.

VI - CHANGES TO DRAWINGS:

- Item VI-1. For Door and Frame Types and Frame Profiles see Sheet AD1-1, attached.
- Item VI-2. For Door Details see Sheet AD1-2 and AD1-4, attached.
- Item VI-3. For Door Schedule see Sheet AD1-3, attached.
- Item VI-4. Sheet A1.4, Ceiling Plan Demolition. Add note as follows. Remove existing ceiling finish complete and prepare area as required for new work. Note applies to existing Vestibule ceiling and exterior canopy soffit.
- Item VI-5. Sheet A1.4, Ceiling Plan Remodel. In addition to the gypsum board ceiling shown, install suspended ceiling system with 2'X4' panels to allow concealment of mechanical duct work. Modify mechanical system for suspended ceiling and provide ceiling grilles as required.
- Item VI-6. Sheet A4.1, Wall Section A & B. Change Top Brg Wall Elevation from 109'-0" to 110'-0" (entire structure). Change Top Parapet Elevation from that shown to 113'-6" (entire structure).
- Item VI-7. Sheet A2.2, Section B. Install suspended ceiling at elevation 109'-0".
- Item VI-8. Sheet A1.4, Stair Section A. Delete detail and see sheet AD1-6 for both stair runs. Use riser dimension 6 5/8" as shown on Section B/A2.2.
- Item VI-9. Sheet A1.4. Salvage and relocate existing wall mounted Knox-Box as directed by Architect.

Item VI-10. Sheet A3.1. Add roof ladder to East masonry wall. See sheet AD1-5, attached.

Item VI-11. Sheet A1.4. Provide 6" deep x 30" wide x full ceiling height mechanical chase in Northwest corner of room to conceal roof drain leaders. Install 4" diameter Roof Drain Leader and overflow (see B/A2.2). Run pipe below roof structure and conceal above suspended ceiling, slope to drain. Run RDL & overflow pipe down wall and daylight them through wall at 16" above finish floor. Insulate pipe and install JR Smith 1770 downspout nozzle with ring flush with the building. Provide concrete splash block as directed by Architect.

END of ADDENDUM

SECTION 07 5419

THERMOPLASTIC MEMBRANE ROOFING / PVC

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited to
 - 1. Install roofing membrane with flashings and other components to comprise total roofing system.
- B. Products Installed But Not Furnished Under This Section
 - 1. Sheet metal work including caps, sleeves, umbrella hoods, pipe enclosure boxes, and strapping.
- C. Related Work
 - 1. Section 07628 Sheet metal work

1.2 SUBMITTALS

- A. Product Data Roofing Manufacturer's literature or cut sheet for each element of system
- B. Shop Drawings Prepared by Roofing Manufacturer or its representative. Include outline of roof and roof size, location and type of penetrations, perimeter and penetration details, special details, and bill of materials.
- C. Quality Assurance / Control
 - 1. Two copies of Roofing Manufacturer's published specification for Architect and maintain one at job-site.
 - 2. Roofing Manufacturer's certification of Installer.
 - Submit evidence that roof system has been tested and approved or listed as follows a. FM Class 1-90
 - b. UL Class A assembly
 - b. UL Class A assembly
- D. Closeout Submit record shop drawings to Roofing Manufacturer, if requested. Record shop drawings shall be given shop drawing number by Roofing Manufacturer.

1.3 QUALITY ASSURANCE

- A. Qualifications
 - 1. Roofing system shall be applied by Applicator authorized by Roofing Manufacturer prior to bid.
 - 2. Membrane and flashing installation shall be performed by personnel trained and authorized by Roofing Manufacturer.
 - Welding equipment shall be provided by or approved by Roofing Manufacturer. Mechanics intending to use equipment shall have successfully completed training course provided by Manufacturer's Technical Representative prior to welding.
- B. Regulatory Requirements
 - 1. Metal details, fabrication practices, and installation methods shall conform to applicable requirements of following
 - a. Factory Mutual Loss Prevention Data Sheet 1-49 (latest issue).
 - b. Sheet Metal and Air Conditioning Contractors National Association Inc, 5th edition.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver products job site in original unopened containers or wrappings bearing all seals and approvals.

- B. Handle materials to prevent damage. Place materials on pallets and fully protect from moisture.
- C. Store membrane rolls lying down on pallets fully protected from weather with clean canvas tarpaulins.
- D. Do not store or use flammable adhesives vicinity of open flames, sparks, and excessive heat.
 - 1. Store adhesives at temperatures above 40 deg F.
 - 2. Store flammable materials in cool, dry area away from sparks and open flames. Follow precautions outlined on containers or supplied by material manufacturer/supplier.
- E. Remove from job site materials which are determined to be damaged by Architect or by Roofing Manufacturer and replaced at no additional cost to Owner.
- F. Take precautions that storage and application of materials and equipment does not overload roof deck or building structure.

1.5 PROJECT CONDITIONS

- A. Project Environmental Requirements
 - 1. Temperature ranges shall be within tolerances allowed for material being used.
 - Follow Manufacturer's instructions for cold temperature installation. Follow specified precautions for storage of materials and expose only enough adhesive to be used as directed by membrane manufacturer.
 - 3. Roof surface shall be free of ponding water, ice, and snow.
 - 4. Do not expose membrane and accessories to constant temperature in excess of 180 deg F.

1.6 WARRANTY

- A. Membrane Manufacturer's written 20 year warranty covering roofing system, including insulation and membrane degradation.
- B. Membrane Manufacturer's written 20 year warranty covering PVC membrane and flashings.
- C. Written 2 year guarantee covering workmanship and repairs or replacement of work without cost to Owner, counter-signed by Installer and Contractor.

PART 2 PRODUCTS

2.1 MEMBRANE

- A. Spread coat manufactured, fiberglass reinforced PVC with an environmental surface coating.
 - 1. Surface color White
 - 2. Membrane thickness
 - a. Sika Sarnafil 0.60 inch thick by optimum width and length determined by job conditions.
 - b. FiberTite 0.45 inch thick by optimum width and length determined by job conditions. Nominal thickness as determined by ASTM D-751.
- B. Approved Manufacturers -
 - 1. Sika Sarnafil Inc., Canton, Mass (800) 451-2504, www.sikacorp.com.
 - 2. FiberTite Roofing Systems, Seamon Corporation, Wooster, OH (800) 927-8578 www.fibertite.com.
 - 3. Equal approved by Architect prior to bidding.

2.3 ACCESSORIES

- A. Adhesives
 - 1. Sarnacol 2121 roller grade adhesive.
 - 2. As supplied by Membrane Manufacturer.

- B. Leveling layer 5/8 inch Dens-Deck Prime supplied by Membrane Manufacturer.
- C. Insulation
 - 1. FM or UL approved.
 - 2. Single layer 1-1/2" thick polyisocyanurate with 5 year aged 'R' value of insulation of 10. Install number of layers as shown on drawings.
- D. Coated Metal
 - 1. Sarnaclad 25 ga G90 galvanized sheet metal laminated with 0.020 inch thick membrane. Color to match selected roof membrane.
 - 2. Sarnclad membrane cover strips
 - a. 0.060 inch thick
 - b. Color to match selected Sarnaclad.
- E. Prefabricated Flashing Accessories Membrane corners and pipe stacks as supplied by Membrane manufacturer.
- F. Mechanical Attachment Accessories
 - 1 Fasteners Sarnafasteners or engineered fasteners designed to anchor membrane and flashing into substrates that include steel, concrete, gypsum, and light weight concrete roof decks.
 - Bars And Plates Bars and plates engineered as companion assembly with Sarnafasteners. Used to secure membrane and/or flashing. Includes 26 gauge galvanized or stainless steel Sarnabar, extruded aluminum Sarnareglet, Galvalume Sarnaplate, 18 ga Sarnadisc and 1 inch wide Sarnastop.
- G. Traffic Surface
 - 1. Factory fabricated 30 inches by 30 inches roof pads.
- H. Pourable Sealer Compatible with materials with which it is used, furnished by Membrane Manufacturer.
- I. Counterflashing Formed to meet design requirements and match existing metals and aesthetics, furnished by Membrane Manufacturer.
- J. Sealants And Pitch Pocket Fillers As accepted by Roofing Manufacturer under specified warranty.
- K. Miscellaneous Fasteners and Anchors Compatible with substrates and flashings to be anchored. Mixing metal types and methods of contact shall be in such a manner as to avoid galvanic corrosion.

PART 3 EXECUTION

3.1 PREPARATION

- A. General
 - Verify that roof drain lines are functioning correctly before starting work of this Section. Report such blockages in writing to Owner's representative, with copy to Roofing Manufacturer, for corrective action before beginning work of this Section.
 - Remove existing roofing, base flashing, deteriorated wood blocking, and deteriorated metal flashings. Remove only that amount of existing roofing and flashing which can be made watertight with new materials during a one day period or onset of inclement weather.
 - 3. Stop work immediately if any unusual or concealed condition is discovered and immediately notify Owner in writing, with letter copy to Roofing Manufacturer.
- B. Inspect for defects such as excessive surface roughness, contamination, structural inadequacy, or any other condition that will adversely affect quality of work.
 - 1. Steel Deck Bring rusted or deteriorated decking to attention of Project Manager to determine method of treatment or replacement. As directed by Project Manager, lightly

sand rusted metal and treat with rust-inhibiting paint or remove and replace sections which have rusted through. Deck attachment shall conform to FM Data Sheet I-28 and local code requirements.

- Poured Structural Concrete Deck Surface shall be smooth, level, and free of moisture or frost. Remove sharp ridges, other projections, and accumulations of bitumen above surface to ensure smooth surface before roofing. Repair deteriorated decking.
- Wood Deck Surface shall be smooth, level, and free of moisture or frost. Remove sharp ridges, other projections, and accumulations of bitumen above surface to ensure smooth surface before roofing. Repair deteriorated decking.
- C. Install continuous treated wood nailers at perimeter of entire roof and around roof projections and penetrations as described on Project Drawings. Replace existing wood nailers shown to remain, if they contain rot or are otherwise damaged.
 - Anchor nailers to resist minimum force of 300 pounds per lineal foot in any direction. Provide 1/2 inch space between nailer lengths. Individual nailer lengths shall not be less than 36 inches long. Nailer fastener spacing shall be at 12 inches on center, or 16 inches if necessary to match structural framing. Stagger fasteners 1/3 nailer width and install within 6 inches of each end. Meet requirements current Factory Mutual Loss Prevention Data Sheet 1-49.
 - 2. Thickness shall match substrate or insulation height.
 - Anchor existing woodwork which is to remain so as to resist minimum force of 300 pounds per lineal foot in any direction. Reuse only woodwork designated to be reused in detail drawings.
- D. Substrate shall be clean, smooth, dry, free of flaws, sharp edges, loose and foreign material, oil and grease. Roofing shall not start until defects have been corrected.

3.2 INSTALLATION

- A. General
 - Roof surfaces shall be free of water, ice and snow. Surfaces to receive new insulation, membrane, or flashings shall be dry. Should surface moisture occur, provide equipment necessary to dry surface before application.
 - 2. Secure new and temporary construction, including equipment and accessories, so as to preclude wind blow-off and subsequent roof or equipment damage.
 - 3. Install only as much roofing as can be made weathertight each day, including flashing and detail work. Clean seams and heat-weld before leaving jobsite.
 - 4. Schedule and execute work without exposing interior building areas to effects of inclement weather. Protect existing building and its contents against all risks.
 - 5. Install uninterrupted waterstops at end of each day's work and completely remove before proceeding with next day's work. Waterstops shall not emit dangerous or unsafe fumes and shall not remain in contact with finished roof as installation progresses. Replace contaminated membrane at no additional cost to Owner.
 - 6. Avoid use of newly-constructed roofing as walking surface or for equipment movement and storage. Where such access is required, provide necessary protection and barriers to segregate work area and to prevent damage to adjacent areas. Provide protection layer consisting of plywood over insulation board and roofing membrane for new and existing roof areas which receive rooftop traffic during construction.
 - 7. Before and during application, remove dirt, debris, and dust from surfaces either by vacuuming, sweeping, blowing with compressed air, or similar methods.
 - 8. Report rooftop contamination that is anticipated or that is occurring to Roofing Manufacturer to determine corrective steps to be taken.
- B. Vapor Retarder / Air Barrier Installation
 - Steel Deck Deck Lay vapor retarder directly over deck with side and end joints sealed in accordance with manufacturer's instructions. Vapor retarder may be loosely laid or adhered with adhesive supplied or recommended by same manufacturer.
 - Poured Structural Concrete Decks Adhere base sheet vapor retarder to deck with full mopping of type III steep asphalt at rate of 25 lbs per 100 sq ft minimum. Install vapor retarder in accordance with manufacturer's instructions. Conduct moisture and adhesion tests.

C. Insulation

- 1. Where specified or required, install insulation as recovery layer over existing substrate and to obtain desired thermal value. Existing roof assembly shall be dry.
- 2. Neatly cut insulation cut to fit around penetrations and projections.
- 3. Install tapered insulation in accordance with insulation manufacturer's shop drawings.
- 4. Install tapered insulation around drains creating a drain sump.
- 5. Do not install more insulation board than can be covered with rooifing membrane by end of day's work or onset of inclement weather.
- 6. Mechanical Attachment
 - a. Fasten to deck with approved fasteners and plates in accordance with insulation manufacturer's, Factory Mutual's, and Roofing Manufacturer's recommendations for fastening rates and patterns. Quantity and locations of fasteners and plates shall also result in insulation boards resting evenly on roof deck/substrate so there are no large cavities or air spaces between boards and substrate.
 - b. Install fasteners in accordance with fastener manufacturer's recommendations. Fasteners are to have minimum penetration into structural deck as recommended by Fastener Manufacturer and Roofing Manufacturer.
 - c. Sarnabar fastened 12 inches on center to structural deck with approved fasteners is required. Install Sarnabar 48 inches in from roof edge around entire perimeter of roof area, clamping assembly together. Sarnabar shall have coverstrip hot air welded over it.
- D. Membrane
 - 1. Inspect surface of insulation or substrate before installation of roof membrane. Substrate shall be clean, dry and smooth with no excessive surface roughness, contaminated surfaces or unsound surfaces such as broken, delaminated, or damaged insulation boards.
 - 2. Adhesive
 - a. Apply adhesive using solvent-resistant 3/4 inch nap paint rollers. Apply adhesive in smooth, even coating with no holidays, globs, puddles, or similar irregularities. Coat only area which can be completely covered in same day's operations with adhesive.
 - b. Apply adhesive rate of application per manufacturer's recommendations.
 - c. Apply no adhesive in seam areas.
 - 4. Hot-Air Welding Of Lap Areas
 - a. General -
 - 1) Seams shall be hot air welded. Seam overlaps shall be 3 inches wide minimum when automatic machine welding, and 4 inches wide when hand welding.
 - 2) Membrane to be welded shall be clean and dry. No adhesive shall be in seam.
 - 3) Hand Welding -
 - 1) Hand welded seams shall be completed in three stages. Allow hot-air welding equipment to warm up for one minute minimum before welding.
 - 2) Seam shall be tack-welded every 36 inches to hold membrane in place.
 - Weld back edge of seam with narrow but continuous weld to prevent loss of hot air during final welding.
 - 4) Insert nozzle into seam at 45 degree angle. Once proper welding temperature has been reached and membrane begins to 'flow', position hand roller perpendicular to nozzle and press lightly. For straight seams, use 1-1/2 inch wide nozzle. Use 3/4 inch wide nozzle for corners and compound connections.
 - Machine Welding Follow Roofing Manufacturer's instructions and use recommended equipment.
 - d. Quality Control of Welded Seams Check welded seams for continuity using rounded screwdriver. Make on-site evaluation of welded seams daily at locations directed by Owner's Representative or representative of Roofing Manufacturer. Take one inch wide cross-section samples of welded seams at least three times a day. Patch each test cut at no additional cost to Owner.
- E. Walkway Pads
 - 1. Mark lines on membrane to determine location and direction(s) of walkway network. Membrane surface shall be clean.
 - 2. Provide 36 inch wide roll Sarnatred traffic / walkway pads.
 - 3. Adhere walkway pads to membrane per manufacturer's recommendations.

- F. Flashings
 - 1. General
 - a. Install flashings concurrently with roof membrane. No temporary flashings will be allowed without prior written approval of Owner's Representative and Roofing Manufacturer. Approval shall only be for specific locations on specific dates.
 - b. If water is allowed to enter under newly completed roofing, remove and replace affected area no additional cost to Owner.
 - c. Adhere flashings to compatible, dry, smooth, and solvent-resistant surfaces.
 - 2. Membrane Flashings
 - a. Adhesive Application for Flashings -
 - Apply adhesive using solvent-resistant 3/4 inch nap paint rollers. Apply adhesive in smooth, even coatings with no holidays, globs, or similar irregularities. Coat only area which can be completely covered in same day's operations. Allow surface with adhesive coating to dry completely prior to installing flashing membrane.
 - 2) When surface is dry, cut flashing membrane to workable length and evenly coat underside with adhesive at rate of 1/2 gal per 100 sq ft. When adhesive has dried sufficiently to produce strings when touched with a dry finger, roll coated membrane onto previously coated substrate being careful to avoid wrinkles. Do not allow adhesive on underside of membrane to completely dry. Overlap adjacent sheets 3 inches. Flashings shall extend 4 inches onto roofing membrane. Press bonded sheet firmly in place with hand roller.
 - 3) Apply no adhesive in seam areas that are to be welded.
 - b. Install Sarnastop fastened 12 inches on center with acceptable fasteners into structural deck at the base of parapets, walls, and curbs. Also install Sarnastop at the base of tapered edge strips and at transitions, peaks, and valleys according to Roofing Manufacturer's details.
 - c. Extend flashings 8 inches minimum above roofing level unless otherwise accepted in writing by Owner's representative and Roofing Manufacturer.
 - d. Adhere flashing membranes to solvent resistant substrates. Cut interior and exterior corners and miters and hot-air weld into place. No bitumen shall be in contact with membrane.
 - e. Mechanically fasten flashing membranes along top edge through tin discs or predrilled, galvanized metal strip washers spaced at of 12 inches maximum on center.
 - f. Terminate flashings according to Roofing Manufacturer's recommended details. Metal Flashings -
 - a. Complete metal work in conjunction with roofing and flashings so that watertight condition exists daily.
 - b. Install metal to provide adequate resistance to bending and allow for normal thermal expansion and contraction.
 - c. Metal joints shall be watertight.
 - d. Securely fasten metal flashings into solid wood blocking. Fasteners shall penetrate wood nailer one inch minimum.
 - e. Airtight and continuous metal hook strips are required behind metal fascias. Fasten hook strips 12 inches on center into wood nailer or masonry wall.
 - f. Counterflashings shall overlap base flashings 4 inches minimum.
 - g. Sarnaclad Metal Base Flashings Space adjacent sheets of Sarnaclad 1/4 inch apart. Fasten ends of Sarnaclad metal 6 inches on center. Cover joint with 2 inch wide aluminum tape. Hot-air weld 4 inch wide strip of flashing membrane over joint.
 - h. Sarnaclad Metal Edge Flashing Fasten metal edge flashings with two rows of postgalvanized flat head annular ring nails, 4 inches on center staggered. Space adjacent sheets of Sarnaclad metal 1/4 inch apart. Cover joint with 2 inch wide aluminum tape. Hot-air weld 4 inch wide strip of flashing membrane over joint.
- G. Temporary Cut-Off

3.

 Construct temporary waterstops to provide 100 percent watertight seal. Make stagger of insulation joints even by installing partial panels of insulation. Carry new membrane into waterstop. Seal waterstop to deck or substrate so water will not travel under new or existing roofing. Seal edge of membrane in continuous heavy application of sealant as described above. When work resumes, cut-out contaminated membrane and dispose of off-site.

- 2. If inclement weather occurs while temporary waterstop is in place, provide labor necessary to monitor situation to maintain watertight condition.
- 3. If water is allowed to enter under newly-completed roofing, remove affected area and replace at no additional cost to Owner.

3.3 FIELD QUALITY CONTROL

A. Upon completion of installation, and delivery to Roofing Manufacturer by Applicator of certification that installation has been performed in accordance with Contract Documents and Roofing Manufacturer's requirements, installed roofing system shall be inspected by technical representative of Roofing Manufacturer.

3.4 CLEANING

- A. Remove demolished material and roofing waste materials from site daily to dumping area legally authorized to receive such materials.
- B. Complete site cleanup, including both interior and exterior building areas which have been affected by construction, to Owner's satisfaction.
- C. Repair landscaped areas damaged by construction activities at no additional cost to Owner.

END OF SECTION

SECTION 08 0601

HARDWARE GROUP AND KEYING SCHEDULES

PART 1 - HARDWARE GROUP SCHEDULE for ALUMINUM DOORS

1.1 SINGLE DOORS:

Group ST-1 1 each 1 each 1 each 1 each 1 each 1 set 1 each	Door A101, B101, G101 - Continuous Hinge - Entry Door Exit Device (Panic Exit Hardware) with dogging capability - Closer - Pull - Threshold - Weatherstrip - Stop
Group ST-1B	Door C101
1 each	- Continuous Hinge
1 each	 Entry Door Exit Device (Panic Exit Hardware) with dogging capability and Locking Cylinder
1 each	- Electric Card Reader
1 each	- Closer
1 each	- Pull
1 each	- Threshold
1 set	- Weatherstrip
1 each	- Stop
Group ST3	Door DA101, E101, F101
1 each	- Continuous Hinge
1 each	- Closer
1 each	- Push
1 each	- Pull
1 each	- Threshold
1 set	- Weatherstrip
1 each	- Stop

PART 2 - HARDWARE GROUP SCHEDULE for FINISH HARDWARE

2.1 DEFINITIONS

- A. Builders Hardware Manufacturer's Association (BHMA) Hardware Functions:
 - 1. F-75 Passage Latch: Latch bolt operated by knob / lever from either side at all times.
 - F-76 Privacy Lock: Latch bolt operated by knob / lever from either side. Outside knob / lever locked by push button inside and unlocked by emergency key from outside or rotating knob / lever from inside.
 - 3. F-81 Office Door Lock: Dead locking latch bolt operated by knob / lever from either side, except when outside knob / lever is locked by turn button in inside knob/lever. When outside knob / lever is locked, latch bolt is operated by key in outside knob/lever or by rotating inside knob / lever. Turn button must be manually rotated to unlock outside knob / lever.
 - 4. F-84 Classroom Deadlock: Dead locking latch bolt operated by knob / lever from either side, except when outside knob / lever is locked, latch bolt is operated by key in outside knob / lever or by rotating inside knob / lever.
 - 5. F-86 Utility Space Door Lock: Dead locking latch bolt operated by key in outside knob / lever or by rotating inside knob / lever. Outside knob / lever is always fixed.

- 6. F-91 Latch And Deadlocks: Dead locking latch bolt operated by key from both sides.
- 7. E-2142 Deadbolt: Dead bolt operated by key from either side. Bolt automatically dead locks when fully thrown.
- 8. E-2152 Deadbolt: Dead bolt operated by key from outside and turn button from inside. Bolt automatically dead locks when fully thrown.

PART 3 - KEYING SCHEDULE for FINISH HARDWARE

- 3.1 Coordinate keying schedule with Owner Locksmith Brain Richardson. Contractor to prepare doors for specified hardware and install hardware.
 - A. Owner provided hardware.
 - 1. Locking cylinder and keys.
 - 2. Electric card reader / operator.

SECTION 09 5113

ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To:
 - 1. Furnish and install acoustical ceiling panels for suspended acoustical ceilings as described in Contract Documents.

1.2 SUBMITTALS

- A. Action Submittals:
 - 1. Sample: Two sample panels.
- B. Closeout Submittals:
 - 1. Operations And Maintenance Data: Include following in Operations And Maintenance Manual specified in Section 10 7800.
 - a. Manufacturer's literature.
 - b. Color and pattern selection.
- C. Maintenance Material Submittals:
 - 1. Extra Stock Materials:
 - a. Provide Owner with one carton of each type of tile for future use.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Store materials where protected from moisture and damage.
- B. Use no soiled, scratched, or broken material in the Work.

1.4 FIELD CONDITIONS

A. Ambient Conditions: Building shall be enclosed, mechanical system operating with proper filters in place, and temperature and humidity conditions stabilized within limits under which Project will operate before, during, and after installation until Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Acoustic Panels:
 - 1. Finish: Abuse-resistant / durable.
 - 2. Rating: Match UL fire-resistance classification of suspension system.
 - 3. Thickness: 3/4 inch 19 mm minimum.
 - 4. Category Four Acceptable Manufacturers. See Section 01 6200.
 - a. Armstrong World Industries Co, Lancaster, PA www.armstrong.com.
 - b. Celotex, Tampa, FL www.bpb-na.com.
 - c. Eurostone by Chicago Metallic Corp, Chicago, IL www.chicago-metallic.com.
 - d. USG Inc, Chicago, IL www.usg.com.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Inspect for defects in support that are not acceptable. Report defects to Architect in writing. Do not install ceiling panels until defects in support are corrected.

3.2 INSTALLATION

- A. Materials shall be dry and clean at time of application.
- B. If recommended by Manufacturer, use tile one at a time from at least four open boxes to avoid creating any pattern due to slight variations from box to box. Use tile from same color run in individual rooms to assure color match.
- C. Leave tile in true plane with straight, even joints.

3.3 ADJUSTING

- A. 'Touch-up' minor abraded surfaces.
- B. Remove and replace discolored panels to match adjacent panels.
- C. Remove and replace damaged panels at no additional cost to Owner.

3.4 CLEANING

A. Remove from site all debris connected with work of this Section.

END OF SECTION

SECTION 09 5323

METAL ACOUSTICAL SUSPENSION ASSEMBLIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To:
 - 1. Furnish and install acoustical suspension system as described in Contract Documents.
- B. Related Requirements:
 - 1. Section 09 5113: Acoustical ceiling panels.
 - 2. Section 26 5100: Interior light fixtures.

1.2 REFERENCES

- A. Reference Standards:
 - 1. ASTM International:
 - a. ASTM C 635-00, 'Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.'
 - ASTM C 636-06, 'Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.'

1.3 QUALITY ASSURANCE

A. Regulatory Requirements: Meet seismic bracing requirements of 1994 UBC Standard 25-2, Section 1621.2.5.2 of 2000 IBC, or equivalent governing standard for Project site.

PART 2 - PRODUCTS

2.1 SYSTEM

- A. Manufacturers:
 - 1. Type One Acceptable Manufacturers:
 - a. Armstrong World Industries, Lancaster, PA www.armstrong.com.
 - b. Chicago Metallic Corporation, Chicago, IL www.chicagometallic.com.
 - c. USG Inc, Chicago, IL www.usg.com.
 - d. Equal as approved by Architect before bidding. See Section 01 6200.

B. Materials:

- 1. Grid:
 - Systems shall meet requirements of ASTM C 635, Intermediate Duty or Heavy Duty suspension system.
 - b. Exposed surfaces shall be finished with factory-applied white baked enamel.
 - c. Main runners and cross T's shall have one inch exposed face.
- 2. Performance Standards: DX Systems by USG Interiors.
- 3. Hanger Wire: 12 gauge cold-rolled electro-galvanized steel.
- 4. Edge Molding: Channel section of cold-rolled electro-galvanized steel. Use 7/8 inch edge molding where AHJ allows.
- 5. Hold-down Clips: As required by UL to prevent lifting of panels under unusual draft conditions.

3.1 INSTALLATION

- A. Work shall be in accordance with Manufacturer's recommendations insofar as they are concerned with Contract Documents. Installation shall meet requirements of ASTM C 636.
- B. Lay out suspension system symmetrically about center lines of room unless shown otherwise by Drawings. Lay out system so use of tiles less than 1/2 size is minimized.
- C. Maintain suspension system in true plane with straight, even joints.
- D. Suspension system joints shall be straight and in alignment, and exposed surface flush and level. Wherever system abuts walls, columns, and other vertical surfaces, furnish and install appropriate molding.
- E. Locate light fixtures, speakers, and mechanical diffusers and grilles symmetrically in room insofar as possible (unless shown otherwise). Locate fixtures, speakers, diffusers, and grilles within suspension grid spaces and centered at least one direction within grid.
- F. Pay particular attention to required hanger wire placement and fixture protection. Individual component deflection not to exceed 1/360 of span.

END OF SECTION