



State of Utah

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Governor

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Lieutenant Governor

Department of Administrative Services

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Executive Director

Division of Facilities Construction and Management

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Director

ADDENDUM #1

Date: September 28, 2009

To: Contractors

From: Mike Ambre, Project Manager, DFCM

Reference: Bookstore Remodel
Utah Valley University - Orem – Utah
Project No. 09172790

Subject: **Addendum No. 1**

Pages	Addendum	1 page
	<u>Architects Addendum</u>	<u>44 pages</u>
	Total	45 pages

Note: *This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.*

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

1.1 **SCHEDULE CHANGES** – There are no changes to the project schedule.

1.2 **GENERAL** –Method Sudio. Please see attached.

Utah!
Where ideas connect

ADDENDUM NO. #1

September 18, 2009

PROJECT: UVU Bookstore Remodel – Sorensen
Center
800 West University Pkwy, Orem, Utah
84058
OWNER: DFCM
4110 State Office Bldg.
SLC, UT 84114

ARCHITECT: Method Studio

242 South 400 East
Salt Lake City, UT 84111
Phone: 801.532.4422 fax:801.328.4187
Contact: Joe Smith
Email: Joe@method-studio.com

PROJECT NO.: 09172790

ARCHITECT'S
PROJECT NO.: 09.0330

TO ALL BIDDERS:

This Addendum forms a part of the Contract Documents and is intended to amend, alter, expand, modify or clarify the original Bidding Documents dated August 31, 2009. Receipt of this Addendum must be acknowledged in the space provided in the Bid Form. Failure may subject the bidder to disqualification.

SPECIFIC QUESTIONS/ANSWERS:

- 1-1 **Are you keeping the bookstore open during construction?** – Yes, the bookstore will need to remain operational at all times during construction with the possible exception of one Saturday. The contractor will need to coordinate and schedule with the Bookstore, Fixture Contractor and Faculty's Team for all work. The copy center will be phased as the first phase. The new copy center will need to be complete before moving or shutting down the old copy center. Any electrical or utility shutdown will need to be coordinated with bookstore and Faculty's team. The construction in the bookstore (phase 2) will need to be done in such a way as to allow the bookstore to remain open. Possible areas closing, Bookstore hour's modification, or evening / weekend work will need to be coordinated with bookstore management.
- 1-2 **Who is the security system provider? is this part of the contract?**- Yes, merchandise security equipment , wiring, pedestals, conduit, mounting equipment, etc... shall be included in contract. The contractor shall provide a complete installation and fully functioning Electronic Article Surveillance (EAS) system (similar to existing system). The owner will provide video security system. Contractor shall coordinate and provide conduit along with power for both systems. See Attachment (EAS System).
- 1-3 **Is the Voice/data part of the contract?** – The telephone/data is going to be done by the owner through a separate contract. Please see the electrical drawings for the scope of work. Conduits, raceways and boxes shall be installed. The owner is responsible for contracting /pulling and terminating all wiring.
- 1-4 **I am assuming the card reader are part of your security system contractor? demo by security guys?** - The merchandise security contractor shall provide a fully functioning merchandise monitoring system. The owner will provide video monitoring system and demo of existing video system.
- 1-5 **Regarding the weather tight temp. wall, would you allow visqueen or does it have to be a finished drywall/framed wall?**
- Dust / Security walls shall be done according to scheduling and coordination with bookstore. Interior walls may be visqueen temporary walls. Exterior / corridor walls shall be drywall / plywood stud framed walls. Contractor shall provide secure barrier to prevent theft.
- 1-6 **Don't see specs on the overhead coiling door?** The overhead door specifications are included in this addendum. Please see section 08335-Overhead coiling grilles.
- 1-7 **Will the carpet be carpet tile** – Yes, The carpet will be an interface carpet tile – style: urban grid, color: mint.
- 1-8 **2x2 suspended ceiling?** – For the edge trim, please use the Armstrong Berc-2 clips or equal. Do NOT use a 2" perimeter angle.

CLARIFICATIONS TO THE BID DOCUMENTS:

Revise/Add to the bid documents as follows:

None

CLARIFICATIONS TO THE SPECIFICATIONS:

Revise/Add to the specifications as follows:

- 1-9 **Section 08335, Overhead coiling grilles.** This spec section has been added to the project manual. See attached spec.
- 1-10 **Section 08490, Sliding Mall Front system.** This spec section has been added to the project manual. See attached spec.
- 1-11 **Section 08581, Pass Thru windows.** This spec section has been added to the project manual. See attached spec.
- 1-12 **Section 09680, Carpet.** - This spec section has been updated. See attached spec.
- 1-13 **Section 09511, Acoustical Tile Ceiling.** - This spec section shall replace the existing section.
- 1-14 **Section 08811, Decorative Glass Glazing.** This spec section has been added to the project manual. See attached spec.

CLARIFICATIONS TO THE DRAWINGS:

Revise/Add to the drawings as follows:

- 1-15 **Sheet GI001** – A deferred submittal list has been added to sheet GI001. See attached SDA1.01
- 1-16 **Sheet GI002** – The code analysis and building data has been updated to reflect compliance with the 2008 NEC. See attached SDA1.02
- 1-17 **Sheet a401 Enlarged Plans** – Note 17 has been changed to “provide metal panels to replace existing lower glazing (match existing conditions)”
- 1-18 **Sheet a210 and a211 – Interior Elevations** Elevation D1 and window types B5/Type E, has been modified to reflect changes in the copy center (102A) sliding transaction window and to the glazing, see attached sheet SDA1.03. B5, D3, and C3 have been modified to reflect clarification in the glazing, see sheet SDA1.04.
- 1-19 **Sheet IF101 – Existing Furniture Layout** – This Existing layout has been added to show existing conditions.
- 1-20 **Sheet IF101b – New Furniture Layout** - The new furniture fixture layout has been added to show new layout to be done under separate furniture fixture contract. This will need to be coordinated and scheduled with the Bookstore and fixture contractor.

CLARIFICATIONS TO MECHANICAL DOCUMENTS: See attached mechanical addendum from WHW.

CLARIFICATIONS TO ELECTRICAL DOCUMENTS: See attached electrical addendum from ECE.

END OF ADDENDUM ONE

Electronic Article Surveillance (EAS) system:

Basis-of-Design: Contractor is to provide the following or equal as approved by architect and owner.

Manuf.: Sensormatic

Product/Model: Ultra-post III

Number of pedestals required: as indicated in the drawings (12). The number could vary according to manufactures pedestal spacing requirements. Contractor is to verify openings and provide system appropriate for conditions.

Number of merchandise tags required: Contractor to provide a variation of detention tags and labels. Min of 1000 clothing tags and 1000 ultra strips shall be provided.

Software: by manufacture as required.

SECTION 08335 - OVERHEAD COILING GRILLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes Aluminum overhead coiling grilles.
- B. Design, construction and preparation of openings, access panels; field wiring, wire conduit, fuses, disconnect switches; finish or field painting are excluded (unless powder coat finish is provided).
- C. Related Section:
 - 1. Division 05 Section "Metal Fabrications" for miscellaneous steel supports.

1.3 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Overhead coiling grilles shall withstand the effects of earthquake motions determined according to SEI/ASCE 7.

1.4 SUBMITTALS

- A. Product Data: For each type and size of overhead coiling grille and accessory.
- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Wiring Diagrams: For power, signal, and control wiring.
- C. Samples: For each exposed product and for each color and texture specified.
- D. Seismic Qualification Certificates: For overhead coiling grilles, accessories, and components, from manufacturer.
- E. Maintenance data.

1.5 QUALITY ASSURANCE

- A. **Installer Qualifications:** Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.
- B. **Electrical Components, Devices, and Accessories:** Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. **Curtain:**
 - 1. Horizontal Rods to consist of extruded aluminum, 7/8 inch (22 mm) by 1/2 inch (13 mm) horizontal hinge system spaced at 4 inches (102 mm) on center.
 - 2. Polycarbonate windows to be 1/16 inch (0.83 mm) thick by 3-1/4 inches (83 mm) by 33 inches (838 mm) with 1/8 inch (3 mm) by 1/2 inch (13 mm) by 3-1/2 inches (89 mm) vertical aluminum I-links spaced at 35 inches (889 mm) centers.
 - a. Polycarbonate sheet: consisting of clear, flame retardant GE Lexan or equal.
- B. **Bottom Bar** is a rectangular shape extruded from 6063-alloy aluminum, attached to the bottom of the curtain and finished to match grille.
 - 1. Astragal: Equip each grille bottom bar with a replaceable, adjustable, continuous, compressible gasket of flexible vinyl, rubber, or neoprene as a cushion bumper.
 - 2. Provide motor-operated grilles with combination bottom astragal and sensor edge.
- C. **Barrel** is steel tubing or pipe, 6" minimum diameter, to contain counterbalance assembly and support the curtain with a maximum deflection of 0.03 per ft. of width. Counterbalance assembly consists of coil tempered helical torsion spring(s) mounted on a cold rolled steel shaft, rotating through a sealed bearing. Welding is not to be used to attach plug to barrel at spring end. Spring tensions adjustable by a tension wheel outside of bracket.
- D. **Brackets** are steel plates, 1/4" minimum thickness, bolted to guides, to support barrel and curtain and provide attachment for hood. Bracket on operator side is fitted with a ball or roller bearing.
- E. **Hood** is as indicated:
 - 1. Is formed from 24-gauge Electro-Galvanized steel sheet with stiffening flange on top and bottom to limit deflection. (to match existing).
 - 2. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.
 - 3. Retain subparagraph below for concealed installations. Metal soffit is not often used. Indicate location and size on Drawings.

4. Removable Metal Soffit: Of same material and finish as curtain if hood is mounted above ceiling, unless otherwise indicated.
- F. **Guides** are rectangular shapes extruded from 6063-alloy aluminum, formed to retain curtain and fitted with wool pile strips. Guides are attached to jambs with ¼” minimum bolts spaced not more than 24” on center.
1. Removable curtain stops are provided.
- G. **Operation** is as indicated:
1. MOTOR – Push button, key, or remote activation of an electric operated, as shown on this submittal.
- H. **Locking** is as indicated:
1. CYLINDER LOCK on the bottom bar (Double throw-bolt activated by center thumb turn or key, operable from inside, outside, or both sides of door, as indicated and shown on this submittal)
 - a. Cylinder Inside - Standard Schlage Keyway Cylinder
 - b. Lock Cylinders: Provide cylinders standard with manufacturer and keyed to building keying system. Retain subparagraph below if cylinders are provided by grille manufacturer.
 - c. Keys: Three for each cylinder.
 2. Safety Interlock Switch: Equip power-operated grilles with safety interlock switch to disengage power supply when grille is locked.

2.2 MANUFACTURERS

- A. Subject to compliance with requirements, provide products by one of the following.
 Basis-of-Design Product: Subject to compliance with requirements, provide Alumatec Pacific-Products Model: **LXR** or comparable product by one of the following manufacturers:
- a. ACME Rolling Doors.
 - b. Alpine Overhead Doors, Inc.
 - c. Alumatec Pacific Products
 - d. City-Gates.
 - e. Cookson Company.
 - f. Cornell Iron Works, Inc.
 - g. Dynaflair Corporation.
 - h. Dynamic Closures Corp.
 - i. Lawrence Roll-Up Doors, Inc.
 - j. Mahon Door Corporation.
 - k. McKeon Rolling Steel Door Company, Inc.
 - l. Metro Door.
 - m. Overhead Door Corporation.
 - n. Raynor.
 - o. Windsor Door.
- B. Operation Cycles: Not less than 10,000

2.3 FINISHES

- A. Aluminum curtain finish as indicated:
 - 1. Clear Anodized (standard)
- B. Bottom bar, Bottom bar cap/flange plate, and guides finish as indicated:
 - 1. Clear Anodized;
- C. Exposed steel surfaces are painted with a rust-inhibiting gray or black primer.

2.4 ACCESSORIES

- A. Mounting Frame: Manufacturer's standard mounting frame designed to support grille; factory fabricated from ASTM A 36/A 36M structural-steel tubes, primed and painted to match existing; fastened to floor and structure above grille; to be built into wall construction; and complete with anchors, connections, and fasteners.

2.5 ELECTRIC GRILLE OPERATORS

- A. General: Electric grille operator assembly of size and capacity recommended and provided by grille manufacturer for grille and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking grille, and accessories required for proper operation.
 - 1. Comply with NFPA 70.
 - 2. Provide control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24 V, ac or dc.
- B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each grille.
- C. Electric Motors: Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements specified in Division 11 Section "Common Motor Requirements for Equipment" unless otherwise indicated.
 - 1. Electrical Characteristics:
 - a. Phase: Single phase.
 - b. Volts: 115
 - c. Hertz: 60.
 - 2. Motor Type and Controller: Reversible motor and controller (disconnect switch) for motor exposure indicated.
 - 3. Motor Size: Minimum size as indicated. If not indicated, large enough to start, accelerate, and operate grille in either direction from any position, at a speed not less than **8 in./sec. (203 mm/s)** and not more than **12 in./sec. (305 mm/s)**, without exceeding nameplate ratings or service factor.

4. Operating Controls, Controllers (Disconnect Switches), Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
- D. Remote-Control Station: Momentary-contact, three-button control station with push-button controls labeled "Open," "Close," and "Stop"; interior units, full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure, key operated
- E. Emergency Manual Operation: Equip each electrically powered grille with capability for emergency manual operation. Design manual mechanism so required force for grille operation does not exceed **25 lbf (111 N)** [**30 lbf (133 N)**].
- F. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.
- G. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install overhead coiling grilles and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
- B. Adjust hardware and moving parts to function smoothly so that grilles operate easily, free of warp, twist, or distortion. Lubricate bearings and sliding parts as recommended by manufacturer.

3.2 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain overhead coiling grilles.

END OF SECTION 08335

SECTION 08490 - SLIDING MALL FRONT SYSTEM

PART 1 – GENERAL

1.01 SUMMARY

- A. Related Documents: Conditions of the Contract, Division 1 - General Requirements, and Drawings apply to Work of this Section.
- B. Section Includes:
 - 1. Aluminum sliding mall front system, complete with reinforcing, fasteners, anchors, attachment devices, and door hardware.
 - 2. Aluminum doors within system.
 - 3. Accessories necessary to complete work.
- C. Related Sections:
 - 1. Section 05500 - Metal Fabrications.
 - 2. Section 06100 - Rough Carpentry.
 - 3. Section 07920 - Sealants and Calking: Perimeter sealants and backup materials.
 - 4. Section 0841X - Aluminum Entrances and Storefronts.
 - 5. Section 08710 - Door Hardware.

1.02 REFERENCES

- A. Aluminum Association (AA):
 - 1. DAF-45 Designation System For Aluminum Finishes.
- B. American Architectural Manufacturers Association (AAMA):
 - 1. 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
 - 2. 611 Voluntary Specification for Anodized Architectural Aluminum.
 - 3. 701 Voluntary Specifications for Pile Weather-stripping and Replaceable Fenestration Weather-seals.
 - 6. CW-10 Care and Handling of Architectural Aluminum From Shop to Site.
 - 7. SFM-1 Aluminum Storefront and Entrance Manual.
- C. American Society for Testing and Materials (ASTM):
 - 1. A36 Structural Steel.
 - 2. A123 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 3. B209 Aluminum and Aluminum - Alloy Sheet and Plate.
 - 4. B221 Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
 - 5. E283 Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.
 - 6. E330 Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 - 7. E331 Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
- D. Glass Association of North America (GANA)
 - 1. Glazing Manual
- E. Steel Structures Painting Council (SSPC):
 - 1. Cold Applied Asphalt Mastic (Extra Thick Film).

1.03 SYSTEM REQUIREMENTS

A. Design Requirements:

1. Drawings are diagrammatic and do not purport to identify nor solve problems of thermal or structural movement, glazing, anchorage, or moisture disposal.
2. Requirements shown by details are intended to establish basic dimension of units, sight lines and profiles of members.
3. Provide concealed fastening wherever possible.
4. Provide entrance and storefront systems, including necessary modifications, to meet specified requirements and maintaining visual design concepts.
5. Attachment considerations are to take into account site peculiarities and expansion and contraction movements so there is no possibility of loosening, weakening or fracturing connection between units and building structure or between units themselves.
6. Anchors, fasteners and braces shall be structurally stressed not more than 50% of allowable stress when maximum loads are applied.
7. Provide for expansion and contraction due to structural movement without detriment to appearance or performance.
8. Assemblies shall be free from rattles, wind whistles and noise due to thermal and structural movement and wind pressure.
9. Not Permitted: Vibration harmonics, wind whistles, noises caused by thermal movement, thermal movement transmitted to other building elements, loosening, weakening, or fracturing of attachments or components of system.

1.04 SUBMITTALS

A. General: Submit in accordance with Section 01300.

B. Product Data:

1. Submit manufacturer's descriptive literature and product specifications.
2. Include information for factory finish, hardware, glazing accessories and other required components

C. Shop Drawings:

1. Submit shop drawings indicating design, fabrication and installation of systems.
2. Include dimensional plans and elevations.
3. Include large-scale details of typical members, glazing components and accessories.
4. Include attachments to adjacent materials.
5. Include hardware details and locations.

D. Samples:

1. Submit samples indicating quality of finish on alloys used for work, 12inch lengths.
2. Where normal color and texture variations are expected, include additional samples to show range of such variations.

E. Qualification Data: Submit certification of installers qualifications issued by system manufacturer.

F. Manufacturer's Instructions: Submit manufacturer's printed installation instructions.

1.05 QUALITY ASSURANCE

A. Single Source Responsibility:

1. To ensure quality of appearance and performance, obtain materials for systems from either a single manufacturer or from manufacturer approved by systems manufacturer.

B. Perform Work in accordance with AAMA SFM-1 and manufacturer's written instructions.

C. Conform to requirements of ANSI A117.1 and local amendments.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of Section 01600.

1.07 WARRANTY

- A. Provide warranties in accordance with Section 01700.
- B. Provide written warranty in form acceptable to Owner jointly signed by manufacturer, installer and Contractor warranting work to be free from defective materials, defective workmanship, glass breakage due to defective design, and agreeing to replace components which fail within 1 year from date of Substantial Completion.

PART 2 – PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS

- A. Subject to compliance with requirements indicated, provide products by one of the following:
 - 1. Vistawall Architectural Products, Terrell, TX
 - 2. Arcadia Architectural Products, Inc.
 - 3. EFCO Corporation.
 - 4. Fleetwood Aluminum Products, Inc.
 - 5. Graham Architectural Products.
 - 6. Hydro Aluminum North America.
 - 7. Kawneer North America; an Alcoa company.
 - 8. Milgard Windows.
 - 9. MI Windows and Doors, Inc.
 - 10. Peterson Architectural Products.
 - 11. Plaza Door Co., Inc.
 - 12. Thermal Windows, Inc.
 - 13. TRACO.

2.02 MATERIALS

- A. Extruded Aluminum:
 - 1. ASTM B221, alloy and temper as recommended by manufacturer for strength, corrosion resistance and application of specified finish.
- B. Anchorage Devices:
 - 1. Manufacturer's standard formed or fabricates steel or aluminum assemblies of shapes, plates, bars or tubes.
 - 2. Hot-dip galvanize steel assemblies after fabrication. Comply with ASTM A123, 2.0 ounce minimum coating.
- C. Fasteners:
 - 1. Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be non-corrosive and compatible with component being fastened.
 - 2. Do not use exposed fasteners, except where unavoidable for application of hardware.
 - 3. For exposed locations, provide Phillips flathead screws with finish matching item fastened.
 - 4. For concealed locations, provide manufacturer's standard fasteners.
- D. Expansion Anchor Devices: Lead-shield or toothed-steel, drilled-in, expansion bolt anchors.
- E. Protective Coating: Cold-applied asphalt mastic complying with SSPC-Paint 12, compounded for 30mil thickness for each coat.
- F. Glazing Gaskets:
 - 1. Compression type design, replaceable, molded or extruded, neoprene, polyvinyl chloride (PVC) or ethylene propylene diene monomer (EPDM).
 - 2. Conform to ASTM C509 or C864.
 - 3. Profile and hardness as required, to maintain uniform pressure for watertight seal.

- G. Weather-stripping: Wool pile conforming to AAMA 701.2; or extruded elastomeric conforming to ASTM C509 or C864.

2.03 GLASS AND GLAZING ACCESSORIES

- A. Refer to Section 08810.

2.04 HARDWARE

A. Hardware for Sliding Assemblies:

1. Track: Manufacturer's standard design and finish, complete with appropriate support assemblies.
2. Bottom rail casters and top rail guides: Manufacturers standard design and finish.
3. Cylinders: To match existing
4. Limit stops/bumpers: Manufacturer's standard design, resilient type.
5. Finish: To Match Existing Sliding Door.
6. Hardware to be provided by manufacturer, any hardware not supplied by sliding door manufacture shall be supplied by contractor (submit samples to architect) ie: rails, cylinders, locks, stops, guides, seals, bolts, bumpers, handles, silencers, etc...
- 7.
9. Opening-Force Requirements:
 - a. Egress Doors: Not more than 15 lbf (67 N) to release the latch and not more than 30 lbf (133 N) to set the door in motion and not more than 15 lbf (67 N) to open the door to its minimum required width.
 - c. Accessible Interior Doors: Not more than 5 lbf (22.2 N) to fully open door.

2.05 FABRICATION

- A. Fabricate assemblies to allow for adequate clearances and shim spacing around perimeter of assemblies to enable proper installation.
- B. Accurately and rigidly fit joints and corners.
- C. Match components to ensure continuity of line and design.
- D. Ensure joints and connections are flush and hairline tight.
- E. Apply protective coating on concealed aluminum surfaces in contact with cementitious or dissimilar materials.
- F. Size units to allow for tolerances of rough framed openings, clearances, and shim spacing around perimeter of assemblies.
- G. Fabricate assemblies to ensure that sliding units cannot be removed when in locked position.
- H. Aluminum Framing:
 1. Fabricate members of size, shape and profile indicated.
 2. Reinforce internally with structural members as necessary to support design loads.
 3. Provide flashings and other materials used internally or externally that are corrosive resistant, non-staining, non-bleeding and compatible with adjoining materials.
- I. Hardware:
 1. Cut, reinforce, drill and tap frames and doors as required to receive hardware.
 2. Comply with hardware manufacturer's templates and instruction.
 3. Use concealed fasteners wherever possible.
- J. Welding:
 1. Comply with recommendations of the American Welding Society.
 2. Use recommended electrodes and methods to avoid distortion and discoloration.
 3. Grind exposed welds smooth and flush with adjacent surfaces; restore mechanical finish.

2.06 FINISH

- C. Color Anodized:

1. Conforming to AA-M12C22A42 or A43 or A44 and AAMA 611.
2. Architectural Class I, etched, medium matte, dark bronze (color to match existing) provide samples

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Examine conditions and proceed with Work in accordance with Section 01400.

3.02 INSTALLATION

- A. Install assemblies in accordance with approved shop drawings.
- B. Set level, square, plumb and in alignment with other work. Provide proper support and anchor components securely.
- C. Ensure joints are hairline tight with surfaces of adjacent components flush with each other.
- D. Separate aluminum from concrete and dissimilar metals with 30mil thick protective coating.
- E. Glazing: Refer to requirements of Section 08810.

3.03 ADJUSTING

- A. Test operating functions of sliding units and hardware. Adjust in accordance with manufacturer's instructions to ensure smooth operation.

3.04 CLEANING

- A. Clean surface promptly after installation, exercising care to avoid damage of finishes.

END OF SECTION 083213

Section 08581 Pass-Thru Windows

PART 1 GENERAL

1.1. SECTION INCLUDES

Pass Thru Windows

1.2. RELATED SECTIONS

- A. Section 07620 – Sheet Metal Flashings
- B. Section 07920 – Joint Sealants

1.3. REFERENCES

- A. ASTM B209 - Aluminum and Aluminum Alloy - Sheet and Plate
- B. ASTM B221 - Aluminum and Aluminum - Alloy Extruded Bars, Rods, Wire, Profile and Tubes
- C. ASTM C1048 - Heat-Treated Flat Glass - Coated and Uncoated Glass

1.4. SUBMITTALS

- A. Submit under provisions of Section 01300 – Submittal Procedures
- B. Product Data – Submit manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Required finish.
 - 4. Installation methods.
- C. Shop Drawings - Submit manufacturer's shop drawings, including plans, elevations, sections and details, indicating dimensions, tolerances, materials, fabrication, glazing, fasteners, hardware, finish, options and accessories.
- D. Samples – Submit manufacturer's samples of standard finishes.
- E. Manufacturer's certification – Submit manufacturer's printed information in sufficient detail substantiating that products comply with specified requirements and are suitable for intended application.
- F. Operation and Maintenance Manual – Submit manufacturer's operation and maintenance manual, including operation, maintenance, adjustment and cleaning instructions, troubleshooting guide, and parts.

1.5. QUALITY ASSURANCE

- A. Manufacturer's Qualifications – Minimum of 15 years successful experience continuously manufacturing pass-thru windows.

1.6. DELIVERY, STORAGE AND HANDLING

- A. Ordering - Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- B. Delivery – Deliver materials to site in manufacturer's original, unopened shipping containers and packaging, with labels clearly identifying product name and manufacturer.
- C. Storage – Store materials in clean, dry area indoors covered to protect factory finishes from damage, precipitation, and construction dirt until ready for installation.
- D. Handling – Protect materials and finish from damage during handling and installation.

1.7. PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature and humidity) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8. WARRANTY

- A. Provide manufacturer's warranty that installed pass-thru window will be free from significant defects in material, and workmanship for one (1) year from date of Substantial Completion.
- B. Warrant anodized aluminum finish for five (5) years from date of substantial completion.
- C. For custom colour powder coat finishes, provide paint manufacturer's warranty for colour and film integrity for at least three (3) years from date of application.
- D. For glazing, provide glazing manufacturer's standard warranty against defective materials, delamination, seal failure and defects in manufacturing for at least five (5) years from date of manufacture.

PART 2 PRODUCTS

2.1. ACCEPTABLE MANUFACTURER

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Action Bullet Resistant Corp.; a division of Action Storefronts, Inc.
 - b. Collier Safe Company, Inc.
 - c. Creative Industries, Inc.
 - d. Easi-Serv Products Inc.

Easi-Serv Products Inc.
211-12899 76th Ave

Surrey, B.C.
Canada V3W 1E6
Phone (604) 590-0106
Fax (604) 590-1334
URL www.easi-serv.com
e-mail sales@easi-serv.com

- e. General Electric Company; GE Polymersshapes Insulgard.
- f. Laurence, C. R. Co. Inc.
- g. National Bullet Proof, Inc.
- h. Quikserv Corp.
- i. Safeguard Security Services, Ltd.
- j. United States Bullet Proofing, Inc.

2.2. IN-LINE PASS-THRU WINDOWS

A. In-Line Pass-Thru Windows: In-Line Side-Slider Manual Open/Close Window

Service Opening:	(Field verify existing conditions)
Opening Direction:	Left to Right (when viewed from outside) Field verify
Window Operation:	
Open:	Manual
Close:	Manual
Window Type:	Side-sliding, one moving panel
Frame:	Extruded Aluminum
Bottom Sill:	Integral window guide track
Security Lock:	Automatic self locking Adams Rite Deadlatch MS1848-11 with aluminum spring loaded thumb latch Adams-Rite 1000- 21-23.
Security Bar:	Drop down aluminum lock bar
Fasteners:	Robertson Head zinc plated self-tapping machine screws and stainless steel rivets.
Handle:	7" Aluminum Handle Taymor Industries 25-4007.
Glazing:	1/4" Clear /Tinted (to match existing) Tempered Glass
Weatherproofing:	Interlocking jambs between moving panel and frame Interlocking jambs between moving panel and fixed panel. Double mohair seals on all edges of moving panel.
Glazing Sealant:	Face Vinyl - Extruded Polymers for Glazing, Inc. FC-120 Silicon Glazing Sealant: CR Laurence Category 33S Clear/Black

2.3. ALUMINUM FINISH

- A. Anodized
Bronze, AA-M10-C22-A34

2.4. Fabrication

- A. Assembly – Factory assembled, factory glazed.

PART 3 EXECUTION

3.1. EXAMINATION

- A. Examine areas to receive pass-thru windows. Notify architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2. PREPARATION

- A. Ensure openings to receive pass-thru windows are plumb, level, square, accurately aligned, correctly located and in tolerance.

3.3. INSTALLATION

- A. Install pass-thru windows in accordance with manufacturer's installation instructions.
- B. Install pass-thru windows plumb, level, square, true to line and without warp or rack.
- C. Anchor pass-thru window securely in place to supports. Use attachment methods permitting adjustment for construction tolerances, irregularities, alignment, and expansion and contraction.
- D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.
- E. Install sheet metal flashings as specified in Section 07620.
- F. Install joint sealants as specified in Section 07920.
- G. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- H. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

3.4. ADJUSTING

- A. Adjust moving panels to be tight in closed position.
- B. Adjust doors and operating hardware to function properly and for smooth operation without binding.

3.5. CLEANING

- A. Clean pass-thru windows promptly after installation in accordance with manufacturer's instructions.
- B. Remove excess joint sealant in accordance with sealant manufacturer's instructions.
- C. Use only approved cleaning agents and materials that will not damage glazing or finish.

3.6. PROTECTION

- A. Protect installed pass-thru window to ensure that, except for normal weathering, pass-thru windows will be without damage or deterioration at time of substantial completion.

END OF SECTION

SECTION 088113 - DECORATIVE GLASS GLAZING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following decorative glass:
 - 1. Patterned.
 - 2. Laminated, with decorative interlayers.
 - 3. Silk-screened.
 - 4. Acid etched.
 - 5. Sandblasted.
 - 6. Beveled.
 - 7. Decorative film overlay.
- B. See Division 08 Section "Glazing" for general requirements for properties of annealed and heat-treated float glass and for glazing.

1.2 PERFORMANCE

- A. Provide decorative glass and glazing capable of withstanding normal thermal movement and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; deterioration of glazing materials; or other defects in construction.
- B. Glass Design: Glass thickness designations indicated on Drawings are minimums and shall not be reduced.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include details of fabrication and installation.
 - 1. Size and location of penetrations.
 - 2. Glazing method.
 - 3. Mounting method.
 - 4. Attachments to other work.
 - 5. Full-size details of beveled-edge profiles.
- C. Samples: 12 inches (300 mm) square; for each type of decorative glass product.
- D. Maintenance data.

1.4 QUALITY ASSURANCE

- A. Safety Glazing Products: Comply with testing requirements in 16 CFR 1201.
- B. Glazing Publications: Comply with published recommendations of glass product manufacturers, GANA Laminated Division's "Laminated Glass Design Guide," and GANA's "Glazing Manual," unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
- C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
 - 1. Build mockups as shown on Drawings.
 - 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- D. Preinstallation Conference: Conduct conference at Project site.

1.5 WARRANTY

- A. Manufacturer's Special Warranty on Laminated Glass: Manufacturer's standard form, made out to Owner and signed by laminated-glass manufacturer, agreeing to replace laminated-glass units that develop defects from normal use including edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard, f.o.b. the nearest shipping point to Project site, within specified warranty period indicated below.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 ACID-ETCHED GLASS

- A. Acid-Etched-Glass Units Kind FT fully tempered.
 - 1. Product: Subject to compliance with requirements.
 - 2. Patterns: Match Architect's samples.
 - 3. Silicone Back Coating: Recommended by glass fabricator for shop application.
 - a. Color: Match Architect's samples.

2.2 SANDBLASTED GLASS

- A. Sandblasted-Glass Units: Kind FT fully tempered.
 - 1. Product: Subject to compliance with requirements.

2. Retain subparagraph above if a single product is required for Project. Retain first subparagraph and associated subparagraph below if pattern is common to more than one manufacturer or if slight product variation is acceptable for Project.
3. Patterns: Match Architect's samples.
4. Antifingerprint Coating: Protective coating recommended and provided by glass fabricator.
5. Acid-Etched Finish: Acid etch glass maintaining detail of sandblasted pattern, according to manufacturer's standard process.

2.3 DECORATIVE FILM OVERLAY

- A. Cast PVC Film: Translucent, dimensionally stable cast PVC film, 2-mil- (0.05-mm-) minimum thickness, with pressure-sensitive clear adhesive back for adhering to glass and releasable protective backing.
 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited, to the following:
 2. Products: Subject to compliance with requirements, provide one of the following:
 - a. Avery Dennison Graphics Division; Etchmark A5861-S.
 - b. FDC Graphic Films, Inc.; Series 2100/2200, 007 Frosted Silver Metallic.
 - c. Spar-Cal Division, Spartan International; Etchlight.
 - d. 3M Commercial Graphics Division; Scotchcal Dusted Crystal.
 - e. 3M Commercial Graphics Division; Scotchcal Frosted Crystal.
 3. Use: Exterior and interior applications.
 4. Outdoor Durability: Not less than five years.

2.4 DECORATIVE-GLASS FABRICATION

- A. Clean cut or flat grind vertical edges of butt-glazed lites in a manner that produces square edges with slight kerfs.
- B. Cast PVC Film: Apply squarely aligned to glass edges, uniformly smooth, and free from tears, air bubbles, wrinkles, and rough edges, in single sheet completely overlaying in pattern indicated on Drawings to the back face of clean glass, according to manufacturer's written instructions, including surface preparation and application temperature limitations.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set decorative-glass units in each series true in line with uniform orientation, pattern, draw, bow, and similar characteristics.
- B. Install glazing as specified in Division 08 Section "Glazing."

- C. Set decorative glass in locations indicated on Drawings.
- D. END OF SECTION 088113

SECTION 09511 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes ceilings consisting of acoustical panels and exposed suspension systems.

1.3 SUBMITTALS

- A. Product Data: For each type of product specified.
- B. Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following:
 - 1. Ceiling suspension system members.
 - 2. Method of attaching suspension system hangers to building structure.
 - 3. Ceiling-mounted items including light fixtures; air outlets and inlets; speakers; sprinklers; and special moldings at walls, column penetrations, and other junctures of acoustical ceilings with adjoining construction.
 - 4. Minimum Drawing Scale: 1/8 inch = 1 foot (1:96).
- C. Samples for Verification: Full-size units of each type of ceiling assembly indicated; in sets for each color, texture, and pattern specified, showing the full range of variations expected in these characteristics.
 - 1. 6-inch- (150-mm-) square samples of each acoustical panel type, pattern, and color.
 - 2. Set of 12-inch- (300-mm-) long samples of exposed suspension system members, including moldings, for each color and system type required.
- D. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- E. Product Test Reports: Indicate compliance of acoustical panel ceilings and components with requirements based on comprehensive testing of current products.
- F. Research/Evaluation Reports: Evidence of acoustical panel ceiling's and components' compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed acoustical panel ceilings similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

- B. Source Limitations for Ceiling Units: Obtain each acoustical ceiling panel from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.
- C. Source Limitations for Suspension System: Obtain each suspension system from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.
 - 1. Obtain both acoustical ceiling panels and suspension system from the same manufacturer.
- D. Fire-Test-Response Characteristics: Provide acoustical panel ceilings that comply with the following requirements:
 - 1. Fire-response tests were performed by UL, ITS/Warnock Hersey, or another independent testing and inspecting agency that is acceptable to authorities having jurisdiction and that performs testing and follow-up services.
 - 2. Surface-burning characteristics of acoustical panels comply with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84.
 - 3. Products are identified with appropriate markings of applicable testing and inspecting agency.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.7 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents.
 - 1. Acoustical Ceiling Units: Full-size units equal to 2.0 percent of amount installed.
 - 2. Suspension System Components: Quantity of each exposed component equal to 2.0 percent of amount installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, those indicated for each designation in the Acoustical Panel Ceiling Schedule at the end of Part 3.

2.2 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
 - 1. Mounting Method for Measuring Noise Reduction Coefficient: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches (400 mm) away from test surface per ASTM E 795.
- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.
 - 1. Where appearance characteristics of acoustical panels are indicated by referencing ASTM E 1264 pattern designations and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range of products that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.
- C. Panel Characteristics: Comply with requirements indicated in the Acoustical Panel Ceiling Schedule at the end of Part 3, including those referencing ASTM E 1264 classifications.

2.3 METAL SUSPENSION SYSTEMS, GENERAL

- A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable ASTM C 635 requirements.
- B. Metal Suspension System Characteristics: Comply with requirements indicated in the Acoustical Panel Ceiling Schedule at the end of Part 3.
- C. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.
- D. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung, unless otherwise indicated.
- E. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, Direct Hung) will be less than yield stress of wire, but provide not less than 0.106-inch- (2.69-mm-) diameter wire.
- F. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

- G. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.
- H. 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.
- I. Hold-Down Clips for Non-Fire-Resistance-Rated Ceilings: For interior ceilings consisting of acoustical panels weighing less than 1 lb/sq. ft. (4.88 kg/sq. m), provide hold-down clips spaced 24 inches (610 mm) o.c. on all cross tees.
- J. Impact Clips: Typical, unless noted otherwise, provide manufacturer's standard impact-clip system designed to absorb impact forces against acoustical panels.

2.4 ACOUSTICAL SEALANT

- A. Acoustical Sealant for Exposed and Concealed Joints: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834 and the following requirements:
 - 1. Product is effective in reducing airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
- B. Acoustical Sealant for Concealed Joints: Manufacturer's standard nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior concealed joints to reduce airborne sound transmission.
- C. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Acoustical Sealant for Exposed and Concealed Joints:
 - a. PL Acoustical Sealant; Chemrex, Inc., Contech Brands.
 - b. AC-20 FTR Acoustical and Insulation Sealant; Pecora Corp.
 - c. SHEETROCK Acoustical Sealant; United States Gypsum Co.
 - 2. Acoustical Sealant for Concealed Joints:
 - a. BA-98; Pecora Corp.
 - b. Tremco Acoustical Sealant; Tremco, Inc.

2.5 MISCELLANEOUS MATERIALS

- A. Tile adhesives: Type recommended by tile manufacturer, bearing UL label for Class 0-25 flamespread.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage, and other conditions affecting performance of acoustical panel ceilings.

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

3.2 PREPARATION

- A. Coordination: Furnish layouts for cast-in-place anchors, clips, and other ceiling anchors whose installation is specified in other Sections.
 1. Furnish cast-in-place anchors and similar devices to other trades for installation well in advance of time needed for coordinating other work.
 2. Test substrates to verify moisture level is below tile manufacturer's recommended limits before installing adhesive applied tile.
- B. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with publications referenced below per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
 1. Standard for Ceiling Suspension System Installations: Comply with ASTM C 636.
 2. U.B.C.'s "Metal Suspension Systems for Acoustical Tile and for Lay-in Panel Ceilings": U.B.C. Standard 25-2.
- B. Suspend ceiling hangers from building's structural members and as follows:
 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 3. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 4. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
 5. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure; that are appropriate for substrate; and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 6. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 7. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, powder-actuated fasteners, or drilled-in anchors that extend through forms into concrete.
 8. Do not attach hangers to steel deck tabs.
 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.

10. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers, unless otherwise indicated; and provide hangers not more than 8 inches (200 mm) from ends of each member.
 11. Wire shall not be kinked and tails shall be cut.
 12. Provide separate wired to hang light fixtures.
 13. Architect to dimension cuts to border, do not balance layout.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m). Miter corners accurately and connect securely.
 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- E. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fitted accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
1. Arrange directionally patterned acoustical panels as follows:
 - a. As indicated on reflected ceiling plans.
 2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
 3. Paint cut panel edges remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
 4. Install hold-down clips in areas indicated, in areas required by authorities having jurisdiction, and for fire-resistance ratings; space as recommended by panel manufacturer's written instructions, unless otherwise indicated or required.
- G. Provide one extra box of each acoustical ceiling panels for owner.

3.5 ACOUSTICAL PANEL CEILING SCHEDULE

- A. White, Acoustical Panels for Acoustical Panel Ceiling ACT-1: Where this designation is indicated, provide [fire-resistance-rated where noted] acoustical panels, complying with the following:
1. Products: Available products include the following:
 - a. USG Interiors, Radar, 'Climaplus' Ceilings.
 2. Color: White.
 3. Light Reflectance Coefficient: Not less than 0.92

4. Noise Reduction Coefficient: NRC 0.65 -.75
5. Ceiling Attenuation Class: Not less than CAC 35 - 39.
6. Edge Detail: SLB
7. Thickness: 3/4 inch.
8. Size: 2' x 4'
9. Application: Where indicated.

10. Suspension System: Armstrong Prelude XL 15/16" exposed tee system. Edge trim to be 15/16" edge angle and to be installed with BERC2 clips.

3.5 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 09511

SECTION 09680 - CARPET

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes tufted carpet.

1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Shop Drawings: Show the following:
 - 1. Existing flooring materials to be removed.
 - 2. Existing flooring materials to remain.
 - 3. Carpet type, color, and dye lot.
 - 4. Seam locations.
 - 5. Pattern type, repeat size, location, direction, and starting point.
 - 6. Pile direction.
 - 7. Insets and borders.
 - 8. Edge, transition, and other accessory strips.
 - 9. Transition details to other flooring materials.
- C. Samples: For each color and texture required.
 - 1. Carpet: Min.- **12-inch**- square Sample.
 - 2. Exposed Edge, Transition, and other Accessory Stripping: **12-inch**- long Samples.
 - 3. Carpet Cushion: **6-inch**- square Sample.
- D. Product Schedule: For carpet. Use same designations indicated on Drawings.
- E. Maintenance data.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.
- B. Mockups: Before installing carpet, build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI 104, Section 5, "Storage and Handling."

1.5 PROJECT CONDITIONS

- A. Comply with CRI 104, Section 7.2, "Site Conditions; Temperature and Humidity" and Section 7.12, "Ventilation."

1.6 WARRANTY

- A. Special Warranty for Carpet: Manufacturer's standard form in which manufacturer agrees to repair or replace components of carpet installation that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, loss of tuft bind strength, excess static discharge, and delamination.

- 1. Warranty Period: 10 years from date of Substantial Completion.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

- 1. Carpet: Extra Carpet tiles equal to 5 percent of amount installed for each type indicated, but not less than **10 sq. yd.**

PART 2 - PRODUCTS

2.1 CARPET TILE (CPT-1)

- A. Available Products: Subject to compliance with requirements, products that must be incorporated into the Work include the following:

- B. Products: Subject to compliance with requirements, provide the following:

- 1. Interface

- a. Color: Mint
- b. Style: Urban Grid (Provide Samples to Architect)

- C. Applied Soil-Resistance Treatment: Manufacturer's standard material.

- D. Antimicrobial Treatment: Manufacturer's standard material.

- E. Available Products: Subject to compliance with requirements, products that must be incorporated into the Work include the following:
- F. Applied Soil-Resistance Treatment: Manufacturer's standard material.
- G. Antimicrobial Treatment: Manufacturer's standard material.

2.2 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet and is recommended or provided by carpet manufacturer.
 - 1. VOC Limits: Provide adhesives with VOC content not more than 50g/L when calculated according to 40 CFR 59, Subpart D (EPA method 24).
- C. Seam Adhesive: Hot-melt adhesive tape or similar product recommended by carpet manufacturer for sealing and taping seams and butting cut edges at backing to form secure seams and to prevent pile loss at seams.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with CRI 104 and carpet manufacturer's written installation instructions for the following:
 - 1. Direct-Glue-Down Installation: Comply with CRI 104, Section 9, "Direct Glue-Down Installation."
 - 2. Double-Glue-Down Installation: Comply with CRI 104, Section 10, "Double Glue-Down Installation."
 - 3. Carpet with Attached-Cushion Installation: Comply with CRI 104, Section 11, "Attached-Cushion Installations."
 - 4. Preapplied Adhesive Installation: Comply with CRI 104, Section 11.4, "Pre-Applied Adhesive Systems (Peel and Stick)."
 - 5. Hook-and-Loop Installation: Comply with CRI 104, Section 11.5, "Hook and Loop Technology."
 - 6. Stretch-in Installation: Comply with CRI 104, Section 12, "Stretch-in Installation."
- B. Comply with carpet manufacturer's written recommendations and Shop Drawings for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under the door in closed position.
- C. Extend carpet into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

D. Install pattern parallel to walls and borders.

END OF SECTION 09680

EE002 Details
ED101 Floor Plan Electrical Demolition
EL101 First Floor New Lighting Plan
EP101 First Floor New Power Plan
EY101 Floor Plan Systems

DEFERRED SUBMITTALS

FIRE SPRINKLER:

THE DEFERRED SUBMITTAL FOR THE FIRE SPRINKLER WILL BE PROVIDED BY CONTRACTOR AND WILL BE SUBMITTED TO THE FIRE MARSHAL AND BUILDING OFFICIAL AT COMMENCEMENT OF CONSTRUCTION.

FIRE ALARM:

MODIFICATIONS TO EXISTING SYSTEM ARE PER DRAWINGS. SEE SHEET EY101 FOR MODIFICATIONS. THE DEFERRED SHOP DRAWINGS WILL BE PROVIDED BY CONTRACTOR AND WILL BE SUBMITTED TO THE FIRE MARSHAL AND BUILDING OFFICIAL AT COMMENCEMENT OF CONSTRUCTION.



ES

Vicinity I

REF SHEET: GI001

**METHOD
STUDIO** INC.

**UVU Bookstore
Remodel**

Addenda #1
project#:09.0330
date: september 28, 2009
sheet SDA1.01

Building Data:

Remodel Area:

Remodel Area = 9,731 sq. ft.

Construction Type : Type II Non-rated

Occupancy: Business

(Educational occupancies for students above the 12th grade)

Copy Center - Occupant load	5
Bookstore - Occupant load	93
total	98

Fire Protection:

Building is fire sprinklered

Applicable Codes:

All construction shall comply with the following codes:

- 2006 International Building Code (IBC)
- 2006 International Plumbing Code (IPC)
- 2006 International Mechanical Code (IMC)
- 2006 International Fire Code (IFC)
- 2008 National Electrical Code (NEC)
- 2006 International Energy Conservation Code (IECC)
- National Fire Protection Association Codes (in total)
- ASHRAE 90-1-89 and subsequent addenda
- IAQ guidelines for occupied buildings under construction (SMACNA)
- Americans with Disabilities Act (ADA)
- 2006 Life Safety Code

REF SHEET: GI002

CODE ANALYSIS

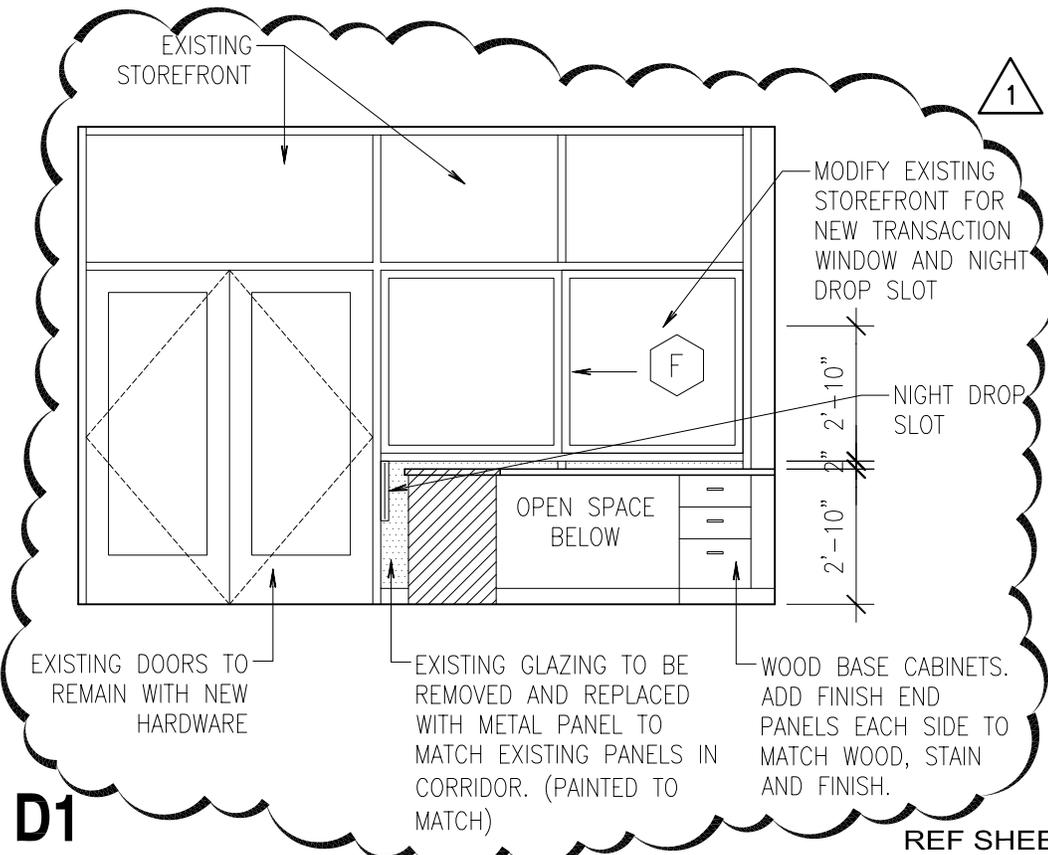
APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006	Uniform Code for	
International Fuel Gas Code	2006	Building Conservation	1997
International Plumbing Code	2006	ADA Accessibility	
International Fire Code	2006	Guidelines	2003
International Energy Conservation Code	2006		

A. Occupancy and Group: **GROUP B - Business (Educational occupancies for students above the 12th grade)**

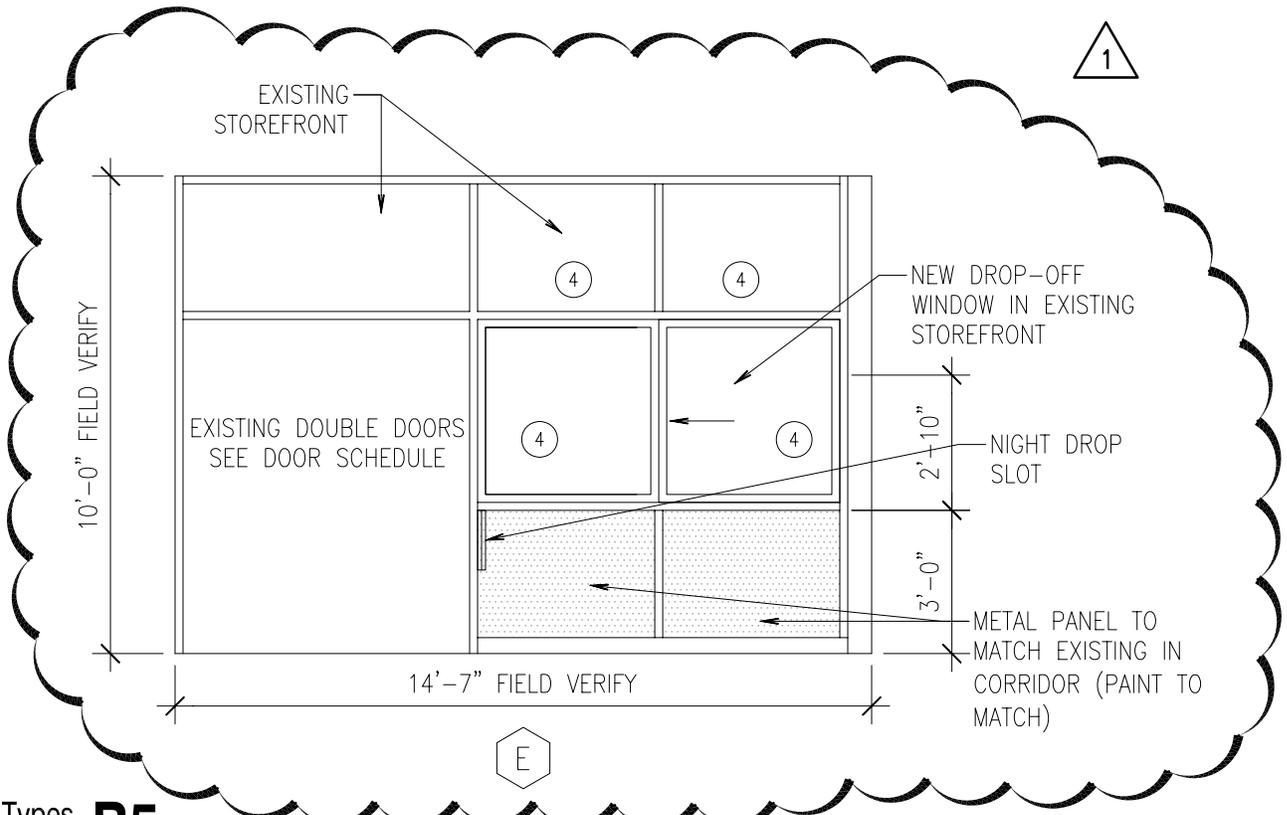
Change in Use: Yes _____ No Mixed Occupancy: Yes No _____
 Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

REF SHEET: GI002



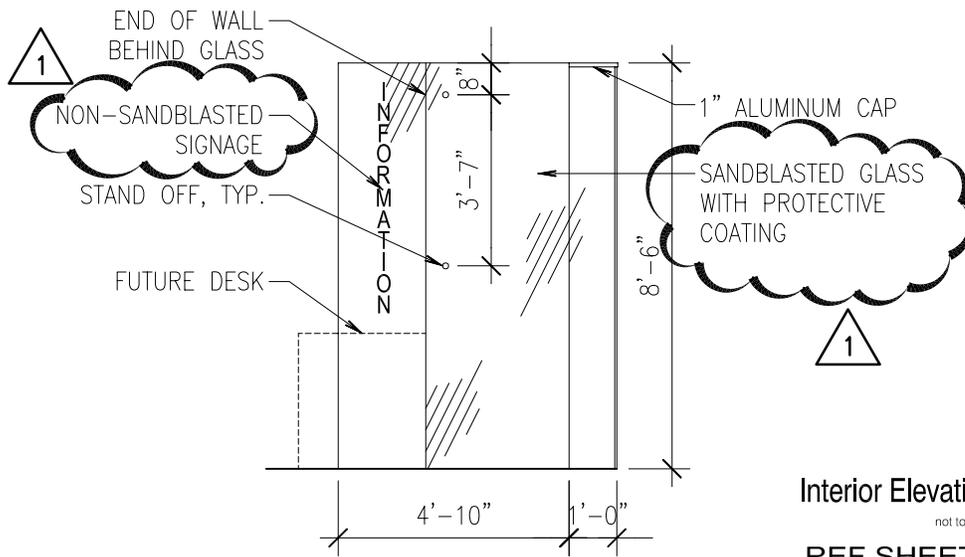
Interior Elevation **D1**
not to scale

REF SHEET: AE210

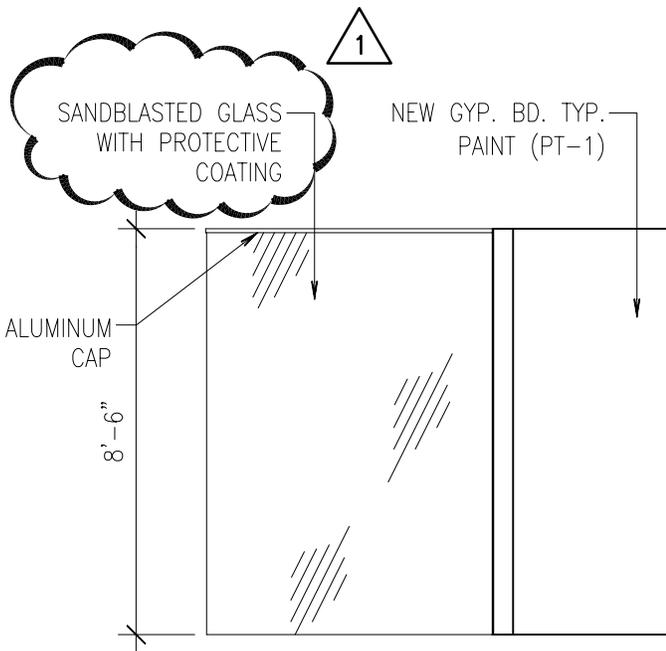


Window Types **B5**
not to scale

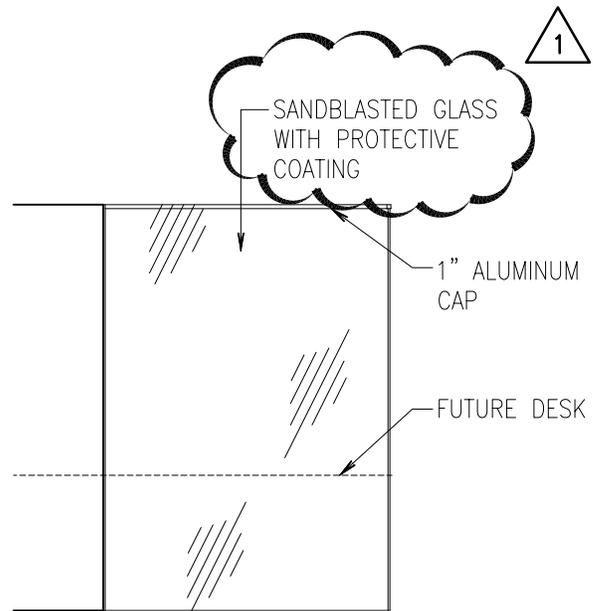
REF SHEET: AE601



Interior Elevation **B5**
not to scale
 REF SHEET: AE211



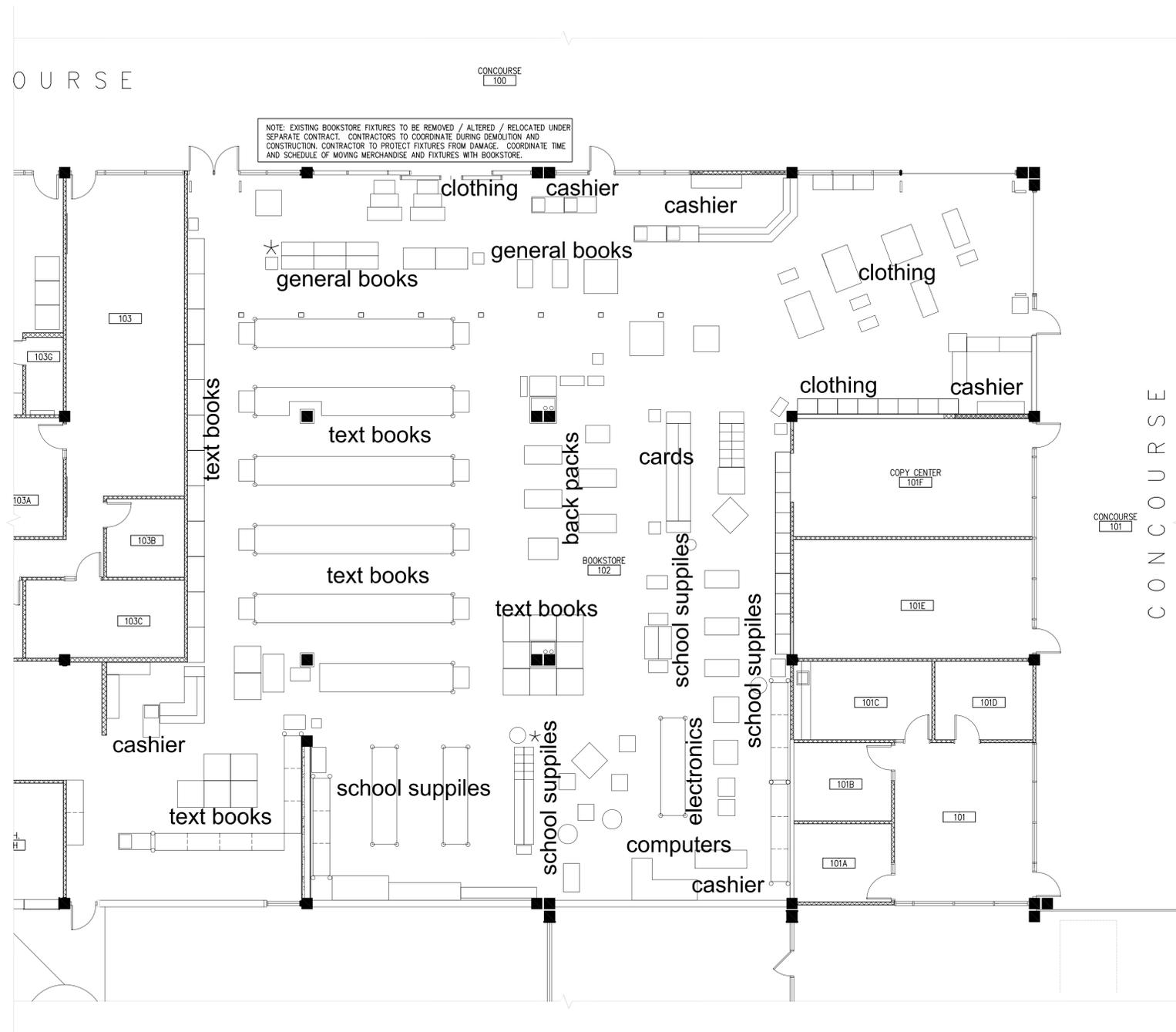
Interior Elevation **D3**
not to scale
 REF SHEET: AE210



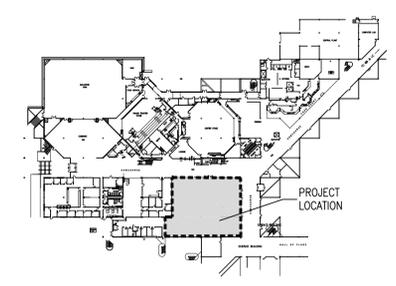
Interior Elevation **C3**
not to scale
 REF SHEET: AE210

General Notes:

1. GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE AND AFTER DEMOLITION.
2. CONTRACTOR TO ENSURE THAT ALL CORRIDORS OUTSIDE OF CONSTRUCTION AREA ARE KEPT CLEAN AND CLEAR OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES.
3. PROTECT ALL ITEMS TO REMAIN FROM DAMAGE.



EXISTING INTERIOR FURNISHINGS PLAN **A4**
1/8" = 1'-0"



KEY PLAN **A5**

**METHOD
STUDIO INC.**

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phone: (801) 532-4422
fax: (801) 328-4187



UVU
Sorensen Center
Bookstore Remodel

Orem Campus
800 W. University Parkway
Orem, Utah 84058

project#: 09.0330
date: august 31, 2009

revisions:
ADDENDUM #1 SEPTEMBER 28, 2009

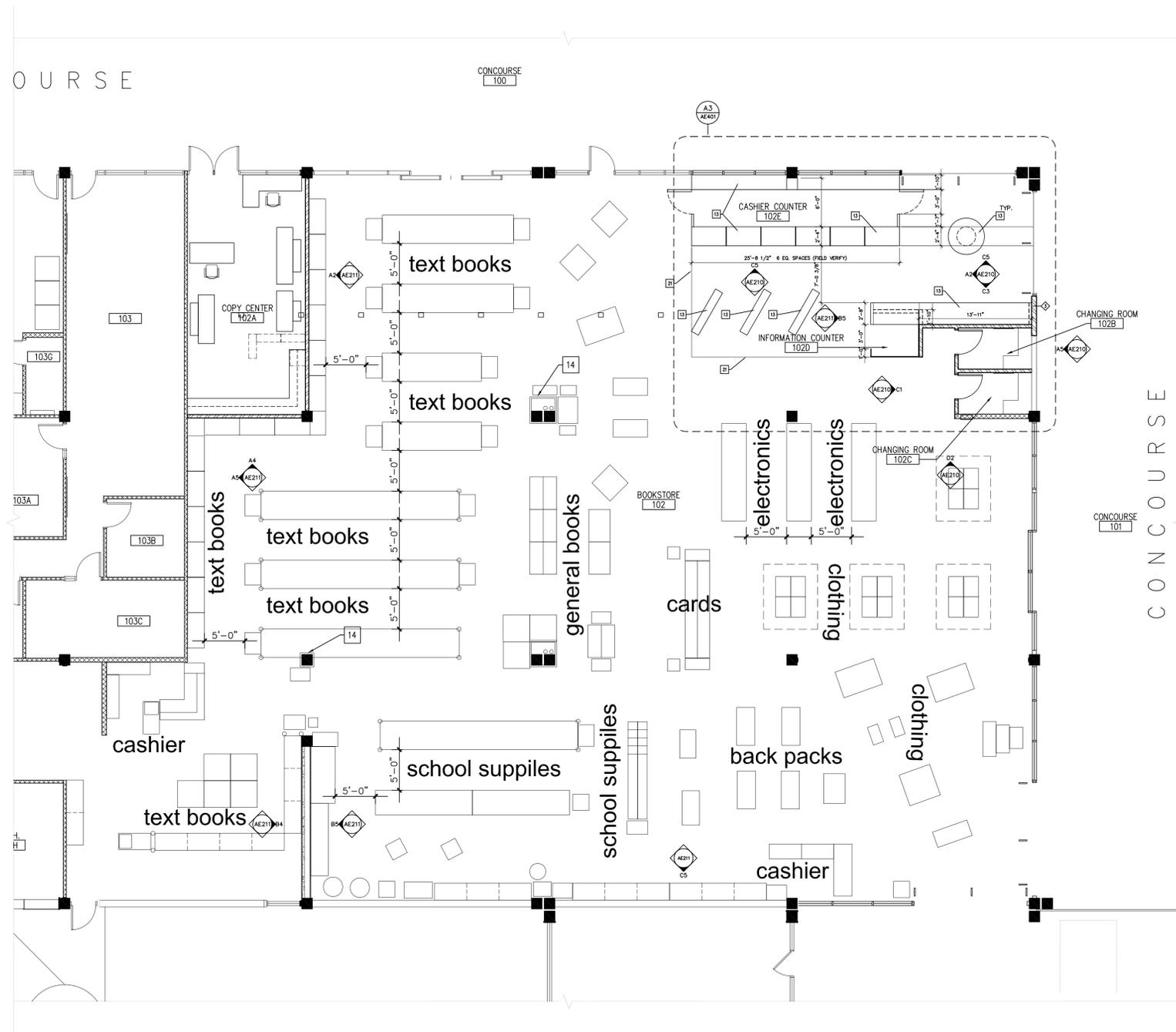
existing
interior
finishes plan

IF101

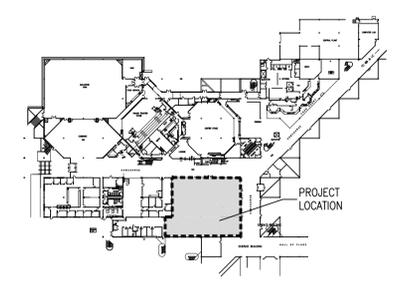
100% Construction Documents

General Notes:

1. GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE AND AFTER DEMOLITION.
2. CONTRACTOR TO ENSURE THAT ALL CORRIDORS OUTSIDE OF CONSTRUCTION AREA ARE KEPT CLEAN AND CLEAR OF DEBRIS AND OBSTRUCTIONS AT ALL TIMES.
3. PROTECT ALL ITEMS TO REMAIN FROM DAMAGE.



NEW INTERIOR FURNISHINGS PLAN **A4**
1/8" = 1'-0"



KEY PLAN A5

METHOD STUDIO INC.

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salt lake city, utah 84111
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fax: (801) 328-4187



UVU Sorensen Center Bookstore
Remodel

Orem Campus
800 W. University Parkway
Orem, Utah 84058

project#: 09.0330
date: august 31, 2009

revisions:
ADDENDUM #1 SEPTEMBER 28, 2009

new interior finishes plan

sheet number
IF101b

100% Construction Documents

ADDENDUM

Project Name: UVU Bookstore Remodel

Addendum No.: 1

WHW Project # 09028

Date: September 22, 2009

From: WHW Engineering Inc
8619 Sandy Parkway Suite 101
Sandy, Utah 84070
Phone (801) 466-4021 Fax (801) 466-8536

To: All Bidders

This Addendum forms and becomes a part of the Contract Documents and modifies the original Bidding Documents dated 08/31/09 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.

This Addendum consists of 3 pages.

I - CHANGES TO PRIOR ADDENDA: N/A

II - CHANGES TO BIDDING REQUIREMENTS: N/A

III - CHANGES/CLARIFICATIONS TO SPECIFICATIONS: N/A

IV - CHANGES/CLARIFICATIONS TO DRAWINGS:

Item IV-1. -Changed round exhaust duct to rectangular for clearance and specified cfm for exhaust. See attached sketch AD1-ME101

Item IV-2. -Added details C and D on sheet ME601 to address seismic restraint requirements. Modified detail B to conform to seismic restraint requirements. See attached sketch AD1-ME601.

PRIOR APPROVALS

THE FOLLOWING ITEMS, AS SUBMITTED, ARE CONSIDERED, IN GENERAL AND IN NAME ONLY, AS EQUAL TO THOSE ITEMS SPECIFIED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OR SUPPLIER OF THE RESPONSIBILITY OF CONFORMING TO THE DRAWINGS AND SPECIFICATIONS, NOR DOES IT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS FOR COORDINATION WITH OTHER TRADES. ALL DIMENSIONS SHALL BE CONFIRMED AND CORRELATED AT THE JOBSITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND THE SUITABILITY OF "EQUAL" PRODUCTS FOR THE SPECIFIED APPLICATION.

Description

Manufacturer

15950-Test and Balance

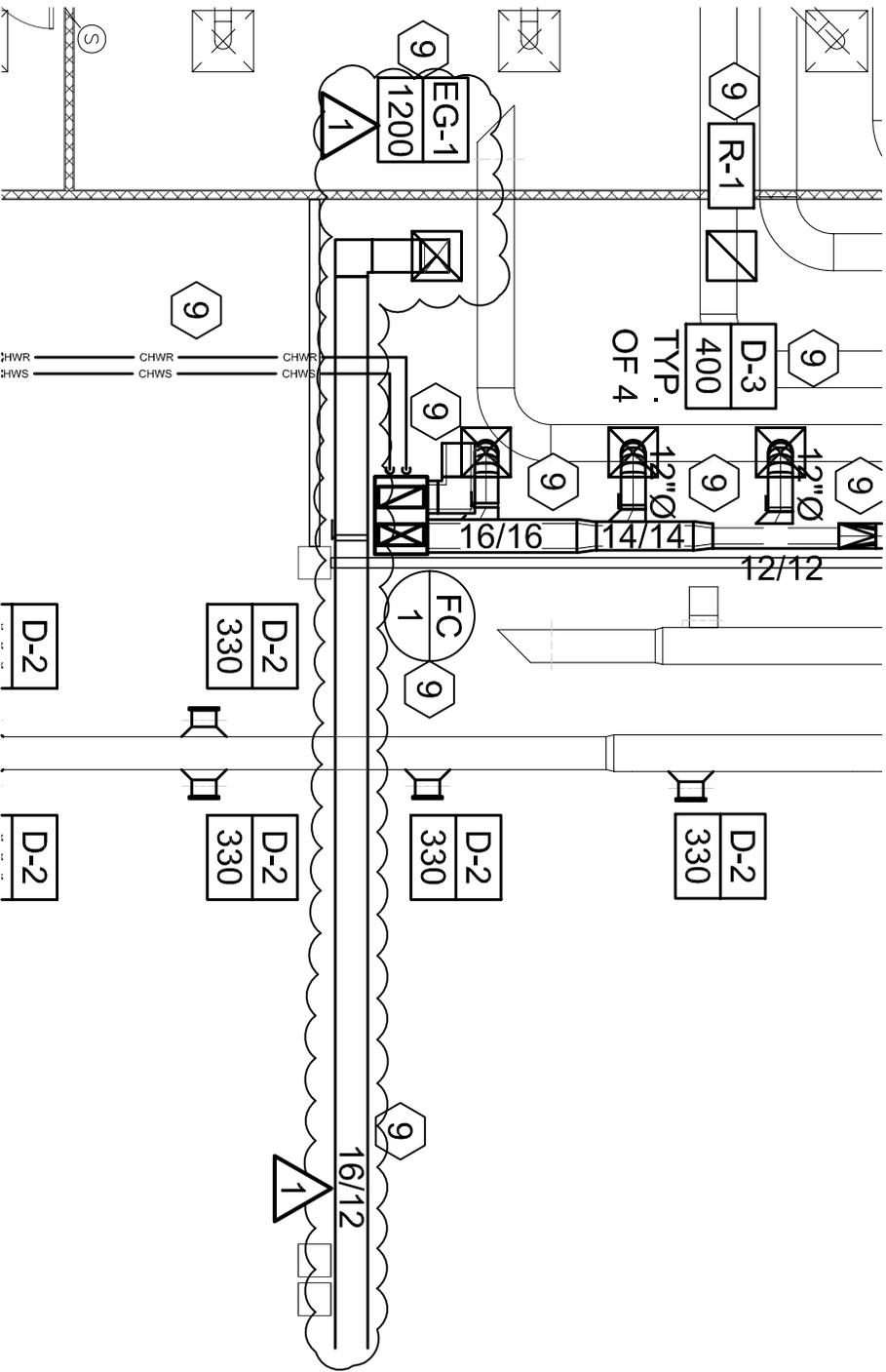
Independent Test & Balance

**METHOD
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**WHW
ENGINEERING INC.**
PROFESSIONAL MECHANICAL ENGINEERING
8819 Sandy Parkway, Suite 101
SANDY, UTAH 84070
(801) 466-1021, FAX 466-6536
EMAIL: excellence@mw-engineering.com



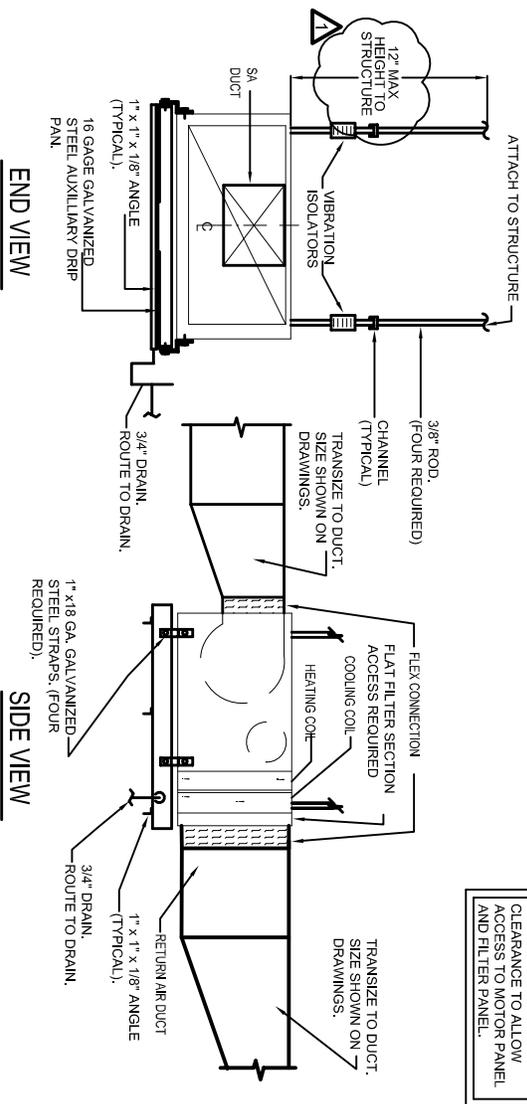
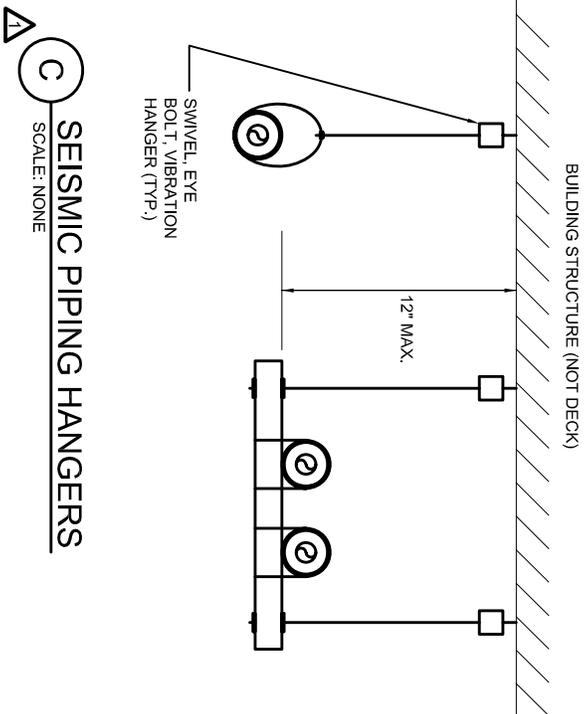
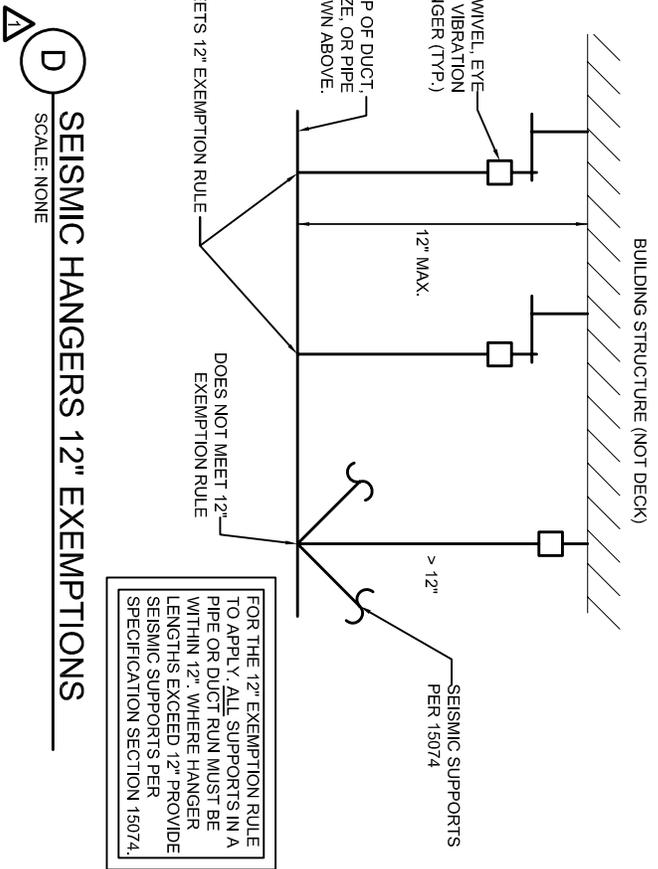
**UVU
Sorensen Center
Bookstore**
Remodel

Orem Campus
800 W. University Parkway
Orem, Utah 84058

Project#: 09.0330
date: august 31, 2009

Revisions:
A ADDENDUM 1

sheet number
AD1-ME101



METHOD STUDIO INC.

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WHW ENGINEERING INC.
PROFESSIONAL MECHANICAL ENGINEERING
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(801) 968-4021, FAX 468-6336
EMAIL: exc@whw-engineering.com

UTAH VALLEY UNIVERSITY

UVU

Sorensen Center
Bookstore

Remodel

Orem Campus
800 W. University Parkway
Orem, Utah 84058

Project#: 09_0330
date: august 31, 2009

REVISIONS:
ADDENDUM 1

Sheet number
AD1-ME601

ELECTRICAL ADDENDUM #1

The following items added to the contract documents.

Sheet EP101:

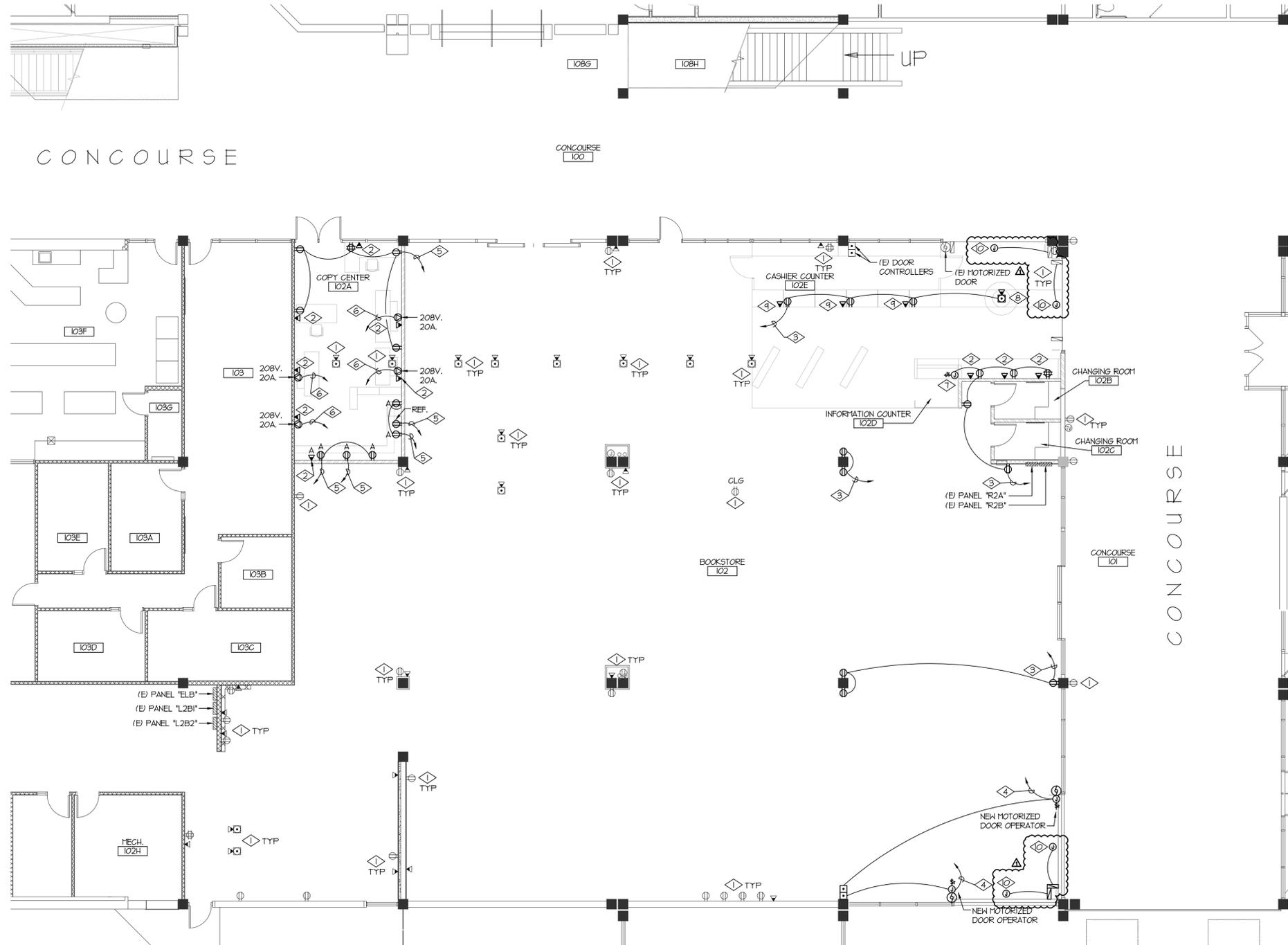
1. Add a flush floor outlet between the two merchandise security pedestals at each overhead door. Refer to the attached ESD for more information.
2. Tie the fan coil unit FC-1 to an available 120V 20A spare circuit breaker in panel "L2B-2." Provide a thermal overload switch as means to disconnect the unit. Provide all conduits, conductors, J-boxes, etc. Necessary for a complete functioning installation. Refer to mechanical drawings for exact unit location. Coordinate with installer for connection requirements.

Sheet ED101:

1. Devices indicated to remain on walls being removed, shall be removed, stored and reinstalled on new walls at the same location. The circuit integrity for the device shall be maintained. Protect devices against damage. Devices damaged during construction shall be replaced at contractor's expense with new devices of the same make and model.

Yours very truly,

Guillermo Oviedo-Vela
Guillermo Oviedo-Vela
ECE, Inc.



- REFERENCE NOTES:**
1. EXISTING DEVICES SHALL REMAIN. MAKE ANY MODIFICATIONS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
 2. FURNISH AND INSTALL A 4"x4"x2-1/8" DEEP J-BOX FOR FUTURE VOICE/DATA OUTLET IN THE APPROXIMATE LOCATION SHOWN. RUN 1" CONDUIT TO THE NEAREST EXISTING CABLE TRAY IN THE CORRIDOR. INSERT A PULL STRING AND LABEL. PROVIDE A PLASTIC BUSHING AT CABLE TRAY END.
 3. TIE THE NEW OUTLETS TO A SPARE 20A, 1-POLE CIRCUIT BREAKER MADE AVAILABLE DURING DEMOLITION IN EXISTING PANEL "R2A" OR "R2B".
 4. TIE THE NEW MOTORIZED DOOR OPERATOR TO A SPARE 20A, 1-POLE CIRCUIT BREAKER IN EXISTING PANEL "L2B-2".
 5. TIE THE NEW OUTLETS TO A SPARE 20A, 1-POLE CIRCUIT BREAKER IN EXISTING PANEL "L2B-2".
 6. TIE TO A NEW 20A, 2-POLE CIRCUIT BREAKER INSTALLED IN THE EXISTING PANEL "L2B2". NEW CIRCUIT BREAKER SHALL BE SAME TYPE AND AIC RATING AS EXISTING. VERIFY PROPER NEMA TYPE OUTLET WITH THE OWNER PRIOR TO ORDERING.
 7. TIE THE SHOW-CASE LIGHTING FURNISHED WITH THE EQUIPMENT TO THE INDICATED CIRCUIT. COORDINATE WITH THE MILLWORK INSTALLER FOR CONDUIT ROUTING AND CONNECTION REQUIREMENTS.
 8. FURNISH AND INSTALL A FLUSH FLOOR OUTLET BOX AT THE APPROXIMATE LOCATION SHOWN. REFER TO THE FLOOR OUTLET DETAIL FOR MORE INFORMATION. PROVIDE ALL SAW CUT, BACKFILL, RESURFACING, CONDUIT, CONDUCTORS, J-BOXES, ETC. NECESSARY FOR A COMPLETE, FUNCTIONING INSTALLATION. SCAN THE FLOOR PRIOR TO SAW CUT.
 9. RUN POWER TO THE OUTLETS UNDER THE FLOOR SLAB UP THE CLOSEST WALL. TIE TO THE INDICATED CIRCUIT. COORDINATE THE INSTALLATION OF THE OUTLETS WITH THE MILLWORK INSTALLER. PROVIDE ALL SAW CUTTING, BACKFILL AND RESURFACING. RUN A 3/4" CONDUIT WITH PULL STRING FROM THE DATA J-BOX TO ACCESSIBLE CEILING.
 10. FURNISH AND INSTALL A 4"x4"x2-1/8" DEEP FLUSH FLOOR OUTLET WITH DOUBLE GANG HURDING AND COVER PLATE AT THE APPROXIMATE LOCATION SHOWN FOR MERCHANDISE SECURITY SYSTEM. COORDINATE THE EXACT LOCATION WITH THE SYSTEM INSTALLER PRIOR TO ROUGH IN. RUN A 3/4" CONDUIT FROM THE J-BOX TO THE INDICATED FEDESTAL. INSERT PULL STRING. PROVIDE ALL CONCRETE CUTTING, BACK FILL AND RE-SURFACING, CONDUIT, ETC., NECESSARY FOR A COMPLETE INSTALLATION.

- SPECIAL NOTES:**
1. NEW CONDUITS SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE AND ROUTED AT THE CEILING DECK. COORDINATE ROUTES WITH OTHER TRADES.
 2. COORDINATE LOCATION AND ELEVATION OF ALL DEVICES WITH ARCHITECT PRIOR TO ROUGH IN.

METHOD STUDIO INC.

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E.C.E. INC.
 Electrical Consulting
 Engineers
 939 so. west temple
 salt lake city, utah 84111
 phone: (801) 521-8007
 fax: (801) 521-8057



UVU Sorenson Center Bookstore
 Remodel

Orem Campus
 800 W. University Parkway
 Orem, Utah 84058

project #: 3868
 date: august 10, 2009

revisions:
 ADD #1 SEPT. 25 2009

sheet name
floor plan power

sheet number
EP101

design development documents

FLOOR PLAN - POWER
 SCALE: 1/8" = 1'-0"