PROJECT MANUAL

Poudre School District

PRESTON MIDDLE SCHOOL

ADMINISTRATION OFFICE REMODEL

JUNE 4, 2020

POUDRE SCHOOL DISTRICT™

Owner:
Poudre School District
2407 LaPorte Avenue
Fort Collins,
Colorado 80521

Architect:
KALERT | Consulting Group, LLC
2429 Stonecrest Drive
Fort Collins, CO 80521

BLANK PAGE

SECTION 017329 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes procedural requirements for cutting and patching.

1.2 SUBMITTALS

A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed. Include the following information:
   1. Dates: Indicate when cutting and patching will be performed.
   2. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
   3. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.

B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety

E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
4. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 017329

SECTION 024119 - SELECTIVE DEMOLITION AND REMOVALS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Removal of selected site and building elements.
   2. Salvage of existing items to be reused or recycled, as indicated on the drawings, and including but not limited to:
      a. Removal and salvage of existing casework (return to Owner).
      b. Removal and salvage of existing doors and hardware (Re-Install)
      c. ACP Ceiling Systems including Grid and Panels
      d. Ceiling-mounted electrical devices.
      e. Reconfigure existing Hollow Metal Window Frames (In-Place)

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

E. Demolish: Remove.

1.3 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.4 INFORMATIONAL SUBMITTALS

A. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

B. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.

C. Predemolition Photographs or Video: Submit before Work begins.

1.5 COORDINATION

A. Coordinate removals and new construction of architectural, structural, mechanical, plumbing and electrical systems prior to initiating construction. Establish a schedule for removals, noting duration between service interruptions and new systems being operational.

1.6 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Storage or sale of removed items or materials on-site is not permitted.

D. Building Services: Maintain all existing building systems and services, except those specifically identified for removal. Where required, protect building systems and services against damage during selective demolition operations.

1.7 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties. Notify warrantor before proceeding.

B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 PEFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.

C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs and preconstruction video recordings.
   1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
   2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
   1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
   2. Arrange to shut off indicated utilities with utility companies.
   3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
   4. Disconnect, demolish, and remove plumbing, and HVAC systems, equipment, and components indicated to be removed.
      a. Equipment to Be Removed: Disconnect and cap services and remove equipment.
      b. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
      c. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
      d. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
   1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
   1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
   2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
   3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
   4. Cover and protect furniture, furnishings, and equipment that have not been removed.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
   1. At the General Contractor's discretion, General Contractor to furnish professional engineering design services required for shoring and bracing design and implementation required during Selective Demolition activity.
   2. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
   1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
   2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
   3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
   5. Maintain adequate ventilation when using cutting torches.
   6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

B. Removed and Salvaged Items:
1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area off-site designated by Owner.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

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

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

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

3.6 CLEANING

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

END OF SECTION 024119

SECTION 064113

ARCHITECTURAL CASEWORK

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:
1. Fabricated architectural cabinets with scribes, strips, filler panels, base support system and special exposed wood details required for a complete installation.
2. Countertops including plastic laminate,
3. Wood furring, blocking, shims, and hanging strips for installing architectural cabinets unless concealed within other construction before cabinet installation.
4. Cabinet hardware and accessories.
5. Preparation for installing utilities.

1.3 ACTION SUBMITTALS

A. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
1. Show details full size.
2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
3. Show locations and sizes of cutouts and holes for electrical switches and outlets and other items installed in architectural plastic-laminate cabinets.

B. Samples for Initial Selection:
1. Plastic laminates.
2. PVC edge material.
3. Thermoset decorative panels.

C. Samples for Verification:
1. Plastic laminates, 8 by 10 inches (200 by 250 mm), for each type, color, pattern, and surface finish, with one sample applied to core material and specified edge material applied to one edge.
2. Wood-grain plastic laminates, 12 by 24 inches (300 by 600 mm), for each type, pattern and surface finish, with one sample applied to core material and specified edge material applied to one edge.

1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

B. Structural Integrity: Casework and countertop manufacturer shall be responsible for the structural integrity of components and finished casework units, designing, constructing and installing casework and countertops to their own standards, but in no case less than the following:
1. Shelves, including wall cabinet tops and bottom shelves, shall be designed to support 20 lbs. per lineal foot, except where heavier loads are indicated, with no apparent deflection.

2. Countertops shall be designed to safely support loads of 200 lbs. concentrated on one square foot in any area with no apparent deflection.
3. The maximum span for 3/4 inch shelf material shall be 2 feet 6 inches. The maximum span for 1-1/4 inch shelf materials shall be 3 feet. Vertical divider supports shall be required where spans would otherwise exceed these limits.
4. Provide appropriate anchorage into substrate to carry design loads. Coordinate locations of blocking required with General Contractor.

C. Do not install damaged casework. Repair or replace to Architect's and Owner's satisfaction prior to installation.

D. Do not deliver cabinets until painting and similar operations that could damage woodwork have been completed in installation areas. If cabinets must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.5 FIELD CONDITIONS

A. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed, and indicate measurements on Shop Drawings.

B. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.6 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that cabinets can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL CASEWORK FABRICATORS

A. Fabricators: Subject to compliance with requirements, provide products by Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

B. Grade: Unless otherwise indicated provide products of quality specified by AWI Architectural Woodwork Standards for Custom grade:
1. Plastic Laminate Faced Cabinets: Custom grade.

C. Regional Materials: Cabinets shall be manufactured within 500 miles (800 km) of Project site.

D. Type of Construction: Frameless.

E. Cabinet, Door, and Drawer Front Interface Style: Flush overlay.

F. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by woodwork quality standard.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. Formica Corporation.
b. Panolam Industries International, Inc.
c. Wilsonart International; Div. of Premark International, Inc.

G. Laminate Cladding for Exposed Surfaces:

1. Horizontal Surfaces: Grade HGS.
2. Vertical Surfaces: Grade HGS.
3. Edges: PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish.
4. Pattern Direction: Vertically for drawer fronts, doors, and fixed panels.
5. Colors: PLAM-1 = To be selected by Architect from manufacturer's full range of color and texture

H. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.
1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners or glued dovetail joints.

I. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
1. As selected by Architect from laminate manufacturer's full range in the following categories:
a. Solid colors, matte finish.
b. Wood grains, matte finish.
c. Patterns, matte finish.

2.2 COUNTERTOPS

A. Plastic Laminate: Medium density fiberboard substrate covered with HPDL.
1. Conventionally fabricated, PVC edge banded.

2.3 WOOD MATERIALS

A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
1. Wood Moisture Content: 5 to 10 percent.

B. Exposed Surfaces: PS 1; APA A-A Grade, species face veneer, plain-sliced, interior rated adhesives, core of particleboard, medium density fiberboard, or engineered combination, thickness as indicated.

C. Composite Wood and Agrifiber Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
1. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde.
2. a. Minimum screw holding capacity: Faces = 225 lbs.; Edges = 200 lbs.
3. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for test methods 3.3, 3.4, 3.6, 3.8, and 3.10.

2.4 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets.

B. Hardware:
1. Hinges: Blum "Clip Top" concealed hinges.
2. Pulls: 1/4 inch stainless steel wire pulls.
3. Drawer Slides: Minimum 100 lb. load bearing. Full extension type at all drawers with built-in file folder supports.
4. Catches: Magnetic.

5. Shelf Supports: KV #34NP, for 1/4 inch holes and associated hardware for a complete assembly that holds shelves on supports.
6. Standards and Brackets: KV #87 and #187.
7. Grommets: Doug Mockett EDP Series.

2.5 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

C. Adhesives: Do not use adhesives that contain urea formaldehyde.

D. Adhesives: Use adhesives that meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.6 FABRICATION - GENERAL

A. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
1. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
2. Cap exposed plastic laminate finish edges with material of same finish and pattern.

2.7 FABRICATION OF PLASTIC LAMINATE CABINETS

A. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.

B. Fabricate cabinets to dimensions, profiles, and details indicated.

C. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

D. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.

E. Cabinet Bodies:
1. Sub Base:
   a. Provide cabinets supported on floor with a separate continuous wood sub base which supports cabinets.
   b. Sub base shall consist of 3/4 inch thick exterior grade unfinished fir plywood. Option: Adjustable support legs and 1/4 inch hardboard backing closure for rubber base.
   c. At exposed ends of cabinets, hold plywood sub base back 1/8 inch from face of cabinet, creating a 1/8 inch deep recess to receive 1/8 inch thick vinyl base.
2. Construction:
   a. Core material for plastic laminate tops, bottoms and sides shall be minimum 3/4 inch thick particle fiberboard. Moisture resistant in countertops with sinks.
   b. Plastic laminate exterior and thermofused polyester/melamine interior surfaces behind doors.
   c. High density plastic laminate exterior and interior surfaces of open cabinets.

d. Exposed Edges: Self edge with 1 mm PVC in color to match exterior surface. Scribes shall match.

3. Cabinet Backs:
   a. Cabinets shall have backs which are routed into top, bottom and sides of cabinet.
   b. Backs shall be no less than 3/8 inch thick particleboard prefinished to match interior of cabinet.
   c. Manufacturer has option to provide a solid 3/4 inch thick back which is secured to top, bottom and sides of cabinet with glue, dowels and screws in lieu of routing back into cabinet construction.
   d. Finish shall match adjacent laminate finishes.
4. Door and Drawer Fronts:
   a. Core material for plastic laminate door and drawer fronts shall be minimum 3/4 inch thick particleboard.
   b. Core material for plastic laminate door and drawer fronts shall be minimum 3/4 inch thick plywood.
   c. High density plastic laminate exterior and thermofused polyester/melamine exposed interior face for plastic laminate cabinets.
   d. Edgebound with 3 mm PVC in color to match exterior surface.
   e. If directional patterned or grained laminate is scheduled, direction of pattern or grain shall be uniform on drawer fronts, door fronts and cabinet bodies. Failure to achieve uniform direction shall be cause for rejection of casework.
5. Drawer Construction:
   a. Drawer fronts to be applied to drawer sub-front.
   b. Drawer bodies for plastic laminate cabinets shall be solid hardwood, laminate covered plywood or polyester laminated fiberboard.
   c. Dadoe drawer glides to receive front and back; glue and pin.
   d. Drawer bottoms for plastic laminate cabinets shall be no less than 1/4 inch veneered plywood, [hardboard], housed and glued, into front, sides and back.
   e. Reinforce drawer bottoms with intermediate spreaders.
   f. Provide bumpers to prevent drawer faces from taking shock of closing.
6. Shelving:
   a. Shelves behind doors of plastic laminate cabinets shall be thermofused polyester/melamine laminated particleboard two sides.
   b. Open shelving of plastic laminate cabinets shall be particleboard laminated with high density plastic laminate both sides.
   c. Leading exposed edge of shelves of plastic laminate cabinets behind doors shall be edged with 1 mm PVC, in color to match shelves.
   d. Edges of open shelving of plastic laminate cabinets shall be edged with high density plastic laminate, in color to match plastic laminate on face of shelves.
   e. Shelving core thickness of plastic laminate cabinets shall meet design load requirements of Part 1.
7. Cabinet Finish:
   a. Exposed Exterior Surfaces of Cabinets: Cover external exposed surfaces, except counter tops, with GP-28 high density plastic laminate. Surfaces shall include the underside of wall cabinets, top of cabinets which are 7 feet or lower from floor, and both faces and back of open shelving.
   b. Semi-Exposed Interior Surfaces of Cabinets: Cover internal semi-exposed surfaces, drawer interiors, and shelving behind doors, with thermofused polyester/melamine laminate particleboard. Backs of doors, interior sides, and backs of cabinets shall be GP-28 high density plastic laminate.

c. Unexposed Surfaces: Cover areas unexposed to view before cabinet work is installed, including concealed cabinet backs, bases and wall ends, with a backing sheet to provide balanced construction and ensure against warpage and delamination.

8. Access Panels:

a. Provide access panels in backs of casework where required for access to Mechanical and Electrical work. Access panels shall be minimum 1 foot x 1 foot and hinged. Provide access panels at cleanouts, valves, junction boxes and other mechanical and electrical components. Verify field conditions.

2.8 FABRICATION OF PLASTIC LAMINATE COUNTERTOPS

A. Core: 1-1/4 inch thick particleboard, moisture resistant in countertops with sinks.

B. Edge: Edges of countertops shall be self-edged with 3mm PVC, in colors selected by Architect.

C. Cutouts: Provide cutouts in counter tops for built-in fixtures, sinks and equipment.

D. Backsplash: Provide plastic laminate counter tops with a 4 inch high backsplash, unless noted otherwise. Provide an endsplash at ends of cabinet counter tops where a counter top abuts a vertical surface, including at wall or adjacent tall cabinets. Backsplash and endsplash joints shall be neat, tight, inconspicuous and sealed with clear silicone sealant.

E. Finish: Cover counter tops with GP-50 plastic laminate. Adhere plastic laminate to core by hot-press method. Provide a balancing backer sheet on underside of counter tops.

PART 3 - EXECUTION

3.1 PREPARATION

A. Verify adequacy of backing and support framing.

B. Verify location and sizes of utility rough-in associated with work of this section. Coordinate installation with mechanical and electrical contractors who will be furnishing and installing plumbing and electrical work. Do not cover electrical outlets, devices, etc.

3.2 INSTALLATION

A. Grade: Install cabinets to comply with same grade as item to be installed.

B. Assemble cabinets and complete fabrication at Project site to the extent that it was not completed in the shop.

C. Install cabinets level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).

D. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

E. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork.

1. Use filler matching finish of items being installed.

F. Use appropriate attachments into CMU, blocking or studs at concealed locations for wall mounted components to support design loads.

G. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.

H. Cut casework to fit adjoining casework and refinish cut surfaces or repair damaged finish at cuts. Use filler strips for this purpose. Top and bottom filler pieces required for all scribes.

I. Countersink all exposed joint fasteners. Conceal fastener heads with plastic covers matching adjacent finished cabinet material.

J. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

K. Secure countertop support frames with appropriate anchors for substrate. Locate accurately as shown on Drawings. Secure countertops to frames with concealed fasteners. At free standing locations, mount shear panels to frames to complete rigid installation.

L. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
   1. Install cabinets with no more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line.
   2. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches (400 mm) o.c. with toggle bolts through metal backing or metal framing behind wall finish.

3.3 PROTECTION, ADJUSTING AND CLEANING

A. The casework Installer shall advise the Contractor of final protection and maintained conditions necessary to ensure that the work will be without damage or deterioration at the time of acceptance.

B. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.

C. Clean, lubricate, and adjust hardware.

D. Clean casework, counters, shelves, hardware, fittings and fixtures on exposed and semiexposed surfaces.

END OF SECTION 064116

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Silicone joint sealants.
   2. Latex joint sealants.

1.2 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

2.2 LATEX JOINT SEALANTS

A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. BASF Building Systems; Sonolac.
      b. Bostik, Inc.; Chem-Calk 600.
      c. Pecora Corporation; AC-20+.
      d. Tremco Incorporated; Tremflex 834.
   2. Joint Locations:
      a. Perimeter joints between interior wall surfaces and frames of interior doors and windows.
      b. Perimeter of laminate counter tops to wall joints.

2.3 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
   1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
   2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.

B. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

3.4 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 083310 - OVERHEAD COILING COUNTER SHUTTERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Electrically operated overhead coiling doors, operators, controls and accessories.

B. ACCEPTABLE MANUFACTURER: Rolling counter shutters shall be DuraShutter SELECT as manufactured by Raynor of Dixon, Illinois.

C. OPERATION

1. Operation Type: Rolling counter shutters shall be operated by (select from list below):
   a. Tube Motor: as optionally-provided by means of a Raynor Eclipse ™ tube motor type electric operator. Tube motor shall be concealed inside the barrel assembly and bracket cover.

D. MOUNTING:

1. Face-Mount: as normally-provided and fastened to the face of the wall opening.

E. CURTAIN

A. Material: The curtain shall consist of interlocking slats formed from (select from list below):
   1. Aluminum: slats shall be extruded from .050 minimum thickness aluminum.
B. Bottom Bar and Seal: Bottom bar shall be tubular type, with ¼" (6.3 mm) thick protective strip to cushion impact of bottom bar on counter top. Bottom bar material and finish shall match the shutter curtain.

F. GUIDES

A. Guide Assemblies: Guide shall be provided in the same material and finish as the shutter curtain, and be fitted with removable curtain stop.
B. Jamb Construction: Rolling counter shutter shall be mounted to:
   1. Steel Jambs: as normally-provided, and supplied with self-tapping fastener.
C. Wear Strips: Rolling counter shutter shall be furnished with wool pile wear strips inside the guides to discourage the curtain from premature wear and noise.

G. COUNTERBALANCE SYSTEM

A. Headplates: Mounting brackets shall be made from 10 gauge galvanized steel plate and attached to the wall and guide.
B. Barrel: The barrel shall be made from a minimum 4 ½" (114.3 mm) O.D. x .120" (3.1 mm) wall structural steel pipe. Deflection of pipe under full load shall not exceed .03" (.8 mm) per foot of span.
C. Counterbalance:
   1. The curtain shall be counterbalanced by means oil-tempered, helical torsion springs, grease packed and mounted on a continuous steel torsion shaft.

H. ENCLOSURES
A. Hood: Rolling counter shutter shall be furnished with a square hood enclosure comprised of:
1. Aluminum Hood: as normally-provided with aluminum curtains, comprised of .04 (1.02 mm) thick aluminum and finished to match the curtain.
B. Headplate Cover: Rolling counter shutter shall be furnished with an enclosure for the headplates, in the same material and finish as the shutter curtain.

2.1 INSTALLATION

A. General: Install door, guide and operating equipment complete with all necessary accessories and hardware according to shop drawings, manufacturer's instructions.

3.1 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: At Owner's request, provide manufacturer's field service consisting of product installation and use recommendations, and periodic site visits to observe and ensure product installation is done in accordance with manufacturer's recommendations.

1. Site Visits: TWO

4.1 ADJUSTING

A. General: Lubricate bearings and sliding parts, and adjust doors for proper operation, balance, clearance and similar requirements.

5.1 CLEANING

A. Remove temporary coverings and protection of adjacent work areas. Repair or replace installed products damaged prior to or during installation.

B. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove and legally dispose of construction debris from project site.

END OF SECTION 083310

SECTION 088000 - GLAZING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:

1. Interior Glazing
2. Interior Doors and Sidelights

B. Related Requirements:

1. Section 084113 Aluminum Framed Entrances and Storefronts.

1.2 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.

1.3 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

1.4 ACTION SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.

B. Glass Samples: For each type of glass product; 12 inches (300 mm) square.

1. Tempered glass.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

B. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of the SGCC, other certification agency acceptable to authorities having jurisdiction, or the manufacturer. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

PART 2 - PRODUCTS

2.1 GLASS PRODUCTS, GENERAL

A. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.
   1. Glass Thickness: Not less than 1/4 inch.

B. Strength: Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass.

2.2 TEMPERED INTERIOR GLAZING - Glass Type 1

A. Safety Glazing (SG): Conforming to ANSI Z97.1 with minimum thickness of ¼ inch.
   1. Fully tempered: ASTM C1048, Kind FT Fully Tempered, Condition A, uncoated, Type 1 transparent flat, Class 1 clear, Quality q3 glazing select.
   2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Cardinal.
      b. PPG
      c. Oldecastle
      d. TruLite

2.3 WINDOW INFILL PANELS - LAMINATED

A. Laminated MDF Panels with a thermally fused paper/resin coating to provide a durable hard surface finish on both sides.

B. Finish:

Corridor Side: White Melamine

Office Side: White Melamine

D. Panel Fabrication

Substrates: High density MDF
Finish: Thermally fused paper/resin coating

E. Panel Thickness – 1 inch

2.4 GLAZING STOPS

A. Interior Glazing Stops: Material to match glazing framing system.
   1. Re-Use exiting

2.5 GLAZING SEALANTS

A. General:
   1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
   2. Colors of Exposed Glazing Sealants: Clear.

B. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

C. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

D. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

E. Spacers: Elastomeric blocks or continuous extrusions of hardness recommended by glass manufacturer to maintain glass lites in place for installation indicated.

F. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

2.6 SLIDING TRANSACTION WINDOW HARDWARE

A. Satin anodized XO Frameless Pass Thru Window Hardware and Glazing

B. CR Laurence or EQUAL

1. Glazing: Type 1
2. Integral Push Button Lock
3. Rubber Bumpers

PART 3 - EXECUTION

A. Maintain 1/8 inch clearance between glass face and metal stops.

B. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

3.2 CLEANING AND PROTECTION

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.

D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

END OF SECTION 088000

SECTION 092216 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Non-load-bearing steel framing systems for interior gypsum board assemblies.

B. Related Requirements:
   1. Section 092900 "Gypsum Board" for interior gypsum board assemblies.

1.2 QUALITY ASSURANCE

A. Perform work in accordance with AISI – Cold-Formed Steel Design Manual.

B. Qualifications: Erector must possess a minimum of 3 years experience in erection of cold-formed metal framing for projects of similar size and complexity.

C. Tolerances:
   1. General: Variation of not more than 1/8 inch from plane of adjacent framing.
   2. Walls and vertical surfaces: Variation from plumb not more than 1/8 inch in 8 feet.
   3. Ceilings: Variation from level not more than 1/8 inch in 12 feet.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide products by one of the following manufacturers:
   1. Cemco, Inc.
   2. Dale/Incor, Inc.
   3. Dietrich Industries, Inc.

2.2 FRAMING SYSTEMS

A. Studs and Runners: ASTM C 645 and GA-216
   1. Steel Studs and Runners: Galvanized sheet steel, C-Shaped, with knurled faces, and finished in accordance with ASTM A123 G60 coating class.
      a. Studs Minimum Base-Metal Thickness: 25 gauge studs in field and 20 gauge studs around openings and at corners**.**
      b. Runners: 25 gauge.
      c. Depth: As indicated on Drawings.

B. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in thickness and finish to match studs, and length and width indicated and as required by equipment supported.

2.3 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.
   1. Fasteners: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.
   2. Screws: Hot dip galvanized, self-drilling, and self-tapping.
   3. Primer: Touch-up for galvanized surfaces: SSPC – Paint 20.

B. Isolation Strip at Masonry Walls: Provide one of the following:
   1. Asphalt-Saturated Organic Felt: ASTM D 226, Type I (No. 15 asphalt felt), nonperforated.
   2. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8 inch (3.2 mm) thick, in width to suit steel stud size.

PART 3 - EXECUTION

3.1 EXAMINATION

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

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

3.2 INSTALLATION, GENERAL

A. Installation Standard: ASTM C 754.
   1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

C. Install bracing at terminations in assemblies.

3.3 INSTALLATION OF WALL FRAMING

A. Install framing system components not greater than spacings required by referenced installation standards for assembly types, and not greater than 16 inches o.c.

B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

D. Install by aligning floor and ceiling tracks. Continue framing around ducts penetrating partitions above ceiling. Unless noted otherwise, provide 25 gauge studs in field and two 20 gauge studs on both side of door openings.
   1. Install floor tracks in continuous bed of sealant.
   2. Align holes in studs to facilitate installation of conduit and piping.
   3. At intersections, place studs not more than 2 inches from abutting walls. Construct corners using a minimum of two 20 gauge studs in each partition.
   4. Each stud shall be one-piece full-length from the floor tack to the ceiling track.
   5. Provide cross studs as blocking for fixtures and equipment anchored to the wall, and for attachment of mechanical and electrical items located within the walls. Coordinate location and type of blocking with other trades.
   6. Provide bridging in accordance with manufacturer recommendations.
   7. At partitions that terminate above the ceiling, provide additional bracing from the top of the partition to the structure at 4 foot o.c. max.
   8. Provide compressible filler behind studs at intersections with masonry walls.

E. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by faces of adjacent framing.

END OF SECTION 092216

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Interior gypsum board.

B. Related Requirements:
   1. Section 092216 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support gypsum board panels.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

A. Size: 4 feet wide X maximum length available.

B. All gypsum board products and accessories shall be formaldehyde-free and asbestos-free.

C. Use post-industrial and post-consumer recycled gypsum board products with the highest level of recycled content readily available.

2.2 INTERIOR GYPSUM BOARD

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Georgia-Pacific Gypsum LLC.
   2. National Gypsum Company.
   3. USG Corporation.

B. Standard Gypsum Wallboard, complying with ASTM C 1396/C 1396M – Type GYP-1
   1. Thickness: 5/8 inch.
   2. Long Edges: Tapered.

2.3 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.
   1. Material: Galvanized steel.
   2. Shapes:
      a. Cornerbead.
      b. L-Bead: L-shaped; exposed long flange receives joint compound.
      c. U-Bead: J-shaped; exposed short flange does not receive joint compound.
      d. Specialty shapes, as required.

3. Products:
   a. Dur-a-Bead products by USG Corporation, or equivalent by:
      1) Georgia Pacific
      2) National Gypsum

2.4 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M and GA 216

B. Joint Tape:
   1. Interior Gypsum Board: Paper.
   2. Products:
      a. Sheetrock joint tape by USG Corporation, or equivalent by:
         1) Georgia Pacific
         2) National Gypsum

C. Joint Compound for Interior Gypsum Board.
   1. Pre-mixed compounds shall be free of antifreeze, vinyl adhesives, preservatives, biocides and other slow-releasing compounds.
   2. Products:
      a. Sheetrock brand joint compound by USG corporation, or equivalent by:
         1) Georgia Pacific
         2) National Gypsum

2.5 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

B. Steel Drill Screws: ASTM C 1002 and GA-216.
   1. Type S12 hardened screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch (0.84 to 2.84 mm) thick.

PART 3 - EXECUTION

3.1 APPLYING AND FINISHING PANELS, GENERAL

A. Comply with ASTM C 840 and GA-216.

B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.

D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

E. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
   1. Fit gypsum panels around ducts, pipes, and conduits.
   2. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.

F. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first. Provide fasteners spaced per 2003 International Building Code requirements.

G. Tolerances: Maximum acceptable variation from flat surface is 1/16 inch per foot and 1/8 inch in 10 feet.

3.2 APPLYING INTERIOR GYPSUM BOARD

A. Install interior gypsum board in locations, as indicated.

B. Single-Layer Application:
   1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
   2. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing) unless otherwise indicated, and minimize end joints.
      a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
   3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.
   4. Seal holes and cut edges in moisture-resistant gypsum board with sealant.

C. Interior Trim: Install in the following locations:

   1. Cornerbead: Use at outside corners, unless otherwise indicated.
   2. L-Bead and specialty shapes: Where partition meets dissimilar materials, and where indicated.

3.3 FINISHING GYPSUM BOARD

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

B. Prefill open joints and damaged surface areas.

C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
   1. Level 4: At panel surfaces that will receive additional finish material layers.
      a. Tape, fill and sand joints, edges and corners to produce smooth surface ready to receive finish.
      b. Feather coats onto adjoining surfaces so camber is 1/32 inch maximum.
      c. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."
   2. Texture: Light Orange Peel to match existing adjacent surfaces.

3.4 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

END OF SECTION 092900

SECTION 095113 - ACOUSTICAL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for ceilings where existing ACP systems require repair.

PART 2 - PRODUCTS

2.1 ACOUSTICAL PANELS

A. Manufacturer: Subject to compliance with requirements, provide the following products:
   1. **ACP-1**: USG Radar, 24 inches x 48 inches, white, square edge.

2.2 METAL SUSPENSION SYSTEM

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. USG Interiors, Inc.; Subsidiary of USG Corporation.

PART 3 - EXECUTION

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

3.2 PREPARATION

A. 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 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 095113

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Resilient base.
   2. Resilient molding accessories.

PART 2 - PRODUCTS

2.1 RUBBER BASE

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Burke Industries Inc.
   2. Johnsonite
   3. Flexco.
   4. R.C. Musson Rubber Company
   5. Roppe Corporation, USA.

B. Top-set coved rubber base:
   1. Thickness: 0.125 inch (3.2 mm).
   2. Height: 4-1/2” inches.

C. Lengths: Cut lengths 48 inches (1219 mm) long.

D. Outside Corners: Job formed.

E. Inside Corners: Job formed.

F. Colors: Matte finish black.

2.2 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.
   1. Products: Webcrete95, or approved equal.

B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 RESILIENT BASE INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient base.

B. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.

C. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.

D. Do not stretch resilient base during installation.

E. Job-Formed Corners:
   1. Outside Corners: Use straight pieces and form with returns not less than 24 inches in length.
      a. Form without producing discoloration (whitening) at bends.
   2. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 24 inches in length.
      a. Miter corners to minimize open joints.

END OF SECTION 096513

SECTION 096816 - SHEET CARPET TIE-INS AND PATCHING

GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Repair and patching of direct glued broadloom carpet

B. Related Requirements:
   1. Section 024119 "Selective Demolition" for removing existing floor coverings.
   2. Section 096513 "Resilient Base and Accessories" for resilient wall base and accessories installed with carpet.

PART 2 - PRODUCTS

2.1 BROADLOOM CARPET

A. Products: Carpet for floor patch will be provided by the Owner.
   1. TANDUS CENTIVA
      a. Style - Crayon
      b. Color - ‘Precious Metal’

2.2 INSTALLATION ACCESSORIES

A. 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.

PART 3 - EXECUTION

3.1 EXAMINATION

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

PREPARATION

B. General: Comply with CRI 104, Section 7.3, "Site Conditions; Floor Preparation," and with carpet manufacturer's written installation instructions for preparing substrates.

C. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch (3 mm) wide or wider, and protrusions more than 1/32 inch (0.8 mm), unless more stringent requirements are required by manufacturer's written instructions.

D. Broom and vacuum clean substrates to be covered immediately before installing carpet.

3.2 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."

3.3 CLEANING AND PROTECTING

A. Perform the following operations immediately after installing carpet:
   1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer.
   2. Remove yarns that protrude from carpet surface.
   3. Vacuum carpet using commercial machine with face-beater element.

B. Protect installed carpet to comply with CRI 104, Section 16, "Protecting Indoor Installations."

C. Protect carpet against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet manufacturer.

END OF SECTION 096816

SECTION 099113 – PAINTING

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 surface preparation and the application of paint systems on exterior and interior substrates. Finish all interior and exterior surfaces exposed to view, unless fully factory finished or indicated in this Section not to be finished. Schedule of Exterior and Interior Surface Painting Systems to be provided is located at the end of Part 3 Execution.

B. Workmanship shall be first class throughout or work will be subject to rejection and refinishing at no additional cost to Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Diamond Vogel Paints.
   2. ICI Paints.
   3. Kwal Paint.
   4. PPG Architectural Finishes, Inc.
   5. Sherwin-Williams Company

2.2 PAINT, GENERAL

A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."

B. Material Compatibility:
   1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
   2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

C. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction[and, for interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24)].
   1. Flat Paints and Coatings: 50 g/L.
   2. Primers, Sealers, and Undercoaters: 200 g/L.

D. Colors: match Diamond Vogel – Aspen White.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Proceed with coating application only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
   1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
   1. Use applicators and techniques suited for paint and substrate indicated.
   2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
   3. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

B. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

C. Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
   1. Paint all mechanical and electrical equipment except that which is factory finished or aluminum, exposed to weather or to view on the roof .
   2. Do Not Paint or Finish the Following Items:
      a. Items fully factory-finished unless specifically noted; factory-primed items are not considered factory-finished.
      b. Items indicated to receive other finish.
      c. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
      d. Polished and brushed stainless steel items.
      e. Acoustical materials.
      f. Concealed piping, ductwork, and conduit.

D. Paint entire wall where patching is to be painted and nearest horizontal break line, or ceiling, if none is existing.

3.4 INTERIOR PAINTING SCHEDULE

a. D-V: DS 1541Hide Plus Semi.

B. Gypsum Board: Spot prime taped and spackled areas with primer before texturing.

1. Primer: White, interior, latex-based primer, total dry film thickness not less than 1.2 mils.
   a. D-V: DU-1507.
2. First and Second Coats: Interior satin latex enamel, total dry film thickness not less than 2.8 mils.
   a. D-V: DC-1541 Hide Plus.

END OF SECTION 099113