

SEAL:



2.07 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. CLEANERS FOR NON-POROUS SURFACES: CHEMICAL CLEANERS ACCEPTABLE TO MANUFACTURERS OF SEALANTS AND SEALANT BACKING MATERIALS, FREE OF OILY RESIDUES OR OTHER SUBSTANCES CAPABLE OF STAINING OR HARMING JOINT SUBSTRATES AND ADJACENT NONPOROUS SURFACES IN ANY WAY, AND FORMULATED TO PROMOTE OPTIMUM ADHESION OF SEALANTS TO JOINT SUBSTRATES.
- C. MASKING TAPE: NON-STAINING, NON-ABSORBENT MATERIAL COMPATIBLE WITH JOINT SEALANTS AND SURFACES ADJACENT TO JOINTS.

PART 3 EXECUTION

- A. SURFACE CLEANING OF JOINTS: CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS.
 - REMOVE ALL FOREIGN MATERIAL FROM JOINT SUBSTRATES THAT COULD INTERFERE WITH ADHESION OF JOINT SEALANT.
 - CLEAN POROUS JOINT SUBSTRATE SURFACES BY BRUSHING, GRINDING, BLAST CLEANING, 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.
- WALL FLASHING INSTALLATION
 - GENERAL: INSTALL SHEET METAL WALL FLASHING TO INTERCEPT AND EXCLUDE PENETRATING MOISTURE ACCORDING TO SMACNA RECOMMENDATIONS AND AS INDICATED. COORDINATE INSTALLATION OF WALL FLASHING WITH INSTALLATION OF WALL-OPENING COMPONENTS SUCH AS WINDOWS, DOORS AND LOUVERS.
 - OPENING FLASHINGS IN FRAME CONSTRUCTION: INSTALL CONTINUOUS HEAD, SILL, JAMB, AND SIMILAR FLASHINGS TO EXTEND 4 INCHES BEYOND WALL OPENINGS.
- CLEANING AND PROTECTION
 - CLEAN EXPOSED METAL SURFACES OF SUBSTANCES THAT INTERFERE WITH UNIFORM OXIDATION AND WEATHERING.
 - CLEAN AND NEUTRALIZE FLUX MATERIALS. CLEAN OFF EXCESS SOLDER AND SEALANTS.
 - REMOVE TEMPORARY PROTECTIVE COVERINGS AND STRIPPABLE FILMS AS SHEET METAL FLASHING AND TRIM ARE INSTALLED UNLESS OTHERWISE INDICATED IN MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
 - REMOVE LAITANCE AND FORM-RELEASE AGENTS FROM CONCRETE.
 - CLEAN NONPOROUS SURFACES WITH CHEMICAL CLEANERS OR OTHER MEANS THAT DO NOT STAIN, HARM SUBSTRATES, OR LEAVE RESIDUES CAPABLE OF INTERFERING WITH ADHESION OF JOINT SEALANTS.
 - JOINT PRIMING: PRIME JOINT SUBSTRATES, WHERE RECOMMENDED IN WRITING BY JOINT-SEALANT MANUFACTURER, BASED ON PRECONSTRUCTION JOINT-SEALANT-SUBSTRATE TESTS OR PRIOR EXPERIENCE. APPLY PRIMER TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS. CONFINED PRIMERS TO AREAS OF JOINT-SEALANT BOND, DO NOT ALLOW SPILLAGE OR MIGRATION ONTO ADJOINING SURFACES.
 - MASKING TAPE: USE MASKING TAPE WHERE REQUIRED TO PREVENT CONTACT OR SEALANT WITH ADJOINING SURFACES THAT OTHERWISE SHOULD 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.

3.02 INSTALLATION

- A. SEALANT INSTALLATION STANDARD: COMPLY WITH RECOMMENDATIONS IN ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE TO MATERIALS, APPLICATIONS, AND CONDITIONS INDICATED.
- B. INSTALL SEALANT BACKINGS OF TYPE INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.
 - DO NOT LEAVE GAPS BETWEEN ENDS OF SEALANT BACKINGS.
 - DO NOT STRETCH, TWIST, PUNCTURE, OR TEAR SEALANT BACKINGS.
 - REMOVE ABSORBENT SEALANT BACKINGS THAT HAVE BECOME WET BEFORE SEALANT APPLICATION AND REPLACE THEM WITH DRY MATERIALS.
- C. INSTALL BOND-BREAKER TAPE BEHIND SEALANTS WHERE SEALANT BACKINGS ARE NOT USED BETWEEN SEALANTS AND BACKS OF JOINTS.
- D. INSTALL SEALANTS USING TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKINGS ARE INSTALLED.
 - PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.
 - COMPLETELY FILL RECESSES IN EACH JOINT CONFIGURATION.
 - PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.
- E. TOOLING OF NON-SAW SEALANTS: IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS ACCORDING TO REQUIREMENTS SPECIFIED BELOW TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED, TO ELIMINATE AIR POCKETS, AND TO ENSURE CONTACT AND ADHESION OF SEALANT WITH SIDES OF JOINT.
 - REMOVE EXCESS SEALANT FROM SURFACES ADJACENT TO JOINTS.
 - USE TOOLING AGENTS THAT AREA APPROVED IN WRITING BY SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.
 - PROVIDE CONCAVE JOINT CONFIGURATION PER FIGURE 5A IN ASTM C 1193, UNLESS OTHERWISE INDICATED.
 - 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.

SECTION 081433

STILE AND RAIL, WOOD DOORS AND FRAMES

PART 1 GENERAL

- 1.01 SECTION REQUIREMENTS
 - A. SUBMITTALS: PRODUCT DATA, INCLUDING DETAILS OF CONSTRUCTION OF DOORS.
- 2.01 PRODUCTS
 - A. EXTERIOR DOORS AND SIDELIGHTS: CUSTOM DOORS COMPLYING WITH WDMA I.S.6A, "INDUSTRY STANDARD FOR ARCHITECTURAL STILE AND RAIL DOORS," CUSTOM GRADE ASSEMBLED WITH WET-USE ADHESIVES AND MADE FROM SPECIES, DIMENSIONS AND DETAILS INDICATED ON THE DRAWINGS WITH RAISED PANELS.
 - B. INTERIOR DOORS: STOCK DOORS COMPLYING WITH WDMA I.S.6A, "INDUSTRY STANDARD FOR ARCHITECTURAL STILE AND RAIL DOORS," CUSTOM GRADE MADE FROM SPECIES INDICATED ON DRAWINGS WITH RAISED PANELS 1 1/2" THICK, SIX PANEL, DOOR WITH MINIMUM 10" BOTTOM RAIL.
 - MANUFACTURERS: SIMPSON DOOR COMPANY #66; MARSHFIELD DOOR SYSTEMS #R6010 OR EQUAL.
 - C. INTERIOR FIRE-RATED DOORS: FIRE-RATED (20-MINUTE RATING) DOORS COMPLYING WITH WDMA I.S.6A, "INDUSTRY STANDARD FOR ARCHITECTURAL STILE AND RAIL DOORS," CUSTOM GRADE MADE SPECIES INDICATED ON DRAWINGS WITH 1-3/4-INCH-(45-MM-) THICK STILES AND RAILS AND 1-1/8-INCH-(29-MM-) THICK RAISED PANEL.

2.02 FIREHUNG INTERIOR DOOR FRAMES

- FABRICATE FRAME FROM NOMINAL 1/2" SOLID WOOD OF SPECIES INDICATED ON DRAWINGS
- FABRICATION AND FINISHING
 - A. FACTORY FIT DOORS TO SUITE FRAME OPENING SIZES AND TO COMPLY WITH REFERENCED QUALITY STANDARD.
 - PROVIDE 1/8-INCH (3.2-MM) CLEARANCE AT JAMBS, HEADS, AND MEETING STILES AND 1/4 INCH (12.7 MM) AT BOTTOM. AT THRESHOLDS, PROVIDE 3/8-INCH (9.5-MM) CLEARANCE.
 - B. FACTORY MACHINE DOORS FOR HARDWARE THAT IS NOT SURFACE APPLIED.
 - C. FACTORY TREAT EXTERIOR DOORS AFTER FABRICATION WITH WATER REPELLENT TO COMPLY WITH WDMA I.S.4.

PART 3 EXECUTION

- A. INSTALLATION
 - INSTALL WOOD DOOR FRAMES LEVEL, PLUMB, TRUE, AND ALIGNED WITH ADJACENT MATERIALS. COUNTERSINK FASTENERS, FILL SURFACE FLUSH, AND SAND SMOOTH.
 - ALIGN AND FIT DOORS IN FRAMES WITH UNIFORM CLEARANCES AND BEVELS INDICATED BELOW. MACHINE DOORS FOR HARDWARE. SEAL CUT SURFACES AFTER FITTING AND MACHINING.
 - PROVIDE 1/8-INCH (3.2-MM) CLEARANCE AT JAMBS, HEADS, AND MEETING STILES AND 1/8 INCH (3.2-MM) AT BOTTOM. AT THRESHOLDS, PROVIDE 1/4-INCH (6.4-MM) CLEARANCE FROM BOTTOM OF DOOR.
 - C. ALIGN FACTORY-FITTED DOORS IN FRAMES FOR UNIFORM CLEARANCES.
 - D. REPAIR, FINISH, OR REPLACE FACTORY-FINISHED DOORS DAMAGED DURING INSTALLATION AS DIRECTED BY ARCHITECT.
- END OF SECTION 081433
- 3.02 INSTALLATION
 - INSTALL DOORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFIED QUALITY STANDARD.
 - TRIM NON-RATED DOOR WIDTH BY CUTTING EQUALLY ON BOTH JAMB EDGES.
 - TRIM DOOR HEIGHT BY CUTTING BOTTOM EDGES TO A MAXIMUM OF 3/4 INCH (19 MM).
 - USE MACHINE TOOLS TO CUT OR DRILL FOR HARDWARE.
 - COORDINATE INSTALLATION OF DOORS WITH INSTALLATION OF FRAMES AND HARDWARE.
 - COORDINATE INSTALLATION OF GLAZING.
 - INSTALL DOOR LOUVERS PLUMB AND LEVEL.
- 3.03 INSTALLATION TOLERANCES
 - CONFORM TO SPECIFIED QUALITY STANDARD FOR FIT AND CLEARANCE TOLERANCES.
 - CONFORM TO SPECIFIED QUALITY STANDARD FOR MAXIMUM DIAGONAL DISTORTION.
- 3.04 ADJUSTING
 - ADJUST DOORS FOR SMOOTH AND BALANCED DOOR MOVEMENT.
 - ADJUST CLOSERS FOR FULL CLOSURE.
- 3.05 SCHEDULE - SEE DRAWINGS
- END OF SECTION 08211

SECTION 08410

METAL-FRAMED STOREFRONTS

PART 1 GENERAL

- 1.01 SECTION INCLUDES
 - ALUMINUM-FRAMED STOREFRONT, WITH VISION GLASS.
 - WEATHERSTRIPPING.
 - PERIMETER SEALANT.
- 1.02 RELATED SECTIONS
 - A. SECTION 07900 - JOINT SEALERS: PERIMETER SEALANT AND BACK-UP MATERIALS.
 - B. SECTION 08800 - GLAZING: GLASS AND GLAZING ACCESSORIES.
- 1.03 REFERENCES
 - A. AA DAF-45 - DESIGNATION SYSTEM FOR ALUMINUM FINISHES, THE ALUMINUM ASSOCIATION, INC., 2003.
 - B. AAMA CW-10 - CARE AND HANDLING OF ARCHITECTURAL ALUMINUM FROM SHOP TO SITE, AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION, 1997.
 - C. AAMA 611 - VOLUNTARY SPECIFICATION FOR ANODIZED ARCHITECTURAL ALUMINUM, AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION, 1998.
 - D. ASTM B 221 - STANDARD SPECIFICATION FOR ALUMINUM AND ALUMINUM-ALLOY EXTRUDED BARS, RODS, WIRE, PROFILES, AND TUBES, 2002.
 - E. ASTM B 221M - STANDARD SPECIFICATION FOR ALUMINUM AND ALUMINUM-ALLOY EXTRUDED BARS, RODS, WIRE, PROFILES, AND TUBES (METRIC), 2002.
- 1.04 SUBMITTALS
 - A. SEE SECTION 01300 - ADMINISTRATIVE REQUIREMENTS, FOR SUBMITTAL PROCEDURES.
 - B. PRODUCT DATA: PROVIDE COMPONENT DIMENSIONS, DESCRIBE COMPONENTS WITHIN ASSEMBLY, ANCHORAGE AND FASTENERS, GLASS AND INFILL, DOOR HARDWARE, INTERNAL DRAINAGE DETAILS.
 - C. SHOP DRAWINGS: INDICATE SYSTEM DIMENSIONS, FRAMED OPENING REQUIREMENTS AND TOLERANCES, AFFECTED RELATED WORK, EXPANSION AND CONTRACTION JOINT LOCATION AND DETAILS, AND FIELD WELDING REQUIRED.
 - D. WARRANTY: SUBMIT MANUFACTURER WARRANTY AND ENSURE FORMS HAVE BEEN COMPLETED BY DEVELOPERS DIVERSIFIED'S NAME AND REGISTERED WITH MANUFACTURER.
- 1.05 DELIVERY, STORAGE, AND PROTECTION
 - A. HANDLE PRODUCTS OF THIS SECTION IN ACCORDANCE WITH AAMA CW-10.
 - B. PROTECT FINISHED ALUMINUM SURFACES WITH WRAPPING. DO NOT USE ADHESIVE PAPERS OR SPRAYED COATINGS WHICH BOND TO ALUMINUM WHEN EXPOSED TO SUNLIGHT OR WEATHER.
- 1.06 PROJECT CONDITIONS
 - A. COORDINATE THE WORK WITH INSTALLATION OF FIRESTOPPING COMPONENTS OR MATERIALS.
- 1.07 WARRANTY
 - A. SEE SECTION 01780 - CLOSEOUT SUBMITTALS, FOR ADDITIONAL WARRANTY REQUIREMENTS.
 - B. PROVIDE FIVE YEAR MANUFACTURER WARRANTY AGAINST FAILURE OF GLASS SEAL ON INSULATING GLASS UNITS, INCLUDING INTERPANE DUSTING OR MISTING. INCLUDE PROVISION FOR REPLACEMENT OF FAILED UNITS.
 - C. PROVIDE FIVE YEAR MANUFACTURER WARRANTY AGAINST EXCESSIVE DEGRADATION OF EXTERIOR FINISH. INCLUDE PROVISION FOR REPLACEMENT OF UNITS WITH EXCESSIVE FADING, CHALKING, OR FLAKING.

SECTION 08710

DOOR HARDWARE

PART 1 GENERAL

- 1.01 SUMMARY
 - A. THIS SECTION INCLUDES THE FOLLOWING:
 - COMMERCIAL DOOR HARDWARE.
 - CYLINDERS FOR DOORS SPECIFIED IN OTHER SECTIONS.
- 1.03 COORDINATION
 - A. TEMPLATES: DISTRIBUTE DOOR HARDWARE TEMPLATES FOR DOORS, FRAMES, AND OTHER WORK SPECIFIED TO BE FACTORY PREPARED FOR INSTALLING DOOR HARDWARE.
- 1.04 WARRANTY
 - A. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF DOOR HARDWARE THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.
- 2.01 PRODUCTS
 - A. SCHEDULED DOOR HARDWARE
 - GENERAL: PROVIDE DOOR HARDWARE FOR EACH DOOR TO COMPLY WITH REQUIREMENTS IN THIS SECTION AND DOOR HARDWARE SETS INDICATED ON DRAWINGS.
 - DOOR HARDWARE SETS: PROVIDE QUANTITY, ITEM, SIZE, FINISH OR COLOR INDICATED, AND NAME MANUFACTURER'S PRODUCTS.
 - DESIGNATIONS: REQUIREMENTS FOR DESIGN, GRADE, FUNCTION, FINISH, SIZE, AND OTHER DISTINCTIVE QUALITIES OF EACH TYPE OF DOOR HARDWARE ARE INDICATED IN DRAWINGS.
 - NAMED MANUFACTURER'S PRODUCTS: MANUFACTURER AND PRODUCT DESIGNATION ARE LISTED FOR EACH DOOR HARDWARE TYPE REQUIRED FOR THE PURPOSE OF ESTABLISHING MINIMUM REQUIREMENTS.

PART 2 PRODUCTS

- A. ACCEPTABLE MANUFACTURERS - STOREFRONT SYSTEM:
 - MATCH EXISTING STOREFRONT AND COMPONENTS MANUFACTURER.
 - KAWNEER COMPANY, INC. PRODUCT TR1-FAB V6-411 AT EXTERIOR APPLICATIONS: WWW.KAWNEER.COM.
 - UNITED STATES ALUMINUM CORP: WWW.USALUM.COM.
 - VISTAWALL ARCHITECTURAL PRODUCTS: WWW.VISTAWALL.COM.
- B. SUBSTITUTIONS: SEE SECTION 01600 - PRODUCT REQUIREMENTS.

2.02 COMPONENTS

- A. ALUMINUM-FRAMED STOREFRONT: FACTORY FABRICATED, FACTORY FINISHED ALUMINUM FRAMING MEMBERS WITH INFILL, AND RELATED FLASHINGS, ANCHORAGE AND ATTACHMENT DEVICES.
 - FINISH: CLASS I COLOR ANODIZED AT INTERIOR, OR TO MATCH EXISTING FINISH AS INDICATED ON DRAWINGS.

2.03 MATERIALS

- A. EXTRUDED ALUMINUM: ASTM B 221 (ASTM B 221M).
- B. FASTENERS: STAINLESS STEEL.
- C. EXPOSED FLASHINGS: 0.032 INCH (0.8 MM) THICK ALUMINUM SHEET, FINISH TO MATCH FRAMING MEMBERS.
- D. CONCEALED FLASHINGS: 0.018 INCH (0.5 MM) THICK GALVANIZED STEEL.
- E. PERIMETER SEALANT: TYPE SPECIFIED IN SECTION 07900.
- F. GLASS: AS SPECIFIED IN SECTION 08800.
 - GLASS IN EXTERIOR FRAMING: TYPE INSULATED UNITS.

2.04 FINISHES

- A. COMPLY WITH AA DAF-45 FOR ALUMINUM FINISHES REQUIRED.
- B. CLASS 100 OR ANODIZED FINISH. ANODIC COATING TO MATCH EXISTING, NOT LESS THAN 0.7 MILS (0.018 MM) THICK.
- C. TOUCH-UP MATERIALS: AS RECOMMENDED BY COATING MANUFACTURER FOR FIELD APPLICATION.

2.05 HARDWARE

- F. FABRICATION
 - FABRICATE COMPONENTS WITH MINIMUM CLEARANCES AND SHIM SPACING AROUND PERIMETER OF ASSEMBLY, YET ENABLING INSTALLATION AND DYNAMIC MOVEMENT OF PERIMETER SEAL.
 - ACCURATELY FIT AND SECURE JOINTS AND CORNERS. MAKE JOINTS FLUSH, HAIRLINE, AND WEATHERPROOF.
 - PREPARE COMPONENTS TO RECEIVE ANCHOR DEVICES. FABRICATE ANCHORS.
 - COAT CONCEALED METAL SURFACES THAT WILL BE IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS WITH BITUMINOUS PAINT.
 - ARRANGE FASTENERS AND ATTACHMENTS TO CONCEAL FROM VIEW.
 - REINFORCE FRAMING MEMBERS FOR IMPOSED LOADS.
 - FINISHING: APPLY FACTORY FINISH TO ALL SURFACES THAT WILL BE EXPOSED IN COMPLETED ASSEMBLIES.

PART 3 EXECUTION

- 3.01 EXAMINATION
 - VERIFY DIMENSIONS, TOLERANCES, AND METHOD OF ATTACHMENT WITH OTHER WORK.
 - VERIFY THAT WALL OPENINGS AND ADJOINING AIR AND VAPOR SEAL MATERIALS ARE READY TO RECEIVE WORK OF THIS SECTION.
- 3.02 INSTALLATION
 - INSTALL WALL SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - ATTACH TO STRUCTURE TO PERMIT SUFFICIENT ADJUSTMENT TO ACCOMMODATE CONSTRUCTION TOLERANCES AND OTHER IRREGULARITIES.
 - PROVIDE ALTERNATE ATTACHMENTS AND SHIMS TO PERMANENTLY FASTEN SYSTEM TO BUILDING STRUCTURE.
 - ALIGN ASSEMBLY PLUMB AND LEVEL. FREE OF WARP OR TWIST. MAINTAIN ASSEMBLY DIMENSIONAL TOLERANCES, ALIGNING WITH ADJACENT WORK.
 - E. PROVIDE THERMAL ISOLATION WHERE COMPONENTS PENETRATE OR DISRUPT BUILDING INSULATION.
 - F. INSTALL SILL FLASHINGS. TURN UP ENDS AND EDGES. SEAL TO ADJACENT WORK TO FORM WATER TIGHT DAM.
 - G. COORDINATE ATTACHMENT AND SEAL OF PERIMETER AIR AND VAPOR BARRIER MATERIAL.
 - H. PACK FIBROUS INSULATION IN SHIM SPACES AT PERIMETER OF ASSEMBLY TO MAINTAIN CONTINUITY OF THERMAL BARRIER.
 - I. INSTALL HARDWARE USING TEMPLATES PROVIDED.
 - J. INSTALL GLASS IN ACCORDANCE WITH SECTION 08800, USING GLAZING METHOD REQUIRED TO ACHIEVE PERFORMANCE CRITERIA.
 - K. INSTALL PERIMETER SEALANT IN ACCORDANCE WITH SECTION 07900.
- 3.03 ERECTION TOLERANCES
 - A. MAXIMUM VARIATION FROM PLUMB: 0.06 INCHES EVERY 3 FT (1.5 MM/M)
 - NON-CUMULATIVE OR 1/16 INCHES PER 10 FT (1.5 MM/M), WHICHEVER IS LESS.
 - B. MAXIMUM MISALIGNMENT OF TWO ADJOINING MEMBERS ABUTTING IN PLANE: 1/32 INCH (0.5 MM).
- 3.04 ADJUSTING
 - A. ADJUST OPERATING HARDWARE FOR SMOOTH OPERATION.
- 3.05 CLEANING AND PROTECTION
 - A. REMOVE PROTECTIVE MATERIAL FROM PRE-FINISHED ALUMINUM SURFACES.
 - B. WASH DOWN SURFACES WITH A SOLUTION OF MILD DETERGENT IN WARM WATER, APPLIED WITH SOFT, CLEAN WIPING CLOTHS. TAKE CARE TO REMOVE DIRT FROM CORNERS, WIRE SURFACES CLEAN.
 - C. REMOVE EXCESS SEALANT BY METHOD ACCEPTABLE TO SEALANT MANUFACTURER.
 - D. TOUCH-UP MINOR DAMAGE TO FACTORY APPLIED FINISH. REPLACE COMPONENTS THAT CANNOT BE SATISFACTORILY REPAIRED.
 - E. PROTECT FINISHED WORK FROM DAMAGE.
- END OF SECTION

SECTION 08710

DOOR HARDWARE

PART 1 GENERAL

- 1.01 SUMMARY
 - A. THIS SECTION INCLUDES THE FOLLOWING:
 - COMMERCIAL DOOR HARDWARE.
 - CYLINDERS FOR DOORS SPECIFIED IN OTHER SECTIONS.
- 1.03 COORDINATION
 - A. TEMPLATES: DISTRIBUTE DOOR HARDWARE TEMPLATES FOR DOORS, FRAMES, AND OTHER WORK SPECIFIED TO BE FACTORY PREPARED FOR INSTALLING DOOR HARDWARE.
- 1.04 WARRANTY
 - A. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF DOOR HARDWARE THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.
- 2.01 PRODUCTS
 - A. SCHEDULED DOOR HARDWARE
 - GENERAL: PROVIDE DOOR HARDWARE FOR EACH DOOR TO COMPLY WITH REQUIREMENTS IN THIS SECTION AND DOOR HARDWARE SETS INDICATED ON DRAWINGS.
 - DOOR HARDWARE SETS: PROVIDE QUANTITY, ITEM, SIZE, FINISH OR COLOR INDICATED, AND NAME MANUFACTURER'S PRODUCTS.
 - DESIGNATIONS: REQUIREMENTS FOR DESIGN, GRADE, FUNCTION, FINISH, SIZE, AND OTHER DISTINCTIVE QUALITIES OF EACH TYPE OF DOOR HARDWARE ARE INDICATED IN DRAWINGS.
 - NAMED MANUFACTURER'S PRODUCTS: MANUFACTURER AND PRODUCT DESIGNATION ARE LISTED FOR EACH DOOR HARDWARE TYPE REQUIRED FOR THE PURPOSE OF ESTABLISHING MINIMUM REQUIREMENTS.

PART 3 EXECUTION

- 3.01 INSTALLATION
 - A. STEEL DOORS AND FRAMES: COMPLY WITH DHI A115 SERIES. DRILL AND TAP DOORS AND FRAMES FOR SURFACE APPLIED DOOR HARDWARE ACCORDING TO ANSI A2068.
 - B. WOOD DOORS: COMPLY WITH DHI A115-W SERIES.
 - C. MOUNTING HEIGHTS: MOUNT DOOR HARDWARE UNITS AT HEIGHTS REQUIRED TO COMPLY WITH GOVERNING REGULATIONS.
 - D. INSTALL EACH DOOR HARDWARE ITEM TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. WHERE CUTTING AND FITTING ARE REQUIRED TO INSTALL DOOR HARDWARE ONTO OR INTO SURFACES THAT ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY, COORDINATE REMOVAL, STORAGE, AND REINSTALLATION OF SURFACE PROTECTIVE TRIM UNITS WITH FINISHING WORK SPECIFIED IN DIVISION 09 SECTIONS. DO NOT INSTALL SURFACE-MOUNTED ITEMS UNTIL FINISHES HAVE BEEN COMPLETED ON SUBSTRATES INVOLVED.
 - E. THRESHOLDS: SET THRESHOLDS FOR EXTERIOR IN FULL BED OF SEALANT COMPLYING WITH REQUIREMENTS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS."
 - F. ADJUSTMENT: ADJUST AND CHECK EACH OPERATING ITEM OF DOOR HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS THAT CANNOT BE ADJUSTED TO OPERATE AS INTENDED. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT AND TO COMPLY WITH REFERENCED ACCESSIBILITY REQUIREMENTS.
 - G. DOOR CLOSERS: UNLESS OTHERWISE REQUIRED BY AUTHORITIES HAVING JURISDICTION, ADJUST SWEEP PERIOD SO THAT, FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3 INCHES FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
- END OF SECTION 08710

SECTION 09216

NON-STRUCTURAL METAL FRAMING

PART 1 GENERAL

- 1.01 SUMMARY
 - A. THIS SECTION INCLUDES NON-LOAD-BEARING STEEL FRAMING MEMBERS FOR THE FOLLOWING APPLICATIONS:
 - INTERIOR FRAMING SYSTEMS (E.G., SUPPORTS FOR PARTITION WALLS, FRAMED SOFFITS, FURRING, ETC.).
 - INTERIOR SUSPENSION SYSTEMS (E.G., SUPPORTS FOR CEILINGS, SUSPENDED SOFFITS, ETC.).
- 2.01 PRODUCTS
 - A. FRAMING MEMBERS, GENERAL: COMPLY WITH ASTM C 754 FOR CONDITIONS INDICATED.
 - STEEL SHEET COMPONENTS: COMPLY WITH ASTM C 645 REQUIREMENTS FOR METAL, UNLESS OTHERWISE INDICATED.
 - PROTECTIVE COATING: ASTM A 653A 653M, G40 (Z120), HOT-DIP GALVANIZED ASTM A 653A 653M, G60 (Z180), HOT-DIP GALVANIZED MANUFACTURERS STANDARD CORROSION-RESISTANT ZINC COATING, UNLESS OTHERWISE INDICATED.

2.02 SUSPENSION SYSTEM COMPONENTS

- A. WIRE: ASTM A 641Z 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.0625 INCH DIAMETER WIRE, OR DOUBLE STRANDS OF 0.0475 INCH DIAMETER WIRE.
- B. WIRE HANGERS: ASTM A 641A 64M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.162 INCH DIAMETER.
- C. FURRING CHANNELS (FURRING MEMBERS):
 - COLD-ROLLED CHANNELS: 0.0538 INCH BARE-STEEL THICKNESS, WITH MINIMUM 1/4 INCH WIDE FLANGES, 1/4 INCH DEEP.
 - STEEL STUDS: ASTM C 645.
 - MINIMUM BASE METAL THICKNESS: AS INDICATED ON DRAWINGS.
 - DEPTH: AS INDICATED ON DRAWINGS.
 - HAT-SHAPED, RIGID FURRING CHANNELS: ASTM C 645, DEPTH AS INDICATED ON DRAWINGS.
 - MINIMUM BASE METAL THICKNESS: AS INDICATED ON DRAWINGS.
- D. GRID SUSPENSION SYSTEM FOR CEILINGS: ASTM C 645, DIRECT-HUNG SYSTEM COMPOSED OF MAIN BEAMS AND CROSS-FURRING MEMBERS THAT INTERLOCK.
 - AVAILABLE PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - ARMSTRONG WORLD INDUSTRIES, INC. DRYWALL GRID SYSTEMS.
 - USG CORPORATION DRYWALL SUSPENSION SYSTEM.

2.03 STEEL FRAMING FOR FRAMED ASSEMBLIES

- A. STEEL STUDS AND RUNNERS: ASTM C 645.
- 2.04 AUXILIARY MATERIALS
 - A. FASTENERS FOR METAL FRAMING: OF TYPE, MATERIAL, SIZE, CORROSION RESISTANCE, HOLDING POWER, AND OTHER PROPERTIES REQUIRED TO FASTEN STEEL MEMBERS TO SUBSTRATES.

PART 3 EXECUTION

- 3.01 INSTALLATION, GENERAL
 - A. INSTALLATION STANDARD: ASTM C 754.
- 3.02 INSTALLING SUSPENSION SYSTEMS
 - A. ISOLATE SUSPENSION SYSTEMS FROM BUILDING STRUCTURE WHERE THEY ABUT OR ARE PENETRATED BY BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADING IMPOSED BY STRUCTURAL MOVEMENT.
 - B. SUSPEND HANGERS FROM BUILDING STRUCTURE AS FOLLOWS:
 - INSTALL HANGERS PLUMB AND FREE FROM CONTACT WITH INSULATION OR OTHER OBJECTS WITHIN CEILING PLENUM THAT ARE NOT PART OF SUPPORTING STRUCTURAL OR SUSPENSION SYSTEM.
 - SPLAY HANGERS ONLY WHERE REQUIRED TO MISS OBSTRUCTIONS AND OFFSET RESULTING HORIZONTAL FORCES BY BRACING, COUNTERSPLAYING, OR OTHER EQUALLY EFFECTIVE MEANS.
 - WHERE WIDTH OF DUCTS AND OTHER CONSTRUCTION WITHIN CEILING PLENUM PRODUCES HANGER SPACINGS THAT INTERFERE WITH LOCATIONS OF HANGERS REQUIRED TO SUPPORT STANDARD SUSPENSION SYSTEM MEMBERS, INSTALL SUPPLEMENTAL SUSPENSION MEMBERS AND HANGERS IN THE FORM OF TRAPEZES OR EQUIVALENT DEVICES.
 - DO NOT CONNECT OR SUSPEND STEEL FRAMING FROM DUCTS, PIPES, OR CONDUIT.
 - C. SEISMIC BRACING: SWAY-BRACE SUSPENSION SYSTEMS WITH HANGERS USED FOR SUPPORT.
 - D. GRID SUSPENSION SYSTEMS: ATTACH PERIMETER WALL TRACK OR ANGEL WHERE GRID SUSPENSION SYSTEMS MEET VERTICAL SURFACES. MECHANICALLY JOIN MAIN BEAM AND CROSS-FURRING MEMBERS TO EACH OTHER AND BUTT-CUT TO FIT INTO WALL TRACK.
 - E. INSTALLATION TOLERANCES: INSTALL SUSPENSION SYSTEMS THAT ARE LEVEL TO WITHIN 1/8 INCH IN 12 FEET MEASURED LENGTHWISE ON EACH MEMBER THAT WILL RECEIVE FINISHES AND TRANSVERSELY BETWEEN PARALLEL MEMBERS THAT WILL RECEIVE FINISHES.

NO DATE REVISIONS

REVISIONS

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PROJECT NO: 2019.0172
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CHECKED: TG DRAWN: KW