H. INSTALLATION

1. INSTALL FRAMES AND HARDWARE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. USE ANCHORAGE DEVICES TO SECURELY ATTACH FRAME TO STRUCTURE.
3. ALIGN FRAMES PLUMB AND LEVEL, FREE OF WARP OR TWIST. MAINTAIN DIMENSIONAL TOLERANCES, ALIGNING WITH ADJACENT WORK.
4. SUB-SILLS AT EXTERIOR FRAMING:
   - 4.1. PROVIDE EXTRUDED ALUMINUM SUB-SILLS IN ACCORDANCE WITH MANUFACTURER / INSTALLATION INSTRUCTIONS AND AS SPECIFIED BELOW.
   - 4.2. PROVIDE MANUFACTURER / STANDARD END DAMS AND SPLICE PLATES SEALED INTO POSITION. END DAMS AND SPLICE PLATES SHALL MATCH THE HEIGHT OF THE SUB-SILL BACK.
   - 4.3. SEAL JOINT BETWEEN END DAM AND JAMB.
   - 4.4. FASTEN THE SUB-SILL SECURELY TO THE SILL CONSTRUCTION. CAP SEAL TOPS OF FASTENERS.
   - 4.5. FASTEN THE STOREFRONT FRAMING INTO THE SUB-SILL. USE MANUFACTURER / STANDARD INTERLOCKING ANCHORS WHICH ENGAGE THE SUB-SILL AND ALLOW FASTENING OF THE STOREFRONT WITHOUT PENETRATING THE HORIZONTAL PAN OF THE SUB-SILL.
   - 4.6. PROVIDE FLEXIBLE FLASHING OVER END DAMS. INTEGRATE WITH BUILDING PAPER SYSTEMS PROVIDED UNDER OTHER SECTIONS.
5. INSTALL WATER DIVERTERS AT EXTERIOR FRAMING.
6. COMPENSATION HEADS:
   - 2.1. PROVIDE COMPENSATION CHANNELS AT HEAD CONDITIONS IN ACCORDANCE WITH MANUFACTURER / INSTALLATION INSTRUCTIONS AND AS SPECIFIED BELOW.
   - 2.2. PROVIDE MANUFACTURER / STANDARD END CAPS SEALED INTO POSITION. END CAPS SHALL MATCH THE HEIGHT OF THE COMPENSATION CHANNEL AND SHALL BE PRE-FINISHED TO MATCH THE FRAMING AT EXPOSED LOCATIONS.
   - 2.3. PROVIDE INTERLOCKING MULLION ANCHORS AT VERTICAL TUBES.
3. PROVIDE PLASTIC BACKING PLATES AT JAMBS TO RECEIVE SEALANT AND BACKING ROD.
4. PERIMETER SEALANT IS PROVIDED UNDER SECTION 07920.
5. ADJUST HARDWARE INSTALLED IN THIS SECTION FOR SMOOTH OPERATION.
6. ISOLATE ALUMINUM FROM DISSIMILAR MATERIALS. KEEP ISOLATION MATERIALS UNEXPOSED TO VIEW.

SECTION - 08710 - DOOR HARDWARE

A. SUPPLIER: FINISH HARDWARE SHALL BE SUPPLIED BY RECOGNIZED BUILDERS' HARDWARE SUPPLIER WHO HAS BEEN FURNISHING HARDWARE IN THE SAME AREA AS THE PROJECT FOR A PERIOD OF NOT LESS THAN TWO YEARS. THE SUPPLIER'S ORGANIZATION SHALL INCLUDE A MEMBER OF THE AMERICAN SOCIETY OF ARCHITECTURAL HARDWARE CONSULTANTS WHO IS AVAILABLE AT ALL REASONABLE TIMES DURING THE COURSE OF THE WORK, TO MEET WITH THE OWNER, OWNER / REPRESENTATIVE, OR CONTRACTOR FOR PROJECT HARDWARE CONSULTATION.

B. INSTALLER: FINISH HARDWARE SHALL BE INSTALLED ONLY BY EXPERIENCED TRADESMEN IN COMPLIANCE WITH TRADE UNION JURISDICTIONS, EITHER AT THE DOOR AND FRAME FABRICATION PLANT OR AT THE PROJECT SITE.

C. CODES:
1. ALL FINISH HARDWARE SHALL COMPLY WITH APPLICABLE LOCAL AND/OR STATE CURRENT BUILDING CODES.
2. HARDWARE FOR FIRE-RATED OPENINGS SHALL ALSO BE IN COMPLIANCE WITH ALL FIRE AND BUILDING CODES APPLICABLE TO THE DISTRICT IN WHICH THE BUILDING IS LOCATED. PROVIDE ONLY HARDWARE WHICH HAS BEEN TESTED AND LISTED BY UL FOR THE TYPES AND SIZES OF DOORS REQUIRED, AND WHICH COMPLIES WITH THE REQUIREMENTS OF THE DOOR AND DOOR FRAME LABELS.
3. PROVIDE SMOKE SEALS AS REQUIRED AT EACH FIRE-RATED OPENING.

D. DELIVERY: DELIVER ALL HARDWARE IN MANUFACTURERS' ORIGINAL UNOPENED UNDAMAGED PACKAGES, CLEARLY IDENTIFYING MANUFACTURER, BRAND NAME & CONTENTS.

E. IN ADDITION TO REQUIRED ONE-YEAR WARRANTY UNDER CONDITIONS OF THE CONTRACT, FURNISH 5-YEAR UNCONDITIONAL GUARANTEES FOR ALL DOOR CLOSERS, UNDER PROVISIONS OF SECTION 01700.

F. FACTORY REPRESENTATIVES FOR DOOR CLOSERS, EXIT BOLTS, AND LOCKSETS SHALL BE AVAILABLE DURING THE CONSTRUCTION TO INSTRUCT THE CONTRACTOR ON THE PROPER METHOD OF INSTALLATION OF THEIR MATERIALS. THEY SHALL INSPECT AND ADJUST THEIR MATERIALS AT THE COMPLETION OF THE WORK, AND SUPPLY PROPER MAINTENANCE MANUALS TO THE OWNER.

G. FURNISH 2 SETS OF SPECIAL TOOLS FOR INSTALLATION AND MAINTENANCE OF HARDWARE. TOOLS FOR MAINTENANCE AND ADJUSTMENTS ARE TO BE DELIVERED TO THE OWNER UPON COMPLETION OF THE WORK.

H. IN GENERAL, UNLESS OTHERWISE INDICATED, FINISHES SHALL BE AS FOLLOWS:
1. SATIN STAINLESS US32D

I. GENERAL: CONSTRUCTION MASTERKEY ALL LOCKSETS AND CYLINDER ITEMS; PROVIDE 6 CONSTRUCTION MASTERKEYS.

J. KEYING: CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL KEYING, AS FOLLOWS:
1. CONSULT WITH OWNER / AUTHORIZED REPRESENTATIVE AND PREPARE DETAILED KEYING SCHEDULE ACCORDINGLY. OWNER'S REPRESENTATIVE WILL COORDINATE KEYING REQUIREMENTS WITH AUTHORIZED REPRESENTATIVE OF HARDWARE SUPPLIER.
2. ALL LOCKS AND LOCKSETS SHALL ACCOMMODATE "BEST" 7-PIN KEYING SYSTEM.
3. STAMP "DO NOT DUPLICATE" ON ALL KEYS.

K. HARDWARE:
1. HARDWARE IS SCHEDULED ON THE DRAWINGS.
2. COMPLY WITH REQUIREMENTS INDICATED BELOW.

L. BUTTS:
1. PROVIDE BUTTS ON EXTERIOR DOORS WITH NON-REMOVABLE PINS (SET SCREW IN BARREL, PIN NON REMOVABLE WHEN DOOR IS CLOSED), AND SAFETY STUD.
2. PROVIDE FULL THREADED WOOD SCREWS FOR WOOD DOORS AND/OR JAMBS.
3. BUTT WIDTHS LISTED ARE MINIMUM. PROVIDE BUTTS OF WIDER THROW TO SUIT CONDITIONS FOR 180 DEGREE OPERATION OF DOORS, STRUCTURAL CONDITIONS PENDING.

M. LOCKSETS, DEADLOCKS, CYLINDERS AND PADLOCKS:
1. PROVIDE NEW CYLINDER AT EACH EXISTING DOOR THAT HAS DEADLOCK OR LOCKSET.
2. PROVIDE LOCK STRIKES WITH MINIMUM PROJECTION TO PROTECT TRIM.
3. PROVIDE WROUGHT BOXES FOR LOCKSETS AND DEADLOCKS.
4. PROVIDE DEADLOCKS WITH ARMORED FRONTS.
5. FUNCTION AS INDICATED IN HARDWARE GROUPS.
6. DEAD BOLTS AT EXTERIOR DOORS SHALL HAVE A MINIMUM THROW OF 1 INCH AND MINIMUM EMBEDMENT OF 3/4 INCH.

N. DOOR CLOSERS:
1. ALL OVERHEAD CLOSERS TO BE MOUNTED ON INTERIOR SIDE OF DOOR, NO THRU BOLTS.
2. PROVIDE MOUNTING BRACKETS AND PROPER LENGTH ARMS TO SUIT ALL CONDITIONS. PROVIDE ARM OPTIONS AS SCHEDULED OR RECOMMENDED BY MANUFACTURER.
3. SIZES SHALL BE AS RECOMMENDED BY THE MANUFACTURER. CLOSERS SHALL HAVE A 5-YEAR UNCONDITIONAL GUARANTEE. FINISH SHALL MATCH LOCKSETS
4. PROVIDE FULL METAL COVERS AT OVERHEAD CLOSERS UNLESS OTHERWISE INDICATED, MATCH FINISH OF LOCKSET/LATCHSET AT EACH DOOR.
5. CLOSURE PRESSURE: SET TO 8.5 POUNDS FOR EXTERIOR DOORS AND 5 LBS FOR INTERIOR DOORS, PER CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.

O. DOOR STOPS AND OVERHEAD STOPS:
1. LOCATE FLOOR STOPS FREE FROM FOOT TRAFFIC.

P. THRESHOLDS:
1. ACCEPTABLE MANUFACTURERS:
   - I1. PEMKO INC.
   - I2. NATIONAL GUARD
   - I3. REESE
   - I4. WOOSTER
   - I5. ZERO
2. TYPES AS SCHEDULED IN THE DRAWINGS.
3. INSTALL THRESHOLDS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4. ENSURE PROPER WEATHER-STRIPPING IS MAINTAINED.

Q. MISCELLANEOUS:
1. PROVIDE SILENCERS FOR ALL DOOR JAMBS, 3 FOR SINGLE JAMBS AND 4 FOR DOUBLE JAMBS.

R. FURNISH FOR EACH DOOR THE ITEMS SCHEDULED WITHIN THE DESIGNATED HARDWARE GROUPS AS SHOWN ON THE DRAWINGS.

S. ADJUSTMENTS AND TESTING:
1. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. LUBRICATE MOVING PARTS WITH GRAPHITE TYPE LUBRICANT UNLESS OTHERWISE RECOMMENDED BY THE HARDWARE MANUFACTURER. REPLACE UNITS THAT CANNOT BE ADJUSTED AND LUBRICATED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.
2. ADJUST CLOSER PRESSURES AS SPECIFIED IN SECTION 08710, UNLESS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITIES.
3. TESTING:
   - 3.1. TEST CLOSER FOR COMPLIANCE WITH REQUIREMENTS OF SECTION 08710, INCLUDING OPENING FORCE AND CLOSING SPEED REQUIRED BY JURISDICTIONAL AUTHORITIES.
   - 3.2. PROVIDE TESTING DEVICE, OPERATE TEST AT EACH DOOR, AND PROVIDE A WRITTEN REPORT ON RESULTS OF TESTS.
   - 3.3. TESTING DEVICE SHALL REMAIN IN THE POSSESSION OF THE OWNER.

Q. MISCELLANEOUS:
1. PROVIDE SILENCERS FOR ALL DOOR JAMBS, 3 FOR SINGLE JAMBS AND 4 FOR DOUBLE JAMBS.

R. FURNISH FOR EACH DOOR THE ITEMS SCHEDULED WITHIN THE DESIGNATED HARDWARE GROUPS AS SHOWN ON THE DRAWINGS.

S. ADJUSTMENTS AND TESTING:
1. ADJUST AND CHECK EACH OPERATING ITEM OF HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OF FUNCTION OF EVERY UNIT. LUBRICATE MOVING PARTS WITH GRAPHITE TYPE LUBRICANT UNLESS OTHERWISE RECOMMENDED BY THE HARDWARE MANUFACTURER. REPLACE UNITS THAT CANNOT BE ADJUSTED AND LUBRICATED TO OPERATE FREELY AND SMOOTHLY AS INTENDED FOR THE APPLICATION MADE.
2. ADJUST CLOSER PRESSURES AS SPECIFIED IN SECTION 08710, UNLESS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITIES.
3. TESTING:
   - 3.1. TEST CLOSER FOR COMPLIANCE WITH REQUIREMENTS OF SECTION 08710, INCLUDING OPENING FORCE AND CLOSING SPEED REQUIRED BY JURISDICTIONAL AUTHORITIES.
   - 3.2. PROVIDE TESTING DEVICE, OPERATE TEST AT EACH DOOR, AND PROVIDE A WRITTEN REPORT ON RESULTS OF TESTS.
   - 3.3. TESTING DEVICE SHALL REMAIN IN THE POSSESSION OF THE OWNER.

SECTION - 08800 GLAZING

A. SUMMARY:
1. GLASS AND GLAZING FOR SC, FURNISHED & INSTALLED INTERIOR AND EXTERIOR ALUMINUM STOREFRONT SYSTEMS
2. TRANSLUCENT WINDOW FILM (WHEN INDICATED ON THE DRAWINGS)

B. MATERIALS:
1. GLASS: PROVIDE THE FOLLOWING GLASS AS SCHEDULED AT THE END OF THIS SECTION:
   - I1. CLEAR TEMPERED GLASS: ASTM C1048, KIND FT (FULLY TEMPERED), CONDITION A (UNCOATED), TYPE I (TRANSPARENT GLASS, FLAT), CLASS 1 (CLEAR), QUALITY Q3 (GLAZING SELECT). CONFORM TO ANSI Z97.1 AND CPSC 16CFR PART 1201.
     - I1.1. THICKNESS: 6.0 MM (1/4 INCH), UNLESS INDICATED OTHERWISE.
     - I1.2. THICKNESS: 10.0 MM (3/8 INCH), WHEN SHOWN ON DRAWINGS.
     - I1.3. IDENTIFICATION: EACH UNIT OF TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED ON THE GLASS AND BE VISIBLE WHEN THE UNIT IS GLAZED.
   - I2. INSULATED UNITS - CLEAR TEMPERED GLASS: DOUBLE PANE UNITS WITH BOTH INNER AND OUTER PANES OF CLEAR TEMPERED GLASS AS SPECIFIED ABOVE.
     - I2.1. GLASS THICKNESS: 6.0 MM (1/4 INCH), UNLESS INDICATED OTHERWISE.
     - I2.2. UNIT THICKNESS: 1 INCH THICK UNITS, 6.0 MM (1/4 INCH) THICK INNER AND OUTER PANES, WITH 1/2 INCH AIR SPACE BETWEEN.
     - I2.3. EACH UNIT OF TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION SHALL BE ETCHED OR CERAMIC FIRED ON THE GLASS AND BE VISIBLE WHEN THE UNIT IS GLAZED. TEMPERED SPANDREL GLASS IS EXEMPTED FROM PERMANENT LABELING BUT SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A REMOVABLE PAPER LABEL.
   - I3. MIRRORS - TEMPERED MIRROR GLASS: 1/4 INCH THICK, ASTM C1048 FOR KIND FT (FULLY TEMPERED), CONDITION C (OTHER COATED GLASS), TYPE I (TRANSPARENT GLASS, FLAT), CLASS 2 (TINTED HEAT ABSORBING AND LIGHT REDUCING), QUALITY Q3 (GLAZING SELECT) WITH COATING TYPE AND PERFORMANCE CHARACTERISTICS AS SPECIFIED.
     - I3.1. COATING AND TINT: PYROLYTIC DEPOSITED SILVER METALLIC OXIDE COATING ON CLEAR GLASS WITH VISIBLE LIGHT TRANSMITTANCE OF 12 PERCENT AND VISIBLE REFLECTANCE
2. ACCESSORIES:
   - 2.1. SETTING BLOCKS: COMPATIBLE WITH SILICONE SEALANTS; 70-90 SHORE A HARDNESS.
   - 2.2. SPACERS: COMPATIBLE WITH SILICONE SEALANT.
   - 2.3. GLAZING TAPE: TREMCO "CCN" SPONGE, OR APPROVED.
   - 2.4. SILICONE SEALANT: DOW CORNING "795", CLEAR COLOR.

C. FABRICATION:
1. INSULATING GLASS UNITS:
   - I1. DUAL LITE UNITS FABRICATED FROM GLASS AS SCHEDULED; DUAL SEAL SYSTEM.
   - I2. THIN SEALS: POLYISOBUTYLENE PRIMARY SEAL AND SILICONE SECONDARY SEAL. OUTER SEAL SHALL BE COMPATIBLE WITH GLAZING SYSTEM.
   - I3. SPACER BAR: MILL FINISH ALUMINUM, FILL WITH DESICCANT; CORNERS SHALL BE PARTIALLY MITER CUT AND BENT (NOT CUT THROUGH), OR FORMED WITH CORNER KEYS ULTRASONICALLY SOLDERED IN PLACE.
   - I4. CERTIFIED THROUGH THE INSULATING GLASS CERTIFICATION COUNCIL (IGCC) IN ACCORDANCE WITH ASTM E773 AND E774; CERTIFIED TO LEVEL CBA.
   - I5. EACH PIECE SHALL BEAR CERTIFICATION NUMBER, DATE, AND MANUFACTURER'S IDENTIFICATION MARK.
   - I6. PROVIDE TEN-YEAR MANUFACTURER'S WARRANTY, COVERING SEAL FAILURE, INTERPANE DUSTING OR MISTING.
2. TEMPERED GLASS:
   - 2.1. GLASS WHICH HAS BEEN HEAT TREATED TO STRENGTHEN GLASS IN BENDING TO NOT LESS THAN 4.5 TIMES THE ANNEALED STRENGTH; FREE OF "TONG MARKS". CERTIFIED SAFETY GLASS IN ACCORDANCE WITH ANSI Z97.1.
   - 2.2. FABRICATE TEMPERED GLASS UNITS SO THAT PRINCIPLE DISTORTION WILL BE IN THE HORIZONTAL DIRECTION IN THE FINISHED INSTALLATION.
   - 2.3. UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL, PROVIDE MANUFACTURER'S LABEL ON EACH LITE, INDICATING TYPE AND THICKNESS OF GLASS.
3. LOW-E COATING: PPG INDUSTRIES, PITTSBURGH, PA. SOLARBAN 60.

D. INSTALLATION:
1. GLAZE IN ACCORDANCE WITH GLASS ASSOCIATION OF NORTH AMERICA (GANA) GLAZING MANUAL.
2. SETTING BLOCKS: PLACE SETTING BLOCKS IN FRAMES FOR SUPPORT OF GLASS, PLACE AT QUARTER POINTS UNLESS APPROVED OTHERWISE.
3. SET GLASS TIGHTLY IN POSITION WITH PROPER CLEARANCES IN ACCORDANCE WITH THE REFERENCED STANDARDS.
4. PERIMETER GLASS CLEARANCES WITHIN SETTING FRAME SHALL BE IN ACCORDANCE WITH GANA RECOMMENDATIONS, AND AS REQUIRED TO PROVIDE FOR WIND, EARTHQUAKE DRIFT, AND THERMAL EXPANSION.
5. UNLESS SPECIFIED OTHERWISE, GLAZE UNITS WITH GASKETS FURNISHED WITH THE FRAMING SYSTEMS SPECIFIED IN OTHER SECTIONS.
6. PROVIDE REPLACEMENT-GLAZING GASKETS WHERE EXISTING FRAMES ARE REGLAZED.
4. GLAZING FOR INTERIOR NON-RATED DOORS AND WINDOWS, WHERE GASKETS ARE NOT FURNISHED:
   - 4.1. GLAZE WITH GLAZING TAPE.
   - 4.2. PRE-MEASURE AND CUT TAPES TO REQUIRED LENGTHS; ADHERE TO FIXED STOPS, SETTING HORIZONTAL TAPE AT HEADS AND SILLS BEFORE VERTICAL TAPE.
   - 4.3. INSTALL TAPE WITH TIGHT BUTT JOINTS; NO OVERLAPS WILL BE ACCEPTED. SET TAPE WITH STRAIGHT LINES LEVEL WITH FRAME SIGHT LINE.
   - 4.4. POSITION GLASS, UNIFORMLY SEALING AGAINST TAPE. INSTALL INSIDE REMOVABLE STOPS AND PLACE TAPE IN STOPS FORMING A UNIFORM SEAL AGAINST GLASS, LEVEL WITH SIGHT LINES.
5. GLAZING FOR FIRE RATED DOORS AND WINDOWS: GLAZE IN ACCORDANCE WITH NFPA 80, UNLESS REQUIRED OTHERWISE BY THE LABELING REQUIREMENT OF THE FRAME.

E. WINDOW FILM: REFER TO FINISH SCHEDULE.

F. PROVIDE TEMPERED SAFETY GLASS WHEN LOCATED IN THE FOLLOWING AREAS:
1. IN ALL HINGED AND SLIDING GLAZED DOORS, EXCEPT WHERE WIRE GLASS IS REQUIRED TO MEET FIRE RATING REQUIREMENTS.
2. GLASS WHOSE NEAREST VERTICAL EDGE IS WITHIN 24 INCHES OF A DOOR OPENING, AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
3. GLASS UNITS LARGER THAN 9 SQUARE FEET IN AREA, WHOSE BOTTOM EDGE IS WITHIN 18 INCHES OF A FLOOR OR WALKING SURFACE WHICH IS IN TURN WITHIN 36 INCHES MEASURED HORIZONTALLY FROM THE GLASS UNIT.

SECTION - 09110 - LIGHT GAGE METAL SUPPORT FRAMING

A. SYSTEM DESCRIPTION:
1. SELECT FRAMING SYSTEMS, GAGES, SUPPORTS, BRACING, AND CONNECTIONS AS NECESSARY TO RESIST THE DESIGN LOADS SPECIFIED.
2. PARTITION FRAMING SHALL CONFORM TO THE WIDTHS INDICATED, UNLESS APPROVED OTHERWISE. PROVIDE HEAVIER GAGES AND DECREASED STUD SPACING AS NECESSARY TO MEET THE STRUCTURAL REQUIREMENTS.
3. STRUCTURAL REQUIREMENTS:
   - 3.1. DEFLECTION REQUIREMENTS: MAXIMUM OF 1/240 THE SPAN.
   - 3.2. DESIGN LOADS:
     - 3.2.1. INTERIOR CEILING ASSEMBLIES: 5 POUNDS PER SQUARE FOOT UNIFORM LIVE LOAD, PLUS DEAD LOADS.
     - 3.2.2. INTERIOR PARTITIONS WITHOUT WALL MOUNTED CASEWORK: 5 POUNDS PER SQUARE FOOT UNIFORM LIVE LATERAL LOAD.
     - 3.2.3. INTERIOR PARTITIONS WITH WALL MOUNTED CASEWORK: 5 POUNDS PER SQUARE FOOT UNIFORM LIVE LATERAL LOAD, PLUS CASEWORK DEAD LOAD, PLUS CASEWORK LIVE LOAD OF 25 PSF OF SHELF AND COUNTER TOP AREA.

B. CODE REQUIREMENTS:
1. PROVIDE ASSEMBLIES MEETING THE HOURLY FIRE RATINGS INDICATED AND SPECIFIED. ASSEMBLIES SHALL BEEN TESTED IN ACCORDANCE WITH ASTM E81, AND SHALL BE APPROVED BY THE LOCAL JURISDICTIONAL CODE AUTHORITIES. COORDINATE INSTALLATION OF OTHER MATERIALS THAT ARE A PART OF EACH ASSEMBLY.
2. FIRE RATING REQUIREMENTS TAKE PRECEDENCE OVER THE CONSTRUCTION REQUIREMENTS INDICATED. IN THE EVENT OF CONFLICT, NOTIFY THE OWNER / REPRESENTATIVE, AND DO NOT BEGIN CONSTRUCTION IN THE AREA OF CONFLICT UNTIL THE CONFLICT HAS BEEN RESOLVED.
3. PROVIDE ALL CALCULATIONS, DRAWINGS, PRODUCT DATA, AND OTHER VERIFICATION AS REQUIRED BY THE JURISDICTIONAL CODE AUTHORITY TO OBTAIN APPROVAL OF THE LIGHT GAGE METAL FRAMING INSTALLATION.

C. MATERIALS:
1. LIGHT GAGE METAL FRAMING: ASTM C645; GALVANIZED; PROVIDE "C" SHAPED STUDS, U SHAPED RUNNERS, HAT AND "Z" SHAPED FURRING CHANNELS, AND OTHER SIZES AND SHAPES AS INDICATED ON THE DRAWINGS, AND AS SPECIFIED; MINIMUM 25 GAGE.
2. COLD ROLLED CHANNELS: RUST INHIBITIVE PAINT COATING; SIZES IN ACCORDANCE WITH ASTM C754.
3. SCREWS: SELF-TAPPING; LOW PROFILE HEAD.
4. OTHER FRAMING MATERIALS: FURNISH IN ACCORDANCE WITH ASTM C754.
   - 4.1. SECURE RUNNERS WITH FASTENERS AT MAXIMUM 24 INCHES O.C.
   - 4.2. AT CONCRETE FLOORS, USE POWDER DRIVEN FASTENERS OR DRILLED IN CONCRETE ANCHORS.
   - 4.3. WHERE WALLS ARE INDICATED AS NOT BEING CONTINUOUS TO STRUCTURE ABOVE, ATTACH TOP RUNNER TO ACOUSTICAL CEILING GRID WITH SCREWS AT 24 INCHES ON CENTER. PROVIDE SPACER STRIP BETWEEN RUNNER AND CEILING SUSPENSION SYSTEM TO ALLOW TEGULAR OR REVEAL EDGE ACOUSTICAL PANELS TO CLEAR PARTITION.

D. PARTITION FRAMING:
1. RUNNERS:
2. UNLESS INDICATED OTHERWISE, INSTALL STUDS VERTICALLY AT 16 INCHES O.C, AND NOT MORE THAN 2 INCHES FROM ABUTTING CONSTRUCTION, AT EACH SIDE OF OPENINGS, AND AT CORNERS.
3. FIT RUNNERS UNDER AND ABOVE OPENINGS; SECURE INTERMEDIATE STUDS AT SPACING OF WALL STUDS.
4. BRACE PARTITION FRAMING SYSTEM AND MAKE RIGID. PROVIDE DIAGONAL STUD BRACING AT 8 FT ON CENTER AT ALL FRAMING THAT DOES NOT EXTEND TO STRUCTURE.
5. INSTALL DOUBLE STUDS CONTINUOUS FROM FLOOR TO TOP TRACK AT THE JAMB OF EACH DOOR FRAME AND CASED OPENING. STUDS SHALL BE AT LEAST THE SAME GAGE AS THE ADJACENT STUDS, BUT IN NO CASE LESS THAN 20-GAGE.
6. PROVIDE MINIMUM 20 GAGE STUDS AT ALL PARTITIONS SUPPORTING CASEWORK OR COUNTER TOPS.
7. COORDINATE ERECTION OF STUDS WITH INSTALLATION OF SERVICE UTILITIES. ALIGN STUD WEB OPENINGS.
8. COORDINATE ERECTION OF STUD SYSTEM WITH REQUIREMENTS OF DOOR AND WINDOW FRAMES, FIRE EXTINGUISHER CABINETS, RECESSED TOILET ACCESSORIES, ACCESS DOORS, AND OTHER CONSTRUCTION WITHIN MOUNTED PARTITION CONSTRUCTION.
9. COORDINATE THE INSTALLATION OF FRAMING WITH THE GYPSUM BOARD INSTALLER TO ENSURE SUPPORT AT ALL BOARD EDGES. PROVIDE FRAMING IMMEDIATELY EITHER SIDE OF EXPANSION JOINTS.
10. STUD SPLICING NOT PERMISSIBLE.
11. AT NON-LOAD BEARING FULL HEIGHT PARTITIONS SUBJECT TO COMPRESSION CAUSED BY OVERHEAD STRUCTURAL DEFLECTION, CUT STUDS 1/2 INCH SHORT FROM FULL HEIGHT. DO NOT RIGIDLY CONNECT STUD TO TOP RUNNER.
12. STUD BRIDGING:
    - 12.1. AT INTERIOR PARTITIONS GREATER THAN 4 FEET IN LENGTH, AND WITH RIGID FACING MATERIAL ON ONE STUD FLANGE ONLY, PROVIDE 3/4" BRIDGING CHANNELS IN HORIZONTAL ROWS AT A MAXIMUM OF 5'-0" ON CENTER FOR THE FULL HEIGHT OF THE PARTITION.
    - 12.2. INTERIOR FULL HEIGHT PARTITIONS (STUDS EXTENDING FROM THE FLOOR TO THE STRUCTURE ABOVE) WITH RIGID FACING MATERIAL STOPPING 3'-0" OR MORE BELOW TOP OF STUDS. PROVIDE ONE ROW 3/4" BRIDGING CHANNEL HORIZONTALLY AT TERMINATION OF GYPSUM BOARD MATERIAL, AND ONE ADDITIONAL ROW FOR EACH 5'-0" OF EXPOSED STUDS.
    - 12.3. INSTALL STUD BRIDGING CHANNELS IN LONG LENGTHS, WIRE TYING AND LAPPING THE JOINTS A MINIMUM OF 12". ATTACH BRIDGING CHANNEL TO EACH STUD AS SHOWN IN MANUFACTURER'S PRINTED INSTRUCTIONS.

E. BACKING:
1. BLOCKING AND BACKING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 06100.

F. STUD AND RUNNER CEILING FRAMING:
1. SECURE RUNNERS TO STRUCTURE ABOVE WITH FASTENERS AS SHOWN ON THE DRAWINGS.
2. SCREW-FASTEN FRAMING AT EACH JOINT.
3. PROVIDE DETAILING AS INDICATED TO ALLOW FOR DEFLECTION OF BUILDING STRUCTURE.
4. PROVIDE BRACING TO MEET SEISMIC REQUIREMENTS AS REQUIRED BY LOCAL CODE.

G. SUSPENDED CEILING FRAMING:
1. PROVIDE SUSPENDED FRAMING AS SPECIFIED IN ASTM C754, UNLESS OTHERWISE DETAILED.
2. SUSPEND CEILING FROM OVERHEAD CONCRETE DECK AND STRUCTURAL ELEMENTS ONLY PER LL, REQUIREMENTS. DO NOT SUPPORT FROM ANY ELECTRICAL, HVAC, PLUMBING, OR SPRINKLER SYSTEM COMPONENTS. WHERE OVERHEAD OBSTRUCTIONS PREVENT THE REGULAR SPACING OF HANGERS, PROVIDE SECONDARY CARRYING MEMBERS FOR INDIRECT SUPPORT OF THE SUSPENSION SYSTEM, OR REINFORCE THE NEAREST ADJACENT HANGERS AND RELATED FRAMING COMPONENTS AS REQUIRED TO SPAN THE REQUIRED DISTANCE.
3. SPACE CARRYING CHANNELS 4 FEET ON CENTER WITH ALL SPLICES LAPPED 12 INCHES AND TIED.
4. SUPPORT COLD ROLLED CARRYING CHANNELS WITH HANGER WIRES SPACED AT 4 FEET ON CENTER FOR GYPSUM BOARD CEILINGS. LOOP HANGER WIRE AROUND SUPPORT ELEMENT AND TIGHTLY WRAP AROUND VERTICAL WIRE 3 TIMES; CUT OFF NEATLY.
5. SPACE FURRING CHANNELS 16" O.C. WITH ALL SPLICES LAPPED 12", MINIMUM AND TIED; CLIP OR SADDLE TIE TO RUNNER CHANNELS WITH 16GA. TIE WIRE.
6. PROVIDE BRACING TO MEET SEISMIC REQUIREMENTS.

H. INSTALLATION TOLERANCES:
1. INSTALL MEMBERS TO PROVIDE SURFACE PLANE WITH MAXIMUM VARIATION OF 1/8 INCH IN 10 FEET IN ANY DIRECTION.
2. LOCATE ASSEMBLIES WITHIN 1/4 INCH OF REQUIRED LOCATIONS.

SECTION - 09250 - GYPSUM BOARD

A. SUMMARY: INTERIOR GYPSUM BOARD.

B. MATERIALS:
1. GYPSUM BOARD:
   - 1.1. 5/8 INCH THICK, UNLESS NOTED OTHERWISE; PROVIDE TYPE X IN FIRE RATED PARTITIONS.
   - 1.2. STANDARD BOARD: ASTM C36.
   - 1.3. WATER RESISTANT BOARD: ASTM C630.
2. ACCESSORIES:
   - 2.1. TRIM: CONCEALED FLANGE CRIMP-ON OR TAPE-ON TYPE; METAL OR PVC AT CONTRACTOR'S OPTION; GA 216.
   - 2.2. JOINT COMPOUND, TAPE, AND FINISHING COMPOUND: ASTM C475 AND GA 216; USE SETTING TYPE JOINT COMPOUND AT WATER RESISTANT BOARD.
   - 2.3. GMB PRIME COAT: 1256 / BEADEX MANUFACTURING COMPANY (AUBURN, WA; 253 931 6600) "PRECOAT." DJ SCREWS: ASTM C1002.

C. INSTALLATION:
1. INSTALLATION STANDARD: UNLESS SPECIFIED OTHERWISE, PERFORM WORK IN ACCORDANCE WITH GYPSUM ASSOCIATION 216, "RECOMMENDED SPECIFICATIONS FOR THE APPLICATION AND FINISHING OF GYPSUM WALLBOARD."
2. INSTALL WATER RESISTANT BOARD AS A SUBSTRATE FOR SURFACES SCHEDULED TO RECEIVE BONDED FINISHES IN RESTROOMS.
3. SCREW-FASTEN BOARD TO FRAMING, UNLESS APPROVED OTHERWISE.
4. INSTALLATION OF GYPSUM BOARD AT CURVED SURFACES.
   - 4.1. INSTALL SINGLE LAYER OF 5/8" BOARD OR MULTIPLE LAYERS OF THINNER BOARD AT INSTALLER'S OPTION.
   - 4.2. FOR THICKER BOARD AND TIGHTER RADII, DAMPEN BOARD, BLOCK TO THE REQUIRED UNIFORM RADIUS, AND ALLOW TO SET FOR APPROX. ONE HOUR PRIOR TO INSTALL.
   - 4.3. FOR RADII TIGHTER THAN 48" DAMPEN BOARD WITH 10 TO 15 OZ OF WATER PER SIDE AND ALLOW TO SOAK FOR 15 MINUTES PRIOR TO INSTALLATION. COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR ATTACHMENT TO FRAMING.
   - 4.4. INSTALL BOARD WITH LONG DIRECTION PERPENDICULAR TO AXIS OF CURVE RADIUS.
   - 4.5. INSTALL SECOND LAYER IN ACCORDANCE WITH SPECIFICATIONS FOR "MULTIPLE LAYER APPLICATIONS."
   - 4.6. SELECT METHODS TO PRODUCE A UNIFORM RADIUS WITH SMOOTH TRANSITIONS AT JOINTS. INSTALL BOARD TIGHT TO FRAMING.
5. FINISHING:
   - 5.1. PROVIDE FINISHING IN ACCORDANCE WITH GA 214.
   - 5.2. WHERE NECESSARY TO SAND, DO SO WITHOUT DAMAGING THE FACE OF THE GYPSUM BOARD.
   - 5.3. GYPSUM BOARD SURFACES SHALL FORM A SMOOTH SURFACE FREE OF RIDGES, JOINT MARKS, FASTENER DEPRESSIONS, AND JOINT FILLER LINES. TAPERED BOARD JOINTS SHALL BE TAPED, FILLED, AND FEATHERED TO 12 INCHES EITHER SIDE OF THE JOINT. NON-TAPERED BOARD JOINTS SHALL BE TAPED, FILLED, AND FEATHERED TO 8 INCHES EITHER SIDE OF THE JOINT.
   - 5.4. FINISH EXISTING GYPSUM BOARD SURFACES TO REMAIN TO MATCH NEW GYPSUM BOARD SURFACES.
   - 5.5. LEVELS OF FINISH:
     - 5.5.1. LEVEL 5: PROVIDE AT PUBLIC AREAS, INCLUDING SURFACES TO RECEIVE EIFS FINISHES.
     - 5.5.2. LEVEL 4: PROVIDE AT BACK OF HOUSE AREAS.
6. APPLY PRIME COAT TO ALL GMB SURFACES SCHEDULED FOR LEVEL 4 AND LEVEL 5 FINISHES.

SECTION - 09300 - INTERIOR TILE

A. SUMMARY: INTERIOR TILE SYSTEMS.

B. REFERENCES:
1. AMERICAN NATIONAL STANDARDS INSTITUT