

DIVISION 8 - DOORS AND WINDOWS

SECTION 08100 - METAL DOORS AND FRAMES

PART 1 - GENERAL

1. **No narrow stile doors shall be allowed.**
2. **No full length glass doors shall be allowed.**
3. All *entrance doors* shall be equipped with recessed well matting.
4. Minimum Width – Any door intended for passage by the public shall not be less than 36” in width.
5. Glazed Lites – Where doors are provided with glazed lites and do not have a transparent full length sidelite, the bottom edge of the lite shall be no more than 43” above finished floor and shall be glazed with transparent glazing material.

PART 2 - PRODUCTS

1. ALUMINUM FRAMING SYSTEMS
  - A. Tubular Framing:
    - 1) Framing system from the door manufacturer of the size and type shown, .125" minimum wall thickness and type 6063-T5 aluminum alloy, .625" high applied door stops with screws and weatherstripping. Frame members are to be box type with stripping. Frame members are to be box type with four (4) enclosed sides. Open back framing is not be acceptable.
    - 2) Caulk joints before assembling frame members. Secure joint with fasteners and provide a hairline butt joint appearance. Prefit doors to frame assembly at factory prior to shipment. Field fabrication of framing using "stick" material is not acceptable.
    - 3) Applied stops for side, transom and borrowed lites and panels, with fasteners exposed on interior or unsecured portion only. Premachine and reinforce frame members for hardware in accordance with manufacturer's standards and the approved hardware schedule. Hardware shall be factory installed.
    - 4) Anchors appropriate for wall conditions to anchor framing to wall materials. A minimum of five anchors up to 7'4" on jamb members, and one additional anchor for each foot over 7'4". Secure head and sill members of transom, sidelites and similar conditions.
    - 5) Factory preassemble sidelites to the greatest extent possible, and mark frame assemblies according to location.

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- B. INSERT FRAMING SYSTEMS:
- 1) Model: SL-1031 or SL-1032.
  - 2) Insert fame as shown, using an integral stop fitted with weatherstripping.
  - 3) Corner joints of miter design, secure with furnished aluminum clips, and screw into place.
  - 4) Reinforce and premachine insert frame members for hardware in accordance with manufacturer's standards and the approved hardware schedule.
  - 5) Anchors of a suitable type to fasten inert framing to existing frame materials, using a minimum of fixed anchors on jambs, three on headers up to 7'4" height. One additional anchor for each additional lineal foot of frame.
  - 6) Provide framing in a knock-down condition and attach to door assembly. Mark frame members according to location.
2. Monumental Exterior Stile and Rail Doors shall be manufactured by **Special-Lite Inc., Decatur, Michigan**.
- a. Door rails and stiles are to be 1 3/4" thick tubular extrusions of 6063T5 aluminum alloy with a minimum .125" wall thickness. Width of stiles shall be 4 1/2". Top rail shall be 6 1/2". Bottom rail to be 10 1/2".
  - b. Mid-rail shall be 6 1/2" minimum.
  - c. Corner joints are to be true mortise and tenon so that rails and stiles are physically interlocked.
  - d. Rail and stile joints are to be secured with full-width 3/8" zinc-plated steel tie rods and hex nuts. Pairs of doors shall have beveled edges.
  - e. Exterior glass stops are to be an integral part of rails and stiles. Interior glass stops to be screw applied with tops of screws flush with stop.
  - f. Doors shall be internally reinforced for hinging hardware.
  - g. Doors shall be shipped with hardware installed, except for door closers or holders which shall be field installed.
  - h. Doors shall be covered by a ten year guarantee.
3. Panel Colonial Doors shall be manufactured by **Special-Lite Inc., Decatur, Michigan**.
- a. Door faces shall be fiberglass reinforced polyester .120" thickness, with wood grain finish. Colors to be permanently bonded through the full thickness of the fiberglass door face. Color shall be **UNH BLUE**.
  - b. Rails and stiles to be extruded 6063T5 aluminum alloy. All exposed surfaces to be minimum .125" wall thickness. Color shall be Sandalor Anodizing C63-2. Pairs of doors shall have beveled edges.
  - c. If door lights are required, finish shall match door faces.
  - d. Top and bottom rails to be extruded with legs for interlocking rigidity weather bar.
  - e. Face sheets to be locked in by extruded interlocking edges which are to be an integral part of rails and stiles. No snap on or applied door edge will be accepted.
  - d. Joiner to be 3/8" tie rods, bolted through an extruded spline in the top and bottom rails and 3/16" reinforcing angles.

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- f. Core to be foamed-in-place urethane of 5 pounds per cubic foot density, completely free of CFC and HCFC.
  - g. Hardware is to be factory installed except for door closers and holders which shall be field installed.
  - h. Doors shall be covered by a ten year guarantee.
4. Flush Doors shall be manufactured by **Special-Lite Inc., Decatur, Michigan.**
- a. Door faces shall be fiberglass reinforced polyester, .120" thickness, with pebble-like embossed finish. Colors to be permanently bonded through the full thickness of the fiberglass door faces.
  - b. Rails and stiles to be extruded 6063 T5 aluminum alloy. All exposed surfaces to be minimum .125" wall thickness.
  - c. Stiles shall be tubular to accept hardware as specified. Pairs of doors shall have beveled edges. If door light are required, finish shall match door faces. Top and bottom rails to be extruded with legs for interlocking rigidity weather bar.
  - d. Face sheets to be locked in by extruded interlocking edges with are to be an integral part or rails and stiles. No snap on or applied door edge will be accepted.
  - e. Joiner to be 3/8" tie rods, bolted through an extruded spline in the top and bottom rails and 3/16" reinforcing angles.
  - f. Core to be foamed-in-place urethane of 5 pounds per cubic foot density, completely free of CFC and HCFC.
  - g. Hardware is to be factory installed, except for door closers and holders which shall be field installed.
  - h. Doors shall be covered by a ten year guarantee.
5. Exterior Fixed Glass System for Special-Lite Doors. Matching transom panel and side lite panels shall be ordered along with aluminum flush doors. Transoms shall be supplied with a urethane foam core and have framing to match the door rails and stiles.
6. Door Prep for Special-Lite Doors: all doors shall be pre-matched in accordance with templates from the hardware supplier and approved hardware schedule.
- a. For surface applied hardware, doors shall have necessary reinforcement including the attachment of Rivnut blind fasteners (Grip-serts) for bolting.
  - b. Hardware is to be factory installed, except for door closers and holders which are field installed.
7. Door Packaging for Special-Lite Doors: doors shall be packaged in individual corrugated cartons. Doors shall be "floated" within cartons, with no portion of door or attached hardware to be in contact with the outer corrugated shell.
8. Transoms and Side Lites for Special-Lite Doors: matching transom panels and side lite panels shall be ordered along with aluminum flush doors when applicable. Transoms shall be supplied with a urethane foam core and have framing to match the door rails and stiles. Transom and Side Lites gauge shall be the same as #10 (door frames) in that installation.

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9. Steel Doors with Glass: shall have a minimum of 4 1/2" stiles. Rail shall have a minimum of 6", top and bottom rails shall be 8" minimum, excluding glass stops. Coordinate midrail locations with push bars and exit devices. All exit devices and push bars on doors with greater than 1/2" glass shall be located behind midrail. **Steel doors shall be used only with the prior written authorization of UNH Hardware Services.**
10. Steel frames: shall be a minimum 16 gauge, interior and 14 gauge, exterior.
  - a. Hinge plates shall be minimum 3/16" thick drilled and tapped for 12-24 mach. screws. Self tapping screws shall **not** be allowed.
  - b. Steel frames exposed to high humidity, or high acidity areas, such as chicken coops, cow barns, etc. shall be galvanized bearing steel.
  - c. Provide T-anchors at steel frames in masonry.
11. Steel exterior doors shall be a minimum of 16 gauge and metal interior doors shall be a minimum of 18 gauge. Exceptions: steel interior doors shall be 16 gauge for all fire, smoke, stairwell and hallway doors.
  - a. Steel doors exposed to high humidity, or high acidity areas such as chicken coops, cow barns, etc. shall be galvanized bearing steel.
  - b. Exterior doors shall be steel galvanized and insulated.
12. All steel doors and frames shall be factory prepped for locks and hardware as prescribed by UNH Hardware Services.
13. All steel jambs shall be seam welded at factory for all new construction, including new walls in all renovations to existing buildings. Break-down jambs where required shall meet steel jamb requirements and shall be welded in place. **No exceptions.**
14. Note: NFPA 80 requirements: Fire doors in stair enclosures must be resistant to temperature transmission <450 degrees F. at the end of 30 minutes; this requirement is in addition to fire rating of door.
15. Weatherstripping shall be Thermal Brush as manufactured by: SEALEZE CORPORATION. Size and style as required by door application. **No substitutions** will be allowed. The weather-stripping shall not be mounted under the door under **any** circumstances i.e. drop type weather-stripping. **No exceptions will be made.**
16. **The phrase "Aluminum Doors Supplied by Others" does not excuse the Contractor from adhering to these Hardware Standards.**

END OF SECTION