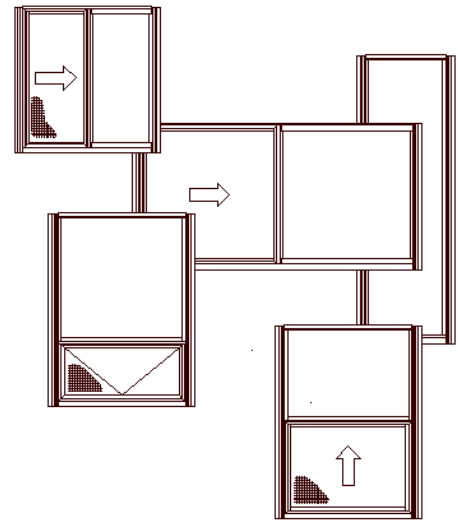


MBS THERMAL FIN METAL BUILDING SYSTEM WINDOWS

The ***First*** Thermal Aluminum Window Designed Specifically For The Metal Building Industry



- Horizontal slider (XO and XOX), Fixed and Project –In Configurations
- Thermal-Break Aluminum Frames
- Self-Framing, Self-Flashing Design for Regular and Architectural Panels
- Self-Flashing Design for Framed Openings - No Extra Trim Req'd
- Insulated Glass - Clear, Tinted, Reflective, Low – E
- Paint and Anodized Finishes
- Stock Sizes for Immediate Shipment – Custom Sizes Also Available



expidoor.com

SIZE FORMULAS

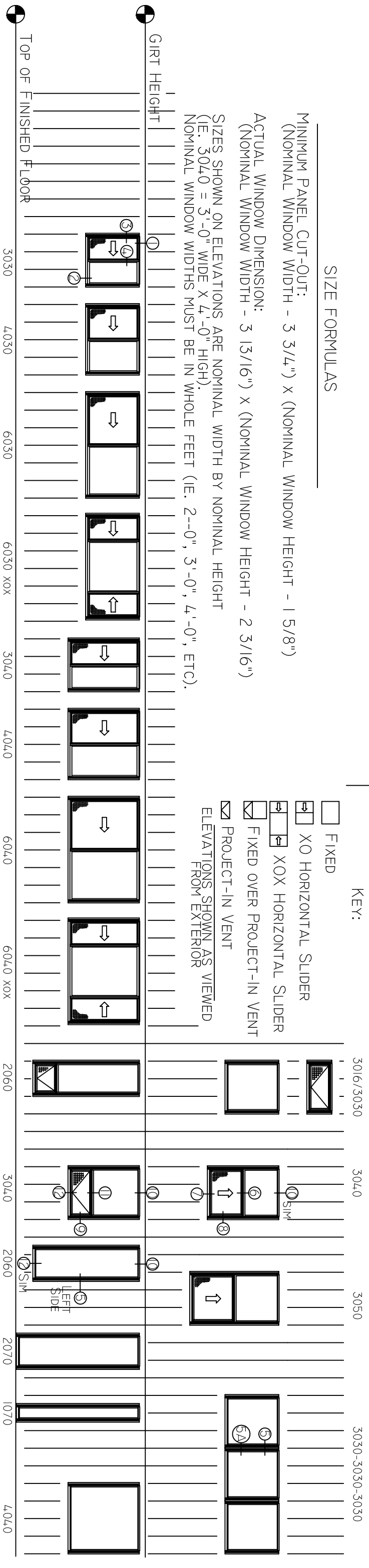
MINIMUM PANEL CUT-OUT:
(NOMINAL WINDOW WIDTH - 3 3/4") X (NOMINAL WINDOW HEIGHT - 1 5/8")

ACTUAL WINDOW DIMENSION:
(NOMINAL WINDOW WIDTH - 3 13/16") X (NOMINAL WINDOW HEIGHT - 2 3/16")

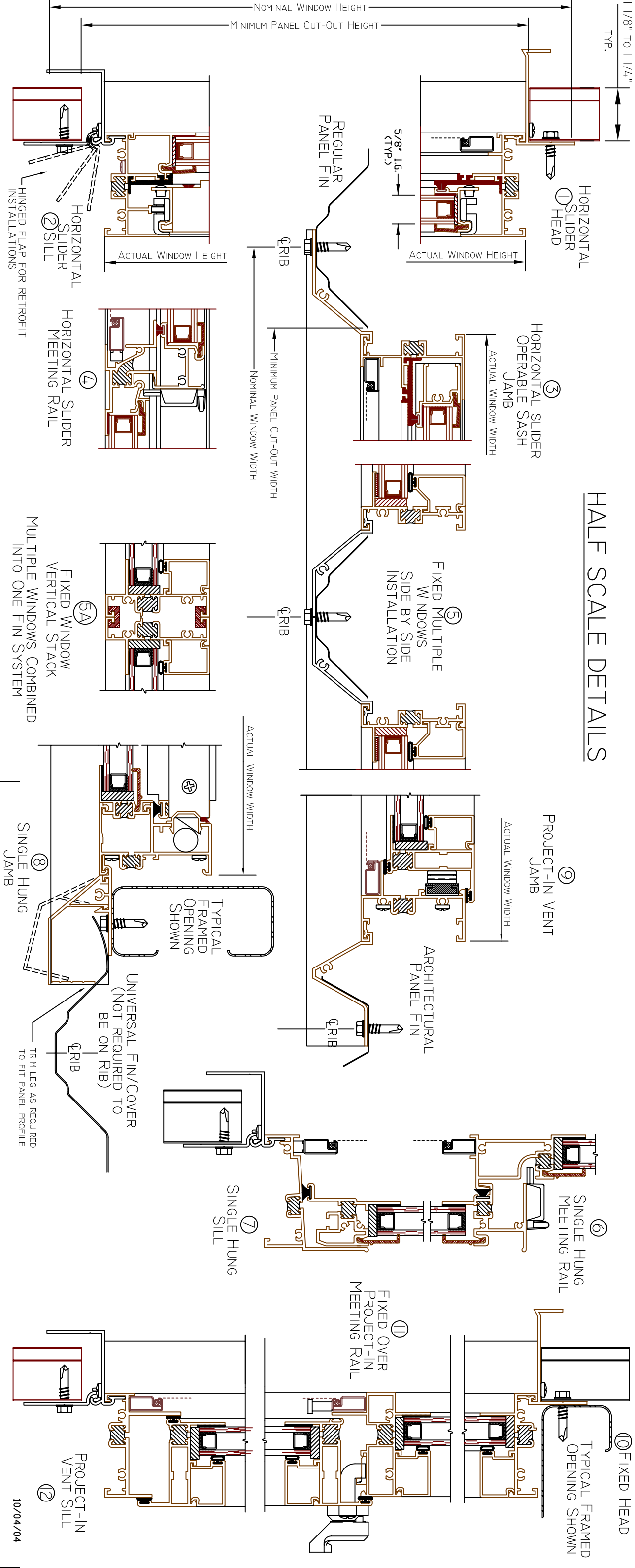
SIZES SHOWN ON ELEVATIONS ARE NOMINAL WIDTH BY NOMINAL HEIGHT
(IE. 3040 = 3'-0" WIDE X 4'-0" HIGH).
NOMINAL WINDOW WIDTHS MUST BE IN WHOLE FEET (IE. 2'-0", 3'-0", 4'-0", ETC).

KEY:

- FIXED
 - XO HORIZONTAL SLIDER
 - XOX HORIZONTAL SLIDER
 - FIXED OVER PROJECT-IN VENT
 - PROJECT-IN VENT
- ELEVATIONS SHOWN AS VIEWED FROM EXTERIOR



HALF SCALE DETAILS



SPECIFICATION

MBS THERMAL FIN

The WinTech Series 2255 **MBS (Metal Building System) THERMAL FIN** is a 2 1/4" window family designed specifically for metal siding applications. Horizontal slider, single hung, project-in hopper and fixed window configurations are available with a poured-in-place polyurethane thermal barrier. The windows and the head/sill channel and jamb fins can be installed as the metal siding is erected or retrofitted by cutting holes in the siding at a later time. Extremely narrow metal site lines maximize the glass day lite opening and sash ventilation. Jamb fins are available for regular and architectural metal siding panels. A universal fin allows installation off the rib of the metal panel. Windows may also be used without the head/sill channels and jamb fins for traditional installations in masonry or wood/metal stud conditions.

SECTION 08520 ALUMINUM WINDOWS

PART 1 - GENERAL

1.01 Work Included

- A. Furnish and install aluminum windows complete with hardware, fins, and related components as shown on drawings and/or specified in this section.
- B. All windows shall be WinTech Series 2255 **MBS THERMAL FIN** (state configuration: horizontal slider, single hung/single tilt sash, fixed, fixed over project-in hopper vent or single project-in hopper vent).
- C. Glass and Glazing: All windows shall be factory glazed.

1.02 Testing and Performance Requirements

- A. Air, water and structural test unit sizes and configurations shall be in general conformance to requirements set forth in ANSI/AAMA 101-93.
- B. Windows shall confirm to HS-C25 (horizontal slider), H-C30 (single hung), P-C30 (project-in vent) and F-HC40 (fixed).

1.03 Quality Assurance

- A. Provide test reports from AAMA accredited laboratory certifying the performance as specified in 1.02.
- B. Test reports shall be accompanied by the window manufacturer's letter of certification stating that the tested window meets or exceeds the referenced criteria for the appropriate ANSI/AAMA 101-93 window type.

1.04 Submittals

- A. Contractor shall submit section details, finish samples, test reports and warranties as required.

1.05 Warranty

- A. The window manufacturer shall assume full responsibility and warrant for one (1) year (five [5] years for insulated glass seal only) the satisfactory performance of the factory fabricated window unit including sash operation, hardware, and glazing as it relates to air, water and structural adequacy.
- B. The metal building erector shall be responsible for the window and fin anchorage, flashing and sealing.

PART 2 - PRODUCTS

2.01 Materials

- A. Extruded aluminum shall be 6063-T5 alloy and temper.
- B. Hardware
 1. Horizontal slider/single hung shall have a painted zinc die cast sweep latch which mechanically retains the frame meeting rail. Spring loaded latches

shall not be permitted.

2. Projected vents shall have a cam handle with a concealed pawl painted to match the window finish and a steel strike.
3. Projected windows shall have 4 bar stainless steel operating arms. Aluminum or carbon steel arms shall not be permitted.
4. Horizontal slider roller system shall consist of an injection molded nylon housing with brass tire on a stainless steel axle. Nylon or one piece brass roller/axle assemblies shall not be permitted.
5. Single hung sash shall be balanced with spiral type balances which are field adjustable.

C. Weatherstrip

1. Horizontal slider/single hung shall be weatherstripped with medium density polypropylene pile with mylar fin.
2. Projected vent weatherstripping shall be a co-extruded Santoprene bulb with a polypropylene backer or equal.

D. Glass and Glazing

1. Glass shall be SSB (2mm) or DSB (3mm) clear, tinted, obscure and/or tempered as required.
2. Insulated glass shall have an "A" level rating with a five (5) year warranty against seal failure. Glass sealant shall be DuraSeal hot melt insulating glass edge seal system. Glass unit overall thickness shall not be less than 5/8". 1" also available for fixed and projected lights.

E. Thermal Barrier

1. All aluminum exposed to the exterior shall be thermally separated from aluminum on the interior by either a poured-in-place polyurethane thermal barrier or a rigid PVC extrusion.
2. Thermal short circuits shall not be permitted in the design of the perimeter frame, sash and glazing components.

2.02 Fabrication

A. General

1. Window head, sill and jamb extrusions shall have specially designed aluminum raceways to accept the head/sill channel and the jamb fins. Sheet metal screws at each corner shall keep the channel and fins from sliding once installed in the window and to maintain corner alignment.
2. Head/sill channel and jamb fin system shall permit window installation either as the metal siding is being erected or as a retrofit (cutting a hole after the fact in the siding).
3. Depth of frame shall not be less than 2 1/4". Horizontal slider/single hung sash shall not be less than 7/8", and projected vents shall not be less than 1 7/8" in depth.
4. All aluminum window frame and sash extrusions shall have a minimum wall thickness of .055".
5. The head/sill channels and the jamb fins shall have a minimum wall thickness of .062".

- B. Frame components shall be square cut and mechanically fastened with zinc plated sheet metal screws.

C. Sash

1. Horizontal slider sash shall be square cut and mechanically fastened with zinc plated sheet metal screws. A specially designed pull rail shall be recessed into the sash lock rail. No pull of any sort shall protrude beyond the interior plane of the window. Rollers shall ride on a raised extruded track.
2. Projected vents and frame meeting rail shall be hollow extrusions. Vents shall be mitered and mechanically staked with two solid aluminum keys per corner. Each vent shall have two (2) rows of a co-extruded Santoprene bulb on a polypropylene backer.

D. Screens

1. Frames shall be painted, roll-form aluminum. Mesh shall be 18x16 fiberglass.
2. Horizontal Slider/Single Hung: Totally concealed leaf springs shall secure the screen. Two (2) nylon pulls per screen shall be provided to aid in screen removal and installation. The screen shall be retained entirely within the 2 1/4" frame dimension and not protrude beyond the exterior of the window plane.
3. Projected: Spring loaded plungers attached to the insect screen shall make for easy removal of the screen from the building interior.

E. Glazing

1. All glass shall be inside glazed and have a minimum glazing rabbet of 3/8" (horizontal slider/single hung) and 1/2" (fixed/projected).
2. Horizontal slider/single hung glass sizes (fixed and operating) shall be the same size to simplify field reglazing and equal the glass day lite openings.
3. Glass lites shall be glazed with a neutral cure liquid silicone back bedding compound. Film thickness shall not be less than .040".
5. Glazing beads shall be rigid extruded PVC (horizontal slider/single hung) and snap-in aluminum (fixed/projected). Color to match the aluminum finish.

- F. Finish all exposed areas of aluminum windows and fins with bronze baked enamel which meets or exceeds AAMA 603.8. Bronze and white paint are standard. Other custom paint colors and anodized finishes are also available.

PART 3 - EXECUTION

3.01 Plumb and align windows.

Adequately anchor to metal siding to maintain position permanently when subjected to normal thermal and building movement and specified wind Loads.

3.02 Adjust windows for proper operation after installation.

3.03 Furnish and apply sealants to provide a weather tight installation at all joints and intersections of the metal siding, fins and windows. Wipe off excess material and leave all exposed surfaces and joints clean and smooth.