**Bid Proposal: Louver model 104-45-D**

All aluminum extrusion components are made from 6063-T5 alloy with a mill finish. For a different surface finish, refer to the Louver Finishes and Accessories document.

1. **Blades:**
   1. Cométal model 104-45-D: Extruded aluminum blades with a maximum thickness of 2.06 mm (0.081”) and an optimized profile.
   2. Blade angle: 45 degrees.
   3. Equipped with a gutter-shaped embossing allowing water to be collected and drained from the sides to the jambs
   4. Two (2) screw grooves in the blade profile provide maximum rigidity to the assembly.
2. **Upper, lower, and side frames:**
   1. Frames are made from extruded aluminum.
   2. Frames have a depth of 101.6 mm (4").

*Com*é*tal 4-L-D border model*: 2.06 mm (0.081") minimum thickness, fitted with a gutter to allow water to drip down to the bottom of the louver.

**OR**

*Com*é*tal 4-U-D insertion model*: 1.83 mm (0.072") minimum thickness, fitted with a gutter to allow water to drip down to the bottom of the louver.

* 1. Concealed structures:

Extruded aluminum angles support the louver at intervals of no more than 1219 mm (48") center to center. For sections shorter than 2438 mm (96”), support angles measure 38.1 x 38.1 x 4.7 mm   
(1½ x 1½ x 3/16”); for sections longer than 2438 mm (96”), support angles measure 50.8 x 50.8 x 4.7 mm (2 x 2 x 3/16"). Each blade is attached to the support structure by a rigid aluminum bracket.

* 1. Visible vertical mullions:

Mullions are composed of two interlocking Cométal 4-U-D frames. Grooved frames interlock perfectly without additional hardware. Mullion arrangement can be changed to achieve the desired visual effect specified in the plan.

**OR**

* 1. Concealed vertical mullions:

Extruded aluminum angles with the same dimensions as those of concealed structures are positioned at section ends to create the visual effect of continuous blades. Each blade is attached to the support structure by a rigid aluminum bracket.

1. **Assembly:**
   1. All aluminum components are assembled mechanically using screws. Welding must be avoided to maintain the mechanical properties of the aluminum, and the quality of the anodization.
2. **Performance:**
   1. Louvers will have a 51.78 % free air percentage based on a 48 x 48" (1219 x 1219 mm) louver.
   2. The beginning point of water penetration at 0.010 oz/ft2 (3.05 g/m2) is 1115 fpm (5.66 m/s) free area velocity.
   3. Free area intake velocity @ pressure drop 0.15 in. H2O (3.81 mm H2O) = 990 fpm (5.03 m/s)
3. **Installation:**
   1. Louvers must be installed squarely, according to the manufacturer's recommendations.