



MIAMI-DADE APPROVED DRAINABLE LOUVER PENTHOUSE

Visible Mullion Louver Type	K6746PD
Material	Extruded Aluminum (Alloy 6063-T5)
Stationary Blade	0.081 in. (2.06 mm)
Frame	0.125 in. (3.18 mm)
Louver Depth	6 in. (152.4 mm)
Free Area – 4 ft. x 4 ft. Unit	9.41 sq. ft. (0.88 m ²)
Percent Free Area	58.8%
Free Area Velocity at Beginning Point of Water Penetration – 0.01 oz H₂O/sq. ft. Free Area	1,077 fpm (5.47 m/s)
Air Volume Flow Rate at Beginning Point of Water Penetration – 4 ft. x 4 ft. Unit	10,135 cfm (4.78 m ³ /s)
Pressure Drop at Beginning Point of Water Penetration	0.15 in. H ₂ O (0.037 kPa)
Maximum Qualified Wind Design Load	+/- 115 PSF (5.5 kPa)



**Performance data above is based on Louver Type K6746.
Specific performance data for Louver Penthouse K6746PD can be found on page 2.*

RECOMMENDED SPECIFICATION

GENERAL

Furnish and install where indicated on plans or described in schedules drainable Louver Penthouse K6746PD as designed and manufactured by The AiroLite Company LLC, Schofield, Wisconsin. Louver penthouses shall be Florida Building Code approved for use in the High Velocity Hurricane Zone and Miami-Dade approved for installations where the enclosed space is designed to drain or otherwise accommodate water penetration (wet rooms). Louver penthouses shall be furnished with bird screen, insect screen, sill pans, supports, installation hardware and finishes as specified and as required for a complete installation.

SUBMITTALS

Manufacturer shall submit shop drawings incorporating key plans, elevations, sections and details showing profiles, angles and spacing of louver penthouse blades and frames; unit dimensions related to construction; and, anchorage details and locations. For each type of product specified, submit free area, air performance, and water penetration ratings based on the performance of Louver Type K6746. Include Miami-Dade Notice of Acceptance to demonstrate compliance with applicable code. Provide samples of manufacturer's finish and color charts showing the full range of colors available.

PRODUCTS

Louver penthouses shall be drainable Louver Penthouse K6746PD with visible mullions. Louver penthouses shall also be Florida Building Code and Miami-Dade Approved. Louver penthouses shall be 6-inches (152.4 mm) deep and assembled entirely from extruded aluminum components. Blades and frames shall be 0.081-inch (2 mm) thick aluminum, alloy 6063-T5. Blades shall be drainable and spaced approximately 4-inches on center.

STRUCTURAL DESIGN CRITERIA

Louver penthouses shall be certified to comply with the requirement of Miami-Dade protocols TAS-201, TAS-202 and TAS-203 and Miami-Dade approved for building envelope protection for single unit sizes up to a max throat size of 84 inches wide x 108 inches long and a max height of 84 inches, for wet room protection. Louver penthouses shall be tested for wind forces up to 115 psf. Louver penthouses must be secured to a structural substrate in accordance with Dade County Product Approval Drawings. In addition, the structural substrate must be designed to accommodate the point loads transferred by the louver penthouses when subject to the design wind loads.

PERFORMANCE RATINGS

FREE AREA:	9.41 Square Feet (0.88 m ²)
MINIMUM FREE AREA VELOCITY at Beginning Point of Water Penetration:	1,077 fpm (5.47 m/s)
MINIMUM AIR VOLUME FLOW RATE at Beginning Point of Water Penetration:	10,135 cfm (4.78 m ³ /s)
MAXIMUM STATIC PRESSURE at Beginning Point of Water Penetration:	0.15 in. H ₂ O (0.037 kPa)

See page 8 for complete finish options

LOUVER PENTHOUSE K6746PD PRODUCT DESCRIPTION

Airolite Louver Penthouse K6746PD is a 6-inch (152.4 mm) deep, drainable louver that is Florida Building Code approved for use in the High Velocity Hurricane Zone and Miami-Dade approved for installations where the enclosed space is designed to drain or otherwise accommodate water penetration (wet rooms). This product complies with Dade County protocols TAS-201, *Large and Small Missile Impact*; TAS-202, *Criteria for Testing Impact and Not Impact Resistant Building Envelope Components Using Static Uniform Air Pressure*; and, TAS-203, *Criteria for Testing Product Subject to Cyclic Wind Pressure*. Drainable louver penthouses are characterized by gutters incorporated in the front edge of each blade and each jamb frame to prevent water droplets from cascading from blade to blade and from becoming entrained in the intake air flow. Consequently, Louver Penthouse K6746PD is rated to achieve high volume air flow rates yet provides resistance to water penetration. Louver Penthouse K6746PD is a highly effective louver penthouse that enable designers to select and specify this product with confidence. Please contact your local Airolite representative or the factory for assistance with the layout and design of support systems when required.

PERFORMANCE DATA

Throat W x L	Recommended Louver Height	Louver Throat Area (sq. ft.)	Intake CFM / Pressure Drop Throat Velocity			Exhaust CFM / Pressure Drop Throat Velocity			
			400 cfm 0.067	600 cfm 0.152	800 cfm 0.268	400 cfm 0.030	600 cfm 0.068	800 cfm 0.120	1000cfm 0.187
12 x 12	12	1.21	400	600	800	400	600	800	1000
12 x 24	16	3.24	800	1200	1600	800	1200	1600	2000
24 x 24	16	4.49	1600	2400	3200	1600	2400	3200	4000
24 x 48	20	9.44	3200	4800	6400	3200	4800	6400	8000
36 x 36	20	9.73	3600	5400	6400	3600	5400	6400	9000
36 x 72	24	18.78	7200	10,800	14,400	7200	10,800	14,400	18,000
48 x 48	24	16.16	6400	9600	12,800	6400	9600	12,800	16,000
48 x 96	32	34.89	14,400	21,600	28,800	14,400	21,600	28,800	36,000
60 x 60	28	25.16	10,000	15,000	20,000	10,000	15,000	20,000	25,000
60 x 108	36	47.60	18,000	27,000	36,000	18,000	27,000	36,000	45,000
72 x 72	32	36.10	14,400	21,600	28,800	14,400	21,600	28,800	36,000
72 x 96	40	53.89	19,200	28,800	38,400	19,200	28,800	38,400	48,000
84 x 84	40	52.33	19,600	29,400	39,200	19,600	29,400	39,200	49,000
84 x 96	40	56.51	22,400	33,600	44,800	22,400	33,600	44,800	56,000
84 x 108	44	67.78	25,200	37,800	50,400	25,200	37,800	50,400	63,000

Performance data shown herein is a result of in-house airflow resistance testing procedures in an AMCA Accredited Laboratory. The static pressure drops shown at given throat velocities include the pressure drop through the throat of the product as well as through the louvers themselves. The recommended height shown herein allows for equal to or greater than effective louver free area to that of the penthouse inside throat area. Increasing the product height will have minimal affect on the static pressure drop. The static pressure drops shown do not include the effects of bird screen, insect screen or any other appurtenance.

Minimum Throat Size:

12 in. (30 cm) W x 12 in. (30 cm) H

Maximum Throat Size:

84 in. (213 cm) W x 108 in. (274 cm) H

Minimum Louver Height:

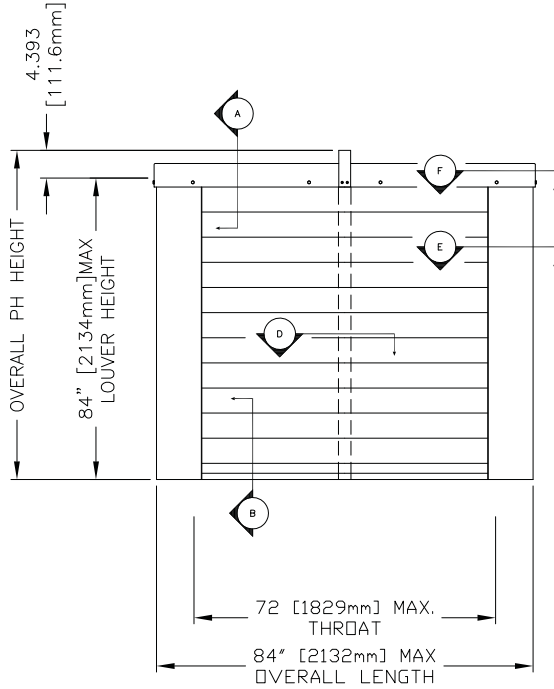
12 in. (30 cm)

Maximum Louver Height:

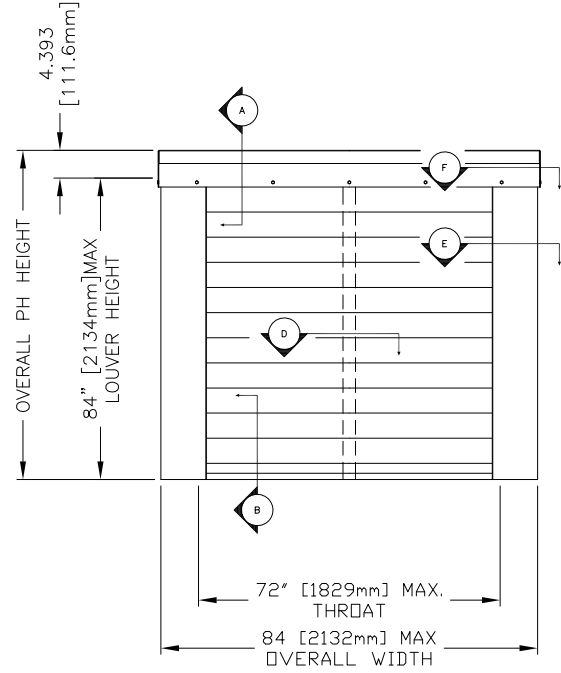
84 in. (213 cm)

LOUVER PENTHOUSE K6746PD PRODUCT DETAILS

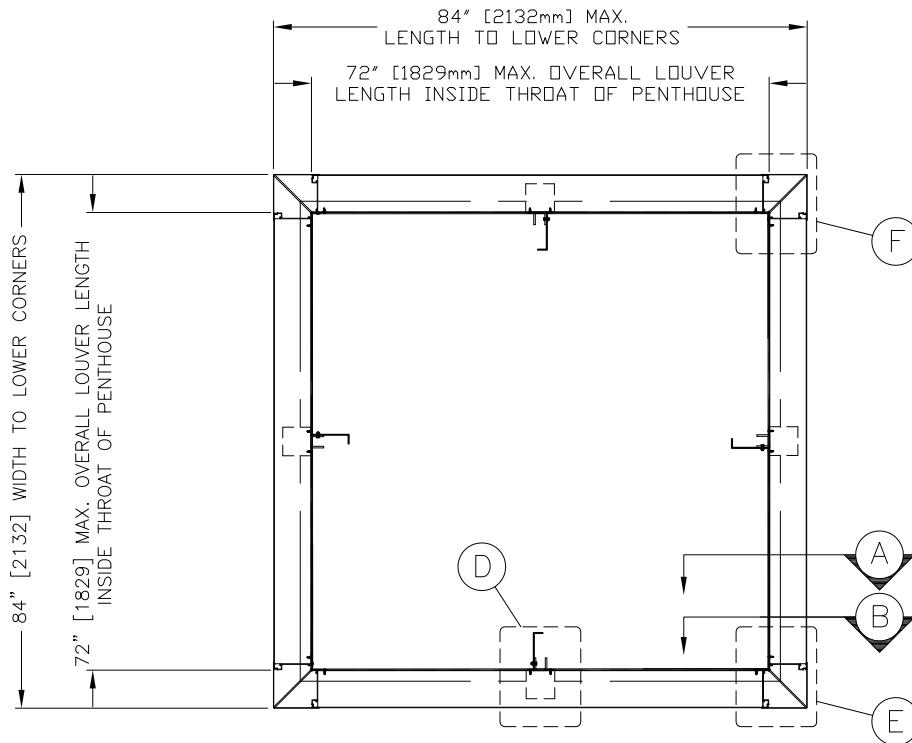
SINGLE SECTION



SINGLE SECTION FRONT VIEW



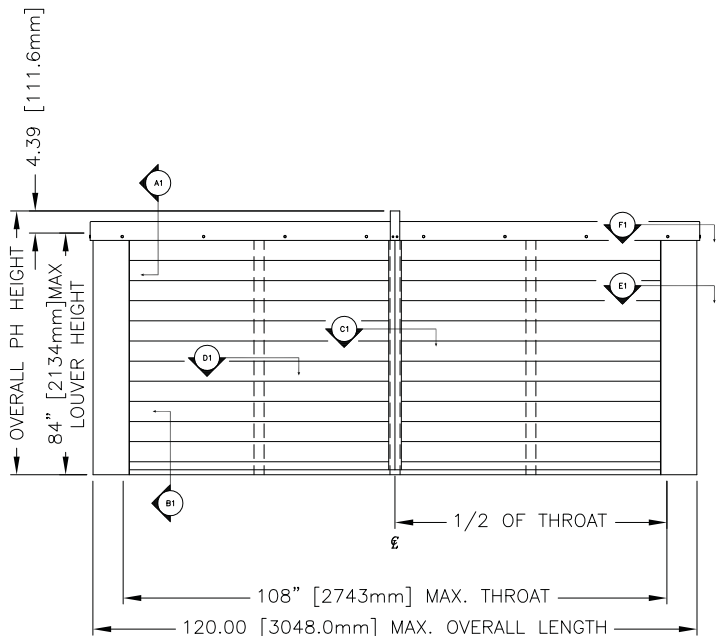
SINGLE SECTION SIDE VIEW



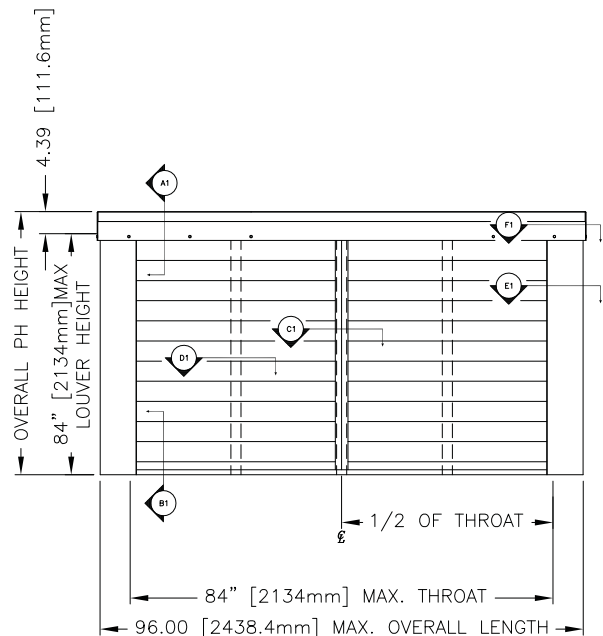
SINGLE SECTION PLAN VIEW W/O HOOD
(UP TO 72" [1829mm] X 72" [1829mm] X 68" [1727mm] TALL)

LOUVER PENTHOUSE K6746PD PRODUCT DETAILS

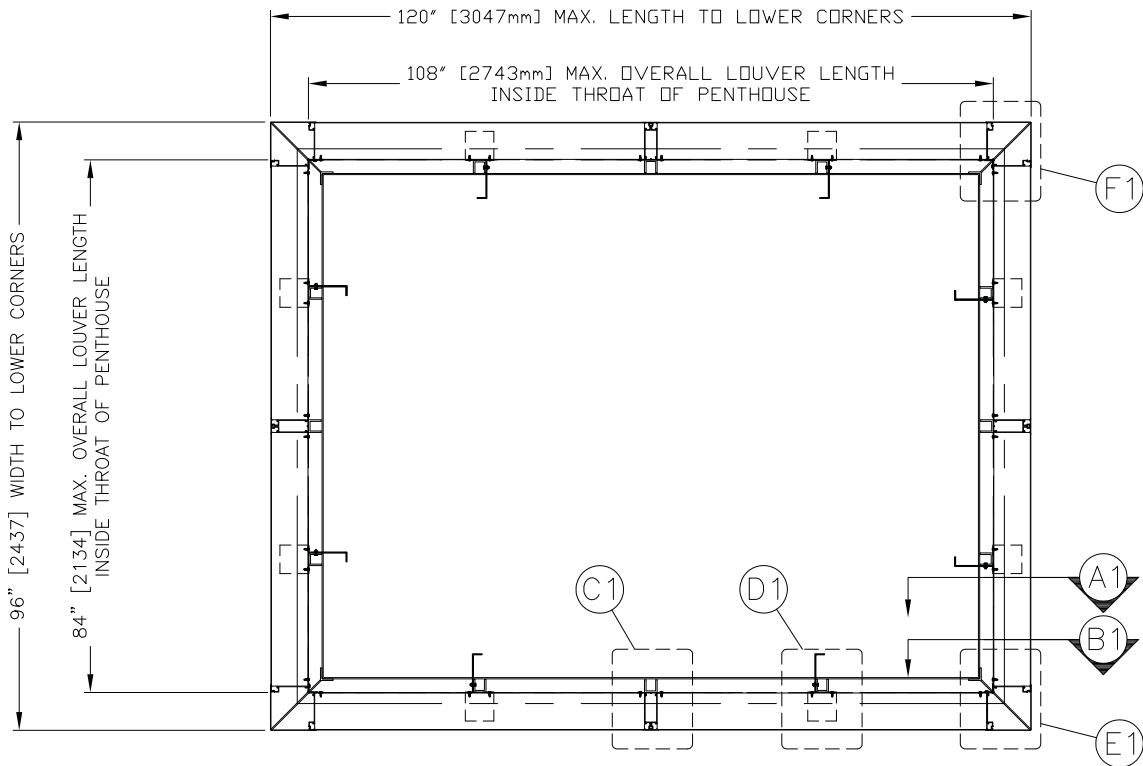
TWO SECTION



TWO SECTION FRONT VIEW

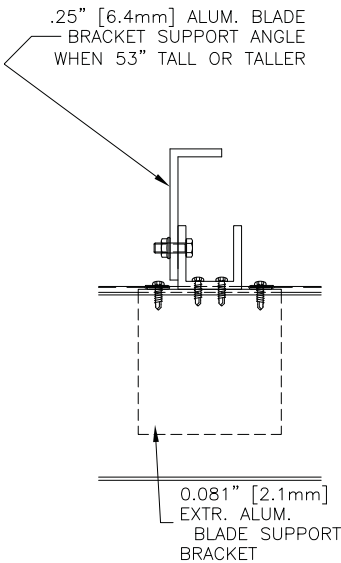
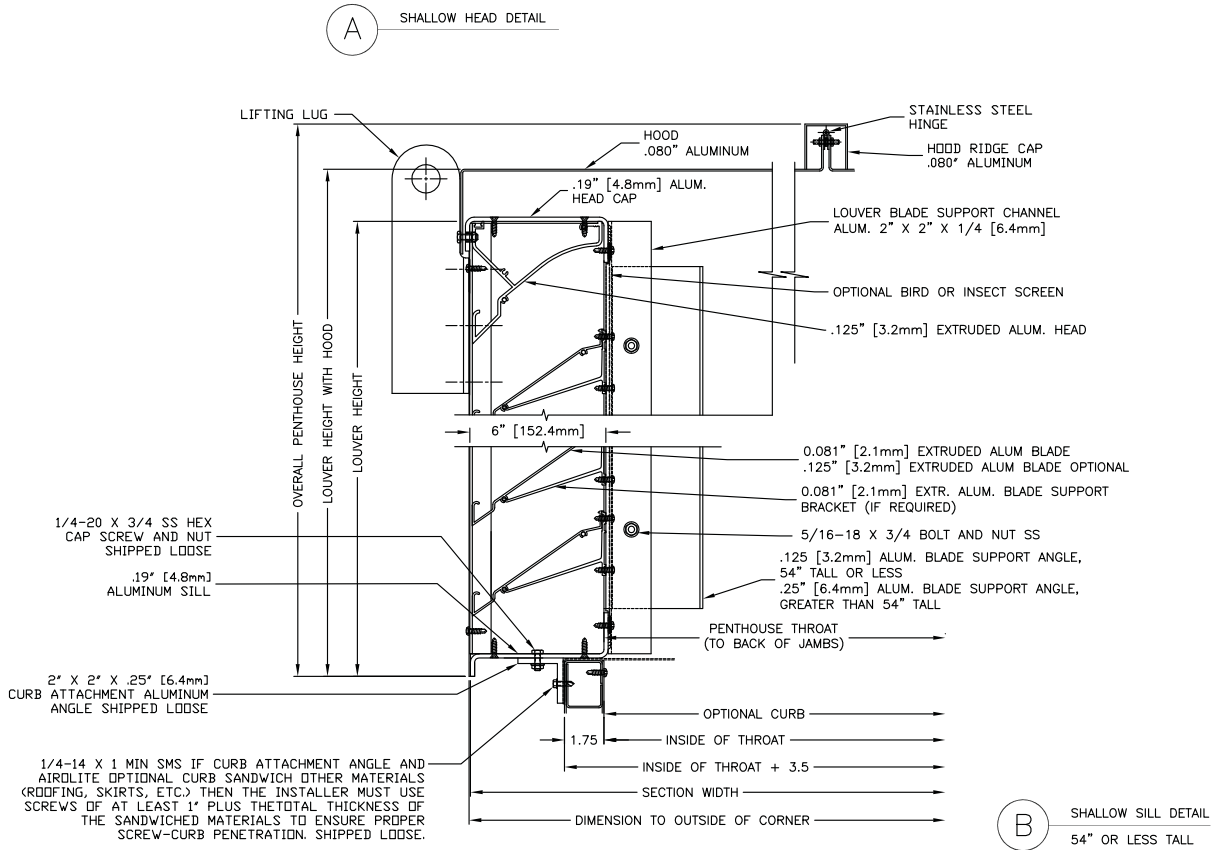


TWO SECTION SIDE VIEW

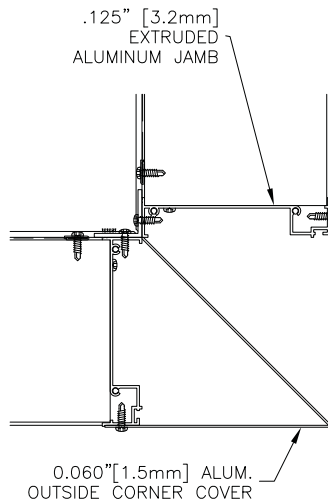


TWO SECTION PLAN VIEW W/O HOOD
 (LARGER THAN 72" [1829mm] X 72" [1829mm] X 68" [1727mm] TALL,
 MAXIMUM SIZE 84" [2134mm] X 108" [2743mm] X 84" [2134mm] TALL)

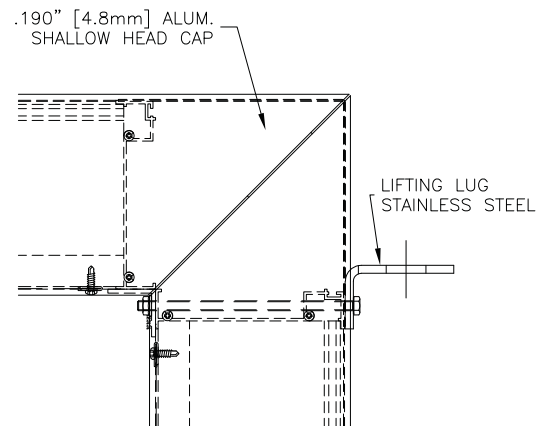
LOUVER PENTHOUSE K6746PD PRODUCT DETAILS



D SHALLOW SILL SUPPORT DETAIL

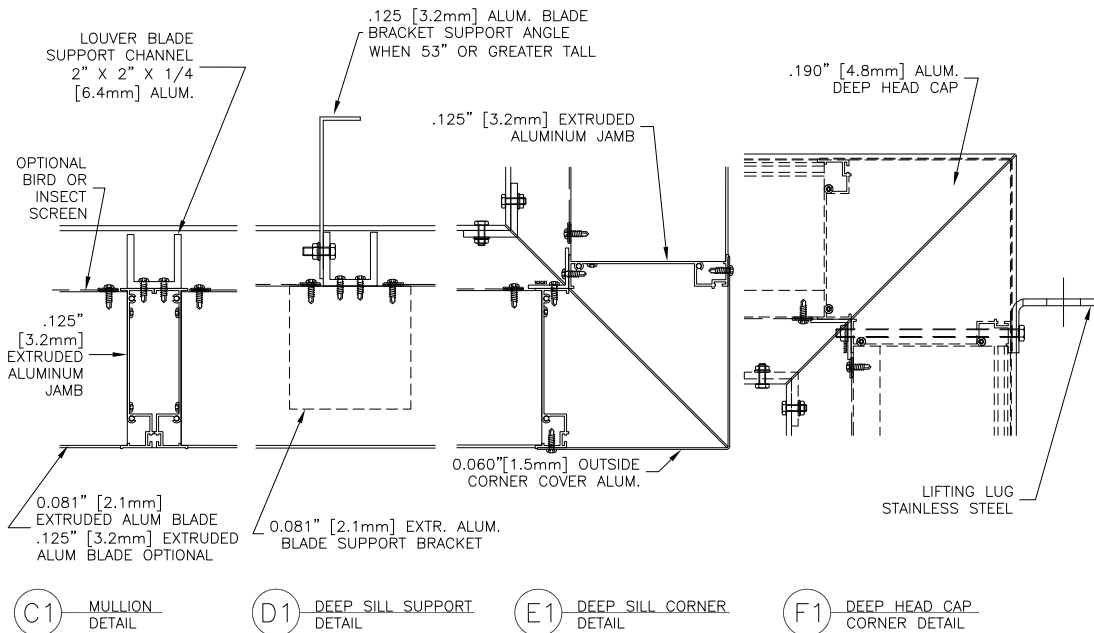
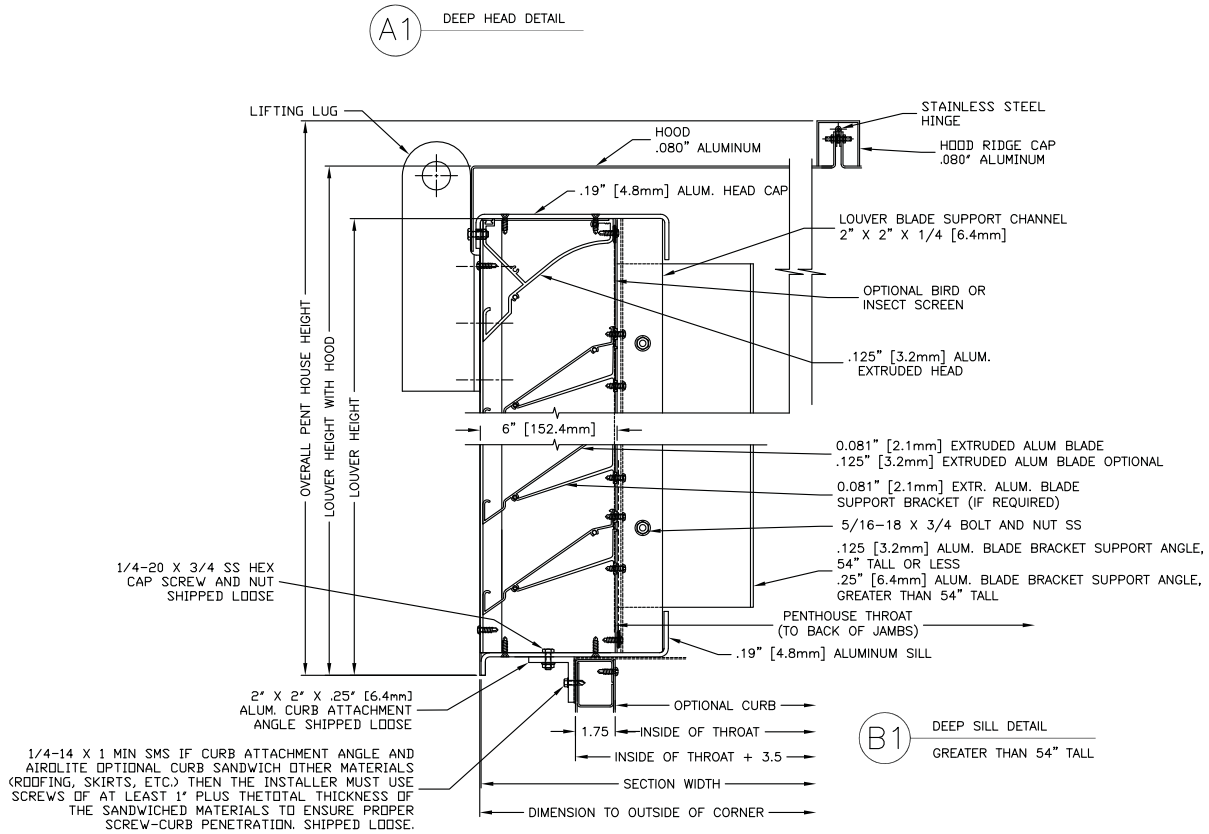


E SHALLOW SILL CORNER DETAIL



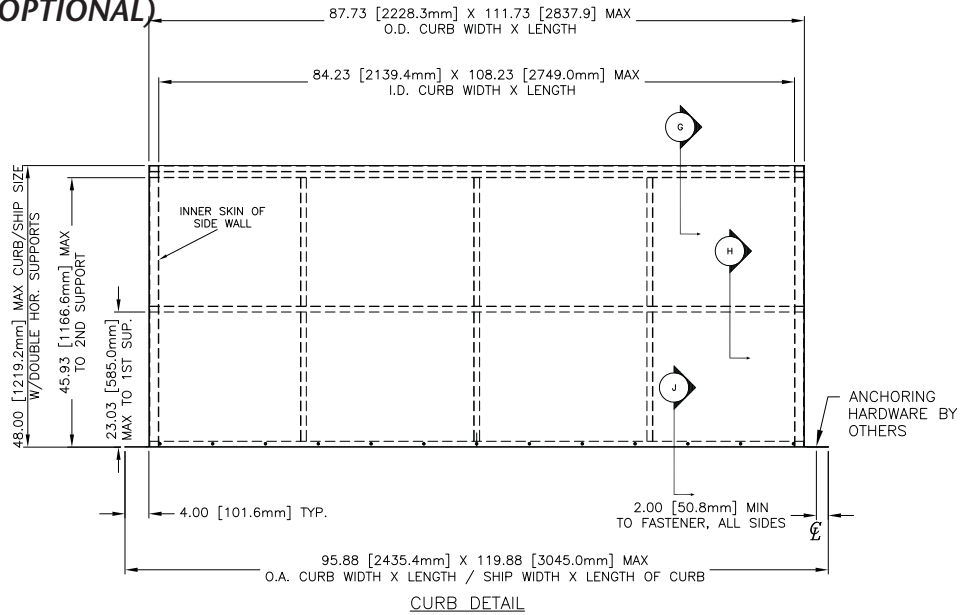
F SHALLOW HEAD CAP CORNER DETAIL

LOUVER PENTHOUSE K6746PD PRODUCT DETAILS

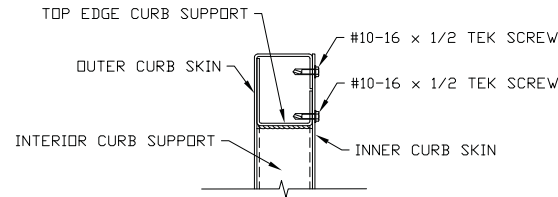


LOUVER PENTHOUSE K6746PD PRODUCT DETAILS

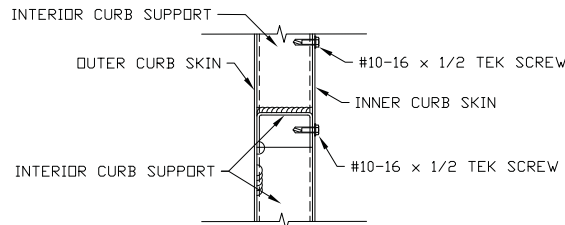
CURB DETAILS (OPTIONAL)



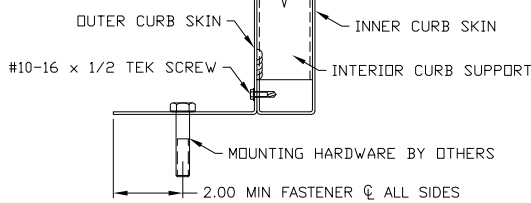
G CURB DETAILS TOP



H CURB DETAILS MIDDLE



J CURB DETAILS BOTTOM



NOTES:

1. 3/8-16 X 3 MIN PLATED STEEL EXPANDABLE ANCHOR 12" MAX CENTERS, 2.5" MIN CONCRETE ENGAGEMENT, 3.25 MIN TO CONCRETE EDGE.
2. #12-14 X 1 MIN SMS, PLATED STEEL 4.5" MAX CENTERS W/ 3/ CORNER, 1/4" MIN VERTICAL THREAD ENGAGEMENT INTO STEEL, 2" MIN TO STEEL EDGE.
3. 1/2 X 3 MIN PLATED STEEL LAG BOLT 8" MAX CENTERS, 2.93" MIN WOOD ENGAGEMENT, 2" MIN TO WOOD EDGE.
4. ALL WOOD SUBSTRATE SHALL BE G = 0.55 DENSITY OR BETTER.
5. ALL METAL STUD SUBSTRATE SHALL BE MIN. 16 GA. F_y = 50 KSI.
6. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 1/4" THICK F_y = 36 KSI.
7. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
8. CONCRETE MASONRY SHALL BE ASTM C90, TYPE II, MIN 2000 PSI GROUT-FILLED.

MOUNTING HARDWARE NOT BY AIROLITE
SEE NOTES 1 THROUGH 3 BELOW

