



EXTRUDED ALUMINUM LOUVERED PENTHOUSES BOX (POST) CORNERS MODEL: 1600PHB

Nailor Model 1600PHB Extruded Aluminum Box Corner Penthouses offer an aesthetically appealing option of concealing mechanical rooftop equipment or protecting air intake/relief openings from outside elements. A variety of finishes, construction options and accessories are available to meet almost any requirement.

STANDARD CONSTRUCTION:

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, see note 1 below.

BLADE SUPPORT 1 1/2" x 2" (38 x 51) on max. 60" (1524) centers.

ANGLES:

ROOF: Alum. sheet .080" (2.03) nom. wall thickness.

ROOF SUPPORT 1 1/2" x 2" x 1/4" (38 x 51 x 6) (as required by size of unit).

BIRD SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened alum. bird screen.

OPTIONS:

- BSSS** Type 304 S.S. Bird Screen.
- BSN** No Bird Screen.
- ISA** Aluminum Insect Screen.
- ISSS** Type 304 S.S. Insect Screen.
- IR1** 1" (25) Fiberglass Roof Insulation.
- BIT** Bitumastic Roof Undercoating.
- Other: _____.

OPTIONAL FINISHES:

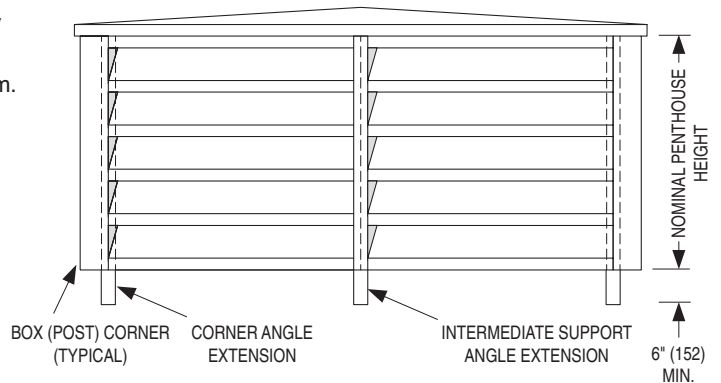
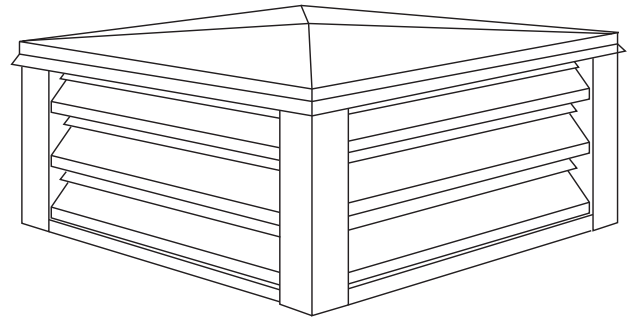
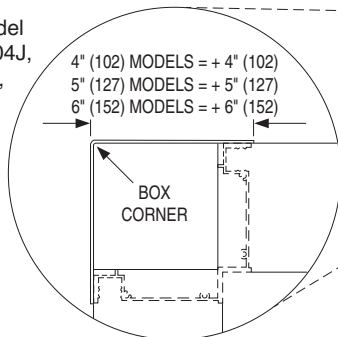
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

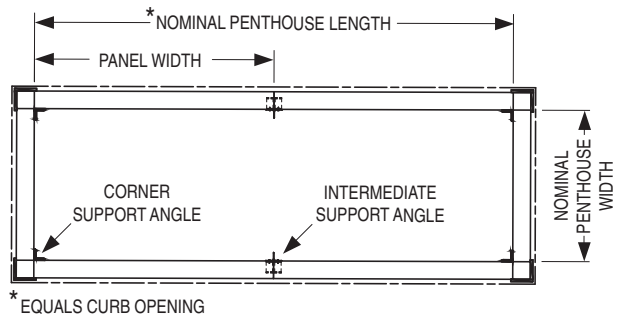
- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

NOTE:

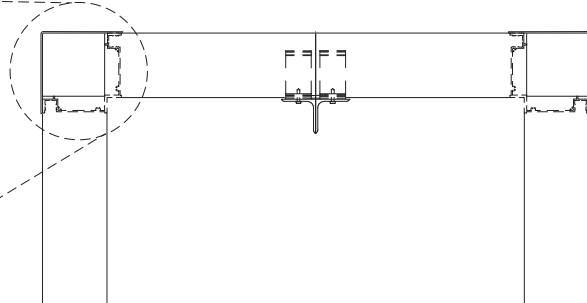
1. The following louver model styles may be used: 1604J, 1604Y, 1604KD, 1604D, 1604DD, 1604DHP, 1605WD, 1606WD, 1606J, 1606KD, 1606D, 1606DHP and 1606DD.



FRONT ELEVATION VIEW



PLAN VIEW



BOX (POST) CORNER DETAIL

SCHEDULE TYPE:				
PROJECT:				
Dimensions are in inches (mm).				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 19 - 15	1600	5 - 11 - 15	1600PHB



**EXTRUDED ALUMINUM LOUVERED PENTHOUSES
MITERED CORNERS
MODEL: 1600PHM**

Nailor Model 1600PHM Extruded Aluminum Mitered Corner Penthouses offer an aesthetically appealing option of concealing mechanical rooftop equipment or protecting air intake/relief openings from outside elements. A variety of finishes, construction options and accessories are available to meet almost any requirement.

STANDARD CONSTRUCTION:

- BLADES:** Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, see note 1 below.
- BLADE SUPPORT ANGLES:** 1 1/2" x 2" (38 x 51) on max. 60" (1524) centers.
- ROOF:** Aluminum sheet .080" (2.03) nominal wall thickness.
- ROOF SUPPORT ANGLES:** 1 1/2" x 2" x 1/4" (38 x 51 x 6) (as required by size of unit).
- BIRD SCREEN:** 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen.

OPTIONS:

- BSSS** Type 304 S.S. Bird Screen.
- BSN** No Bird Screen.
- ISA** Aluminum Insect Screen.
- ISSS** Type 304 S.S. Insect Screen.
- IR1** 1" (25) Fiberglass Roof Insulation.
- BIT** Bitumastic Roof Undercoating.
- Other: _____.

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

NOTES:

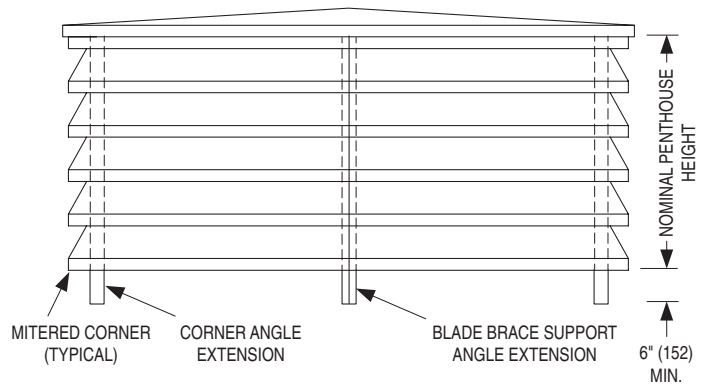
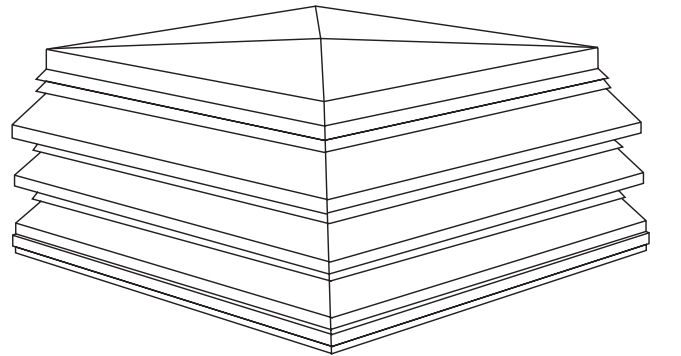
1. The following louver model styles may be used: 1604J, 1604Y, 1604KD, 1606J and 1606KD.
2. Models 1604KD and 1606KD utilize architectural K blades only and are not drainable.

***4" (102) DEEP LOUVER:**

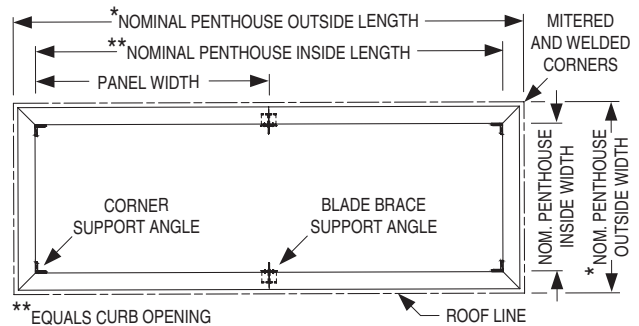
Outside Length/Width = Inside Length/Width + 8" (203).

***6" (152) DEEP LOUVER:**

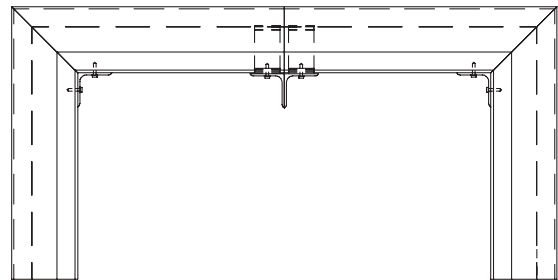
Outside Length/Width = Inside Length/Width + 12" (305).



FRONT ELEVATION VIEW



PLAN VIEW



MITERED CORNER DETAIL

Dimensions are in inches (mm)

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	2 - 19 - 19	1600	5 - 11 - 15	1600PHM


 Slate Blue **LF01**

 Medium Bronze **LF02**

 Sandstone **LF03**

 Light Gray **LF04**

 Charcoal **LF05**

 Bone White **LF06**

 Western Tan **LF07**

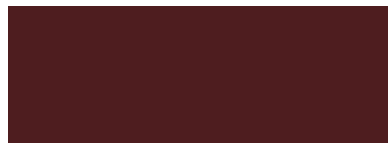
 Architectural Bronze **LF08**

 Regal Blue **LF09**

 Forest Green **LF10**

 Surrey Beige **LF11**

 Royal Brown **LF12**

 Barn Red **LF13**

 Burgundy **LF14**

 Clay **LF15**

 Almond **LF16**

 Coastal White **LF17**

 Vista Green **LF18**

 Black **LF19**

 Gloss Black **LF20**

 Campus Green **LF21**

Nailor offers 21 standard paint colors selected for architectural exterior use which meet or exceed AAMA specifications and performance requirements for color retention, chalk resistance, gloss retention, erosion, corrosion and chemical resistance as well as dry film thickness and hardness. Our state-of-the-art powder coat system provides an environment friendly finishing solution with more uniform coverage and coating thickness. The result is an exceptional finish that better resists scratching, fading and general wear. Additional liquid coat facilities for special requirements complete our ability to provide unmatched beauty and durability for any application.

Custom color matching is also available upon request. Contact your local Nailor representative.

Available Finishes

FINISH TYPE	DESCRIPTION	STANDARD WARRANTY
Fluoropolymer Powder Coat AAMA 2605-Superior Finish (AKA: Powdura® 5000, Corafon® Powder, Interpon® D3000-Fluoromax)	"Ultimate" – A next generation hyper durable powder coating, based on FEVE fluoropolymer resins and ceramic pigmentation that the industry has acknowledged as the foundation for superior performance coatings. They provide a hard surface that is resistant to scratching and scuffing, with superior color and gloss retention, when applied to a variety of exterior architectural applications. This technology represents the "ultimate" in environmentally friendly finishes, with Zero-VOC emissions. A new alternative to traditional 70% Kynar 500® / Hylar 500® PVDF fluoropolymer liquid coatings.	10 years (Consult Nailor for availability of extended warranty)
High Performance Powder Coat AAMA 2604 – High Performance Finish (AKA: Powdura® 4000, Envirocron® Ultra Durable Powder, Dynadure™ 400, Interpon® D2000)	"Better" – A high performance polyester powder coating, based on "super durable" resins that utilize infrared reflective pigments, which provides excellent resistance to outdoor weathering. A harder and more environmentally friendly coating than other liquid paint counterparts and with Zero-VOC emissions. A good alternative to 50% Kynar 500® / Hylar 5000® liquid coatings.	5 years
Durable Powder Coat AAMA 2603 – Pigmented Organic Coatings (AKA: Powdura® 3000, Envirocron® Durable Powder, Dynadure™ 300, Interpon® D1000)	"Good" – A durable powder coat based on thermosetting polyester resin technology. Provides a good economical combination of physical and chemical resistance properties. Environmentally superior to liquid spray paints and Zero – VOC emissions.	1 year
Clear Anodize 215-R1 AA-M10C22A41 (0.7 mil. min.)	Architectural Class I. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for severely corrosive and abrasive atmospheric exposure.	5 years
Clear Anodize 204-R1 AA-M10C22A31 (0.4 – 0.7 mil.)	Architectural Class II. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for normal weather exposure.	1 year
Color Anodize AA-M10C22A44 (0.7 mil. min.)	Architectural Class I. "Two-step" aluminum coating process. Following a standard anodizing procedure, a second electrolytic process deposits colored metallic pigments which penetrate the aluminum oxide pores, producing a corrosion resistant, colorfast finish. Available in light, medium, dark bronze and black.	5 years
Prime Coat	Prime coat provides a stable base for painting of louvers in the field. Surface pretreatment includes degreasing and a chemical cleaning before an epoxy prime coat is applied. Finish coat should be field applied as soon as possible for best adhesion, after a thorough cleaning for dust etc. that can contaminate the final finish and cause premature flaking or peeling.	N/A

*Paint finish warranties are not applicable to steel products.
 Powdura® is a registered trademark of The Sherwin-Williams Company.
 Corafon® and Envirocron® are registered trademarks of PPG Industries Ohio, Inc.
 Interpon® is a registered trademark of Akzo Nobel Powder Coatings Ltd.
 Kynar 500® is a registered trademark of Arkema, Inc.
 Hylar 5000® is a registered trademark of Solvay Solexis, Inc.*

I. General

1. The following guidelines provide basic assembly and installation instructions for standard Nailor Extruded Aluminum Penthouses. Nailor penthouses are designed to resist a 25 psf wind load.
2. Consult with the Engineer of record for the size, type and quantity of anchors required to secure the penthouse to the surrounding condition.
3. Refer to job specific submittal drawings for additional details when provided.
4. Carefully lift penthouse sections by their frames or support members using multiple lifting points if necessary to avoid distortion, racking or damage.
WARNING: Do not apply excessive force to a single point and never lift units by louver blades to avoid racking or deformation of equipment and components. Take necessary precautions to prevent damaging the penthouse finish.
5. Caulk and anchors are by others. Proper isolation (by others) is recommended between aluminum penthouse components and steel building conditions to prevent corrosion.
6. Coordinate curb details (by others) based on Nailor Extruded Aluminum Penthouse specifications and installation instructions.

II. Receiving

Upon delivery, inspect shipping containers and contents closely. If containers are damaged, contents may also be damaged. Note any damage on freight carrier's delivery receipt. Contact the freight company within 24 hours to initiate a claim and schedule an inspection. All products ship F.O.B Nailor plant and the receiver of the shipment is responsible for filing freight claims with the freight company.

III. Storage

Store penthouses in a cool, dry, and safe location in an orderly manner away from construction sites, warehouse traffic, other materials, etc. to prevent damage. Do not expose penthouses to excessive heat. Cover with plastic sheeting to protect from excessive moisture, dirt and debris.

IV. Preparation

1. Penthouses and Hardware
 - a. Locate all crates, boxes, cartons, etc.
 - b. Remove penthouses from packaging, inspect for damage, confirm quantities and sizes with packing list and organize parts in order of installation. Small penthouses may be shipped fully assembled. Larger units will be shipped in sections and assembled at the job site.
 - c. Notify your Nailor sales representative immediately of any shortages should they occur.
2. Openings and Curb
 - a. Inspect openings and curb (by others), for damage. Repair as needed and remove obstructions and debris as required.
 - b. Verify that the penthouse will fit prior to installation.
 - a. For mitered corner penthouses (1600PHM), the louver HBSA (Hidden Blade Support Angle) should extend inside the curb for attachment, with the louver blades extending beyond the front of the curb.
 - b. For boxed corner penthouses (1600PHB), the louver sill frames rest on the curb with the HBSA extending inside the curb for attachment.

V. Single Section Penthouse Installation

1. If required for proper installation, remove the penthouse roof panel(s) from the assembly, taking care not to rack or deform the assembly.
2. Ensure the top of the curb is free from dirt and debris.
3. Place the penthouse assembly on the curb.
4. Anchor the penthouse to the curb. Clip angles and fasteners for clip angle/penthouse connection are provided by Nailor. Fasteners for clip angle/curb connection are **NOT** provided by Nailor. **See Fig. 1.1M and Fig. 1.1B.**
5. If required, re-install the roof panels to the penthouse assembly using the same fasteners provided from the factory.
6. Caulk around the entire perimeter of the roof panel(s), as required (caulk by others).
WARNING: Do not caulk between louver and sill flashing to allow for drainage.

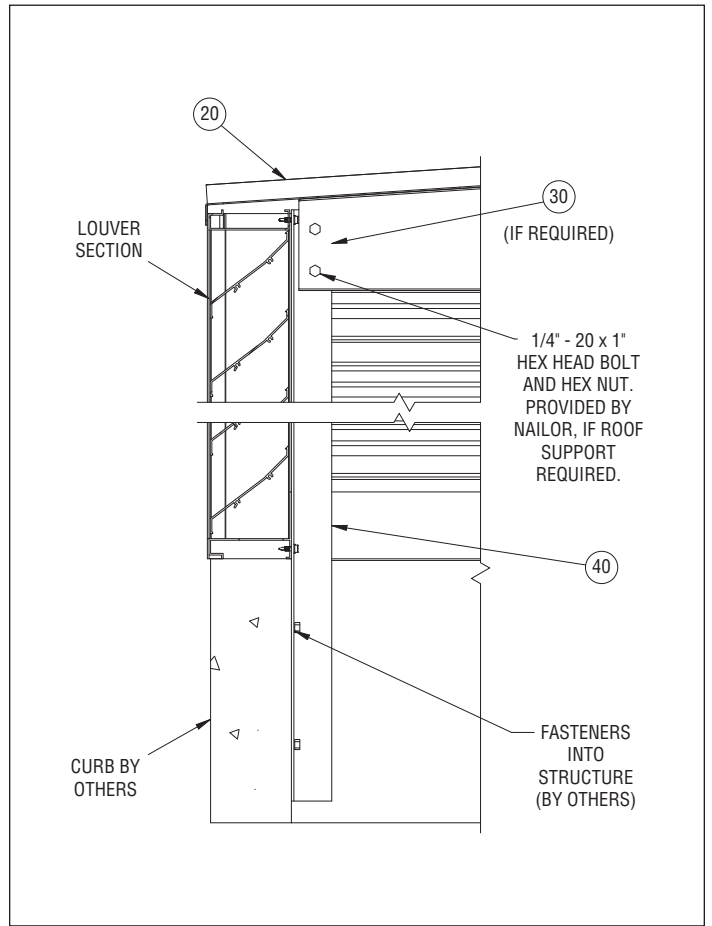
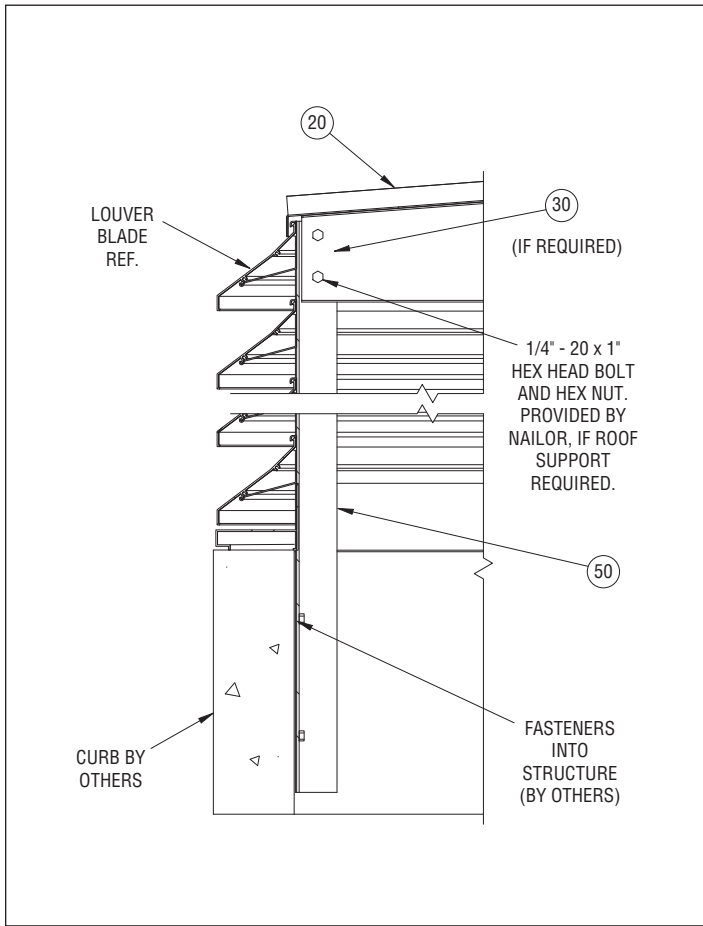


Fig. 1.1M

Fig. 1.1B

VI. Multiple Section Penthouse Installation

1. Ensure the top of the curb is free from dirt and debris.
2. Position the penthouse sections around curb as they will be installed. On large units with sides composed of multiple sections, locate the tag numbers on each section and place consecutive numbered sections in order. Reference any job specific drawings, if provided.
3. Assemble the short sides of the penthouse. On 1600PHM mitered corner units, assemble the corners to the short sides.
4. Reference **Fig. 2.1M** for 1600PHM section connection and **Fig. 2.1B** for 1600PHB connection.
 - a. **Note:** Short sides and corners may be provided from the factory pre-assembled in a "U" shape.

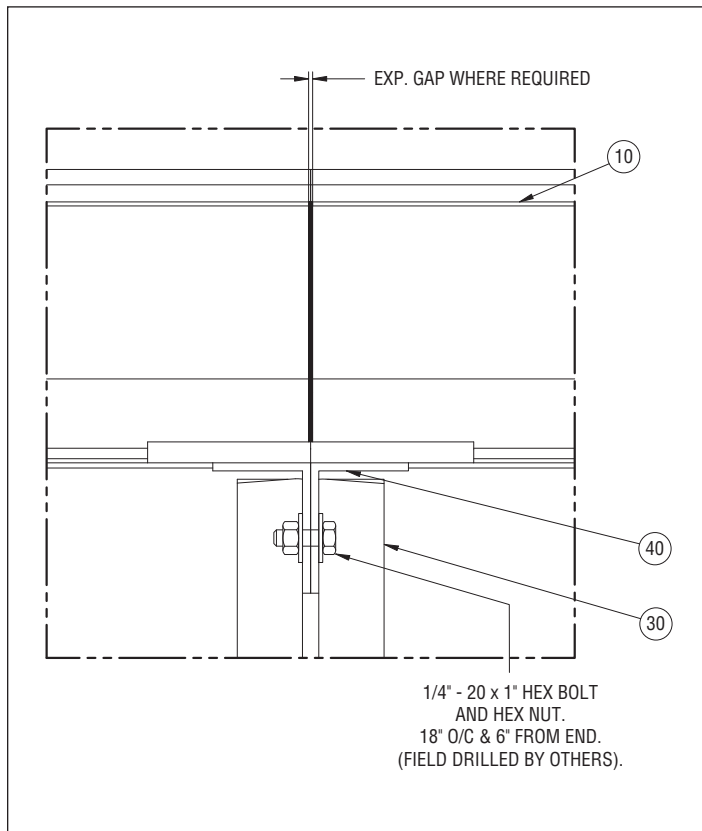


Fig. 2.1M

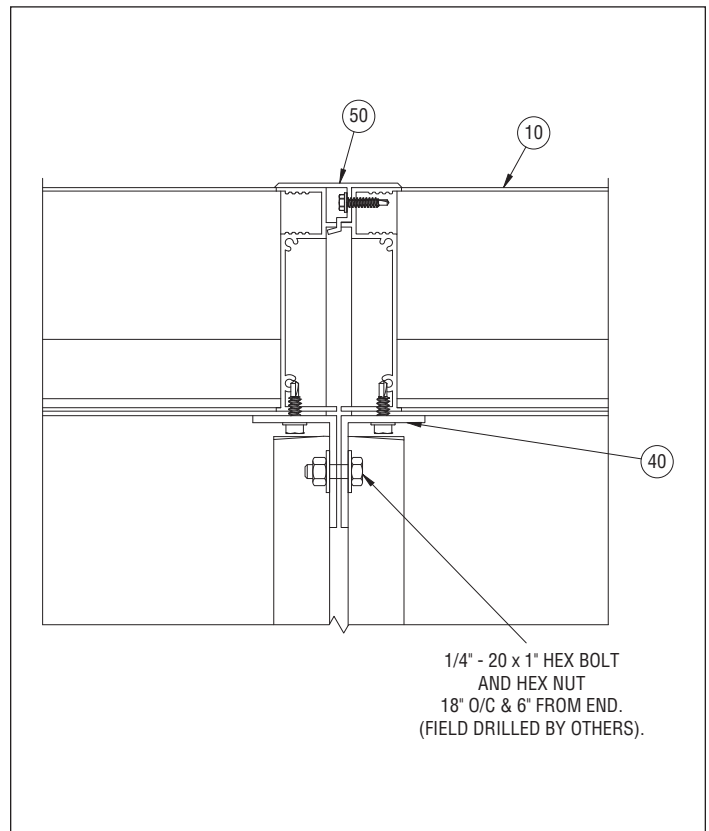


Fig. 2.1B

VI. Multiple Section Penthouse Installation (continued)

5. Assemble the long sides of the penthouse. Reference **Fig. 2.1M** for 1600PHM section connection and **Fig. 2.1B** for 1600PHB connection.
6. Place the short sides and mitered corners, if applicable, on the curb. Anchor the short sides and mitered corners, if applicable, to the curb. Clip angles and fasteners for clip angle/penthouse connection are provided by Nailor. Fasteners for clip angle/curb connection are **NOT** provided by Nailor. Reference **Fig. 1.1M** for 1600PHM and **Fig. 1.1B** for 1600PHB.
7. Place the long sides on the curb. Connect long sides to mitered corners, if applicable, or short side. Reference details identified above. Anchor the long sides to the curb. See Step #6 above.
8. On 1600PHB boxed corner penthouses, install corner cover angle to adjacent louver jamb frames with screws provided. **See Fig. 3.0B.**
9. Fasten roof panels with screws provided. Reference **Fig. 1.1M** for 1600PHM roof connection and **Fig. 1.1B** for 1600PHB roof connection. Reference any job specific drawings, if provided.
10. Caulk (by others) any exposed seams or joints in the roof that could allow water seepage.

WARNING: Do not apply excessive force to a single point and never lift units by louver blades, support angles, or splices.

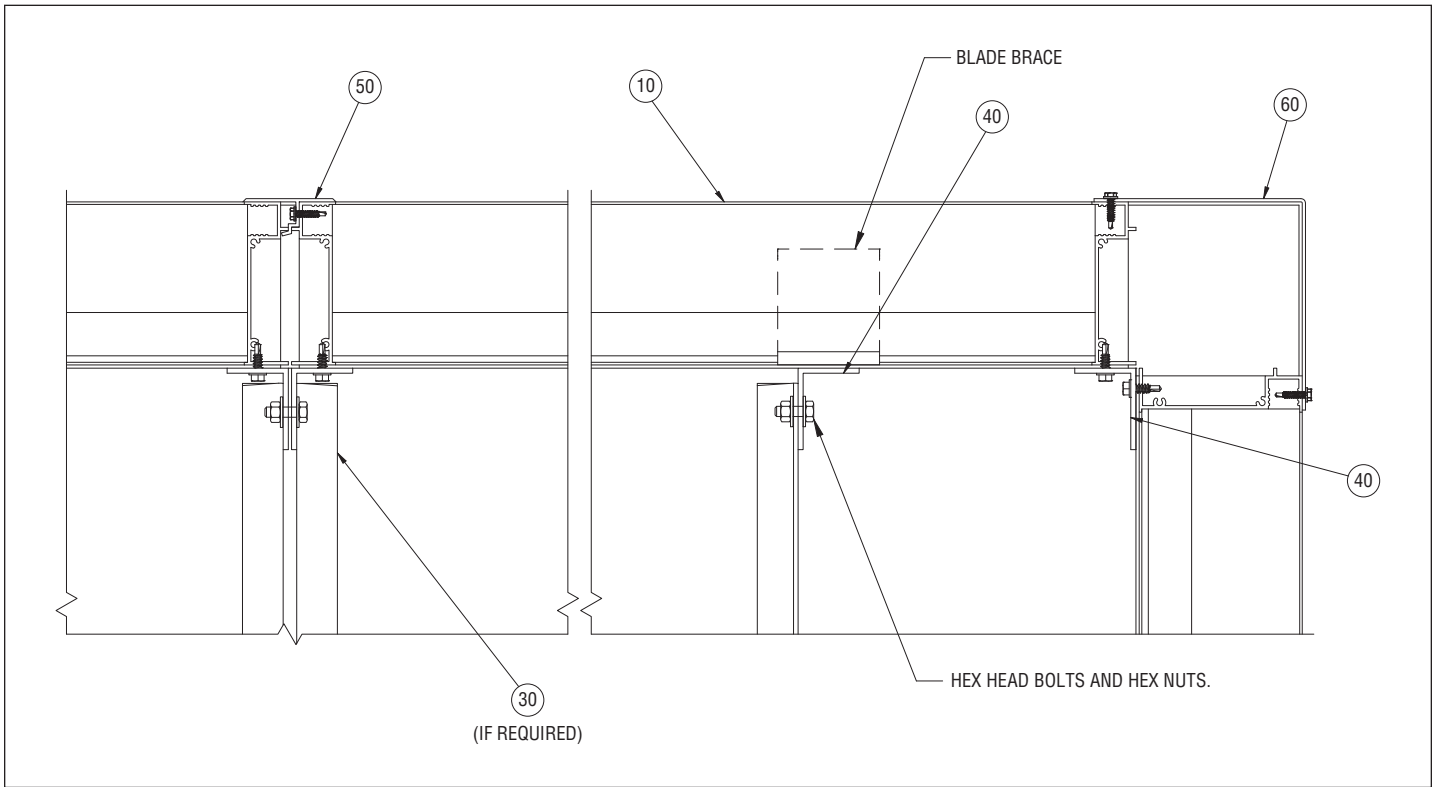


Fig. 3.0B

VII. Protecting and Repairing the Finish

Today's high quality painted and anodized finishes are extremely durable and despite this fact, even the best finishes require maintenance. Even with the most careful treatment of penthouses during shipment, installation and daily use, occasional damage may occur.

1. Care & Cleaning: Powder Coat Finishes

- When selecting a cleaning solution, use mild soap solutions that are safe for use with your bare hands and are not caustic or corrosive. Avoid the use of strong acid or alkali cleaners as they may damage the finish.
- Solvents equivalent to denatured alcohol or mineral spirits may be used to remove sealants, grease, or other materials. Never mix cleaners and/or solvents as the resultant mixture can cause harmful results.
- Do not use abrasive cleaners or abrasive materials (i.e. steel wool, steel brushes, etc.) which can also harm the finish.
- Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
- Rinse the surface thoroughly with clean water and let air dry.

2. Care & Cleaning: Anodized Finishes

- Follow steps a through c above.
- Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
- Scuffmarks and Rub marks may be removed using a mildly abrasive pad (i.e. Scotch-Brite pad). Use the pad to remove the mark, and then follow steps d and e above.

After installation of your penthouse, field touch up work (by others) may be required to remedy any damages during shipping, handling or installation.

3. Field Touch Up

- Minor painted surface damage can be sanded prior to touchup painting with excellent results. For superficial scratches and gouges, use a relatively course grit sandpaper to remove the damage, then use progressively finer grit paper to remove the sanding marks, finishing with a 180 to 220 grit paper.

WARNING: Sanding of Anodized surfaces prior to touchup painting is **NOT** recommended.

- Touchup paint can be ordered by contacting your Nailor representative. It is intended to cover up small blemishes or to touchup exposed ends on fabricated parts. The color will closely match the factory applied painted or anodized finish, however the touchup finish will not be as durable as the original finish.

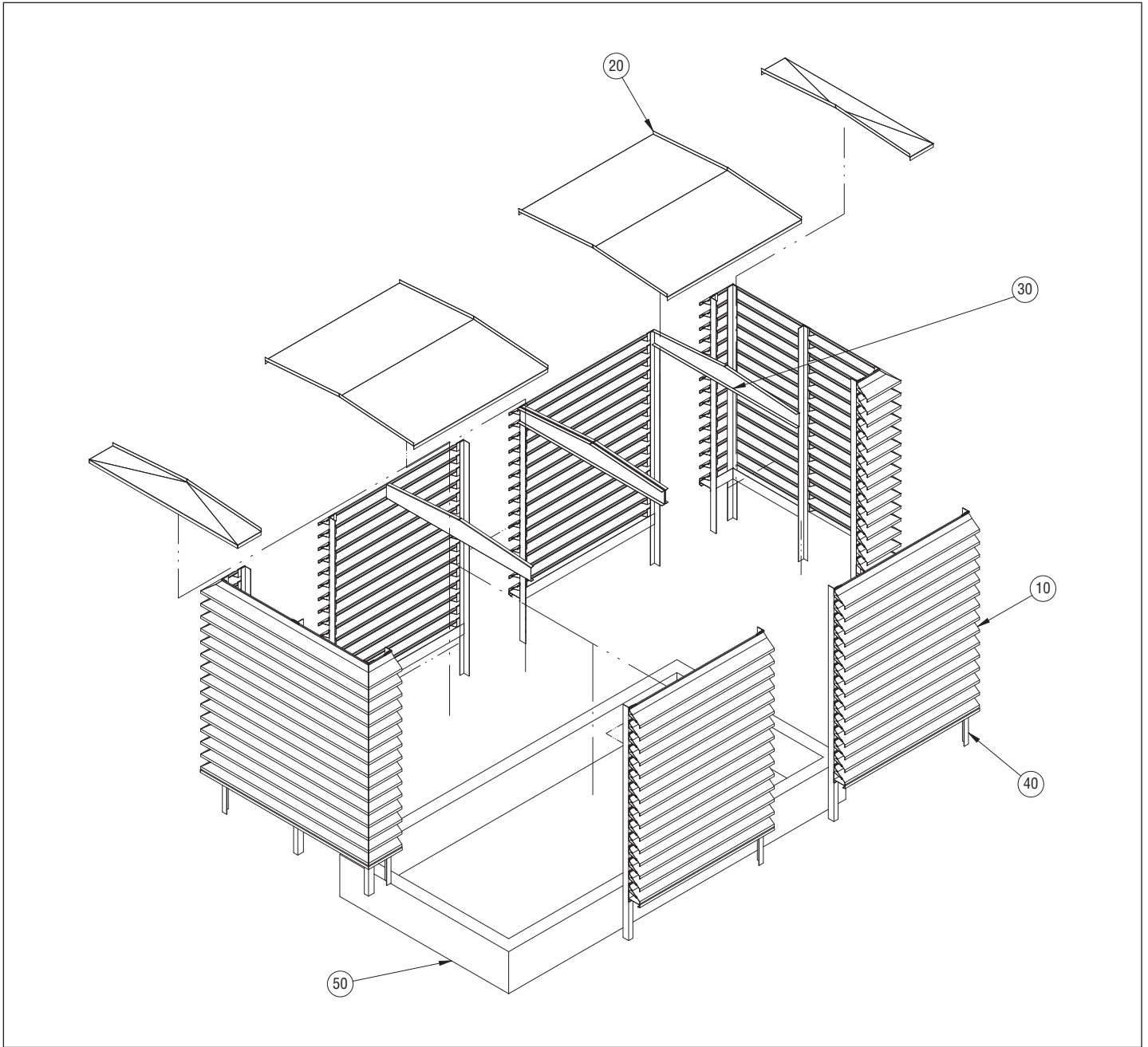


Fig. 4.0M

ITEM	DESCRIPTION
10	Louver Section
20	Roof Panel - Size and Thickness Vary (Ship Loose)
30	Roof Support (If Required) Refer to Job Specific Dwgs
40	Vertical Hidden Blade Support Angle (HBSA)
50	Curb (By Others)

Dimensions are in inches (mm).

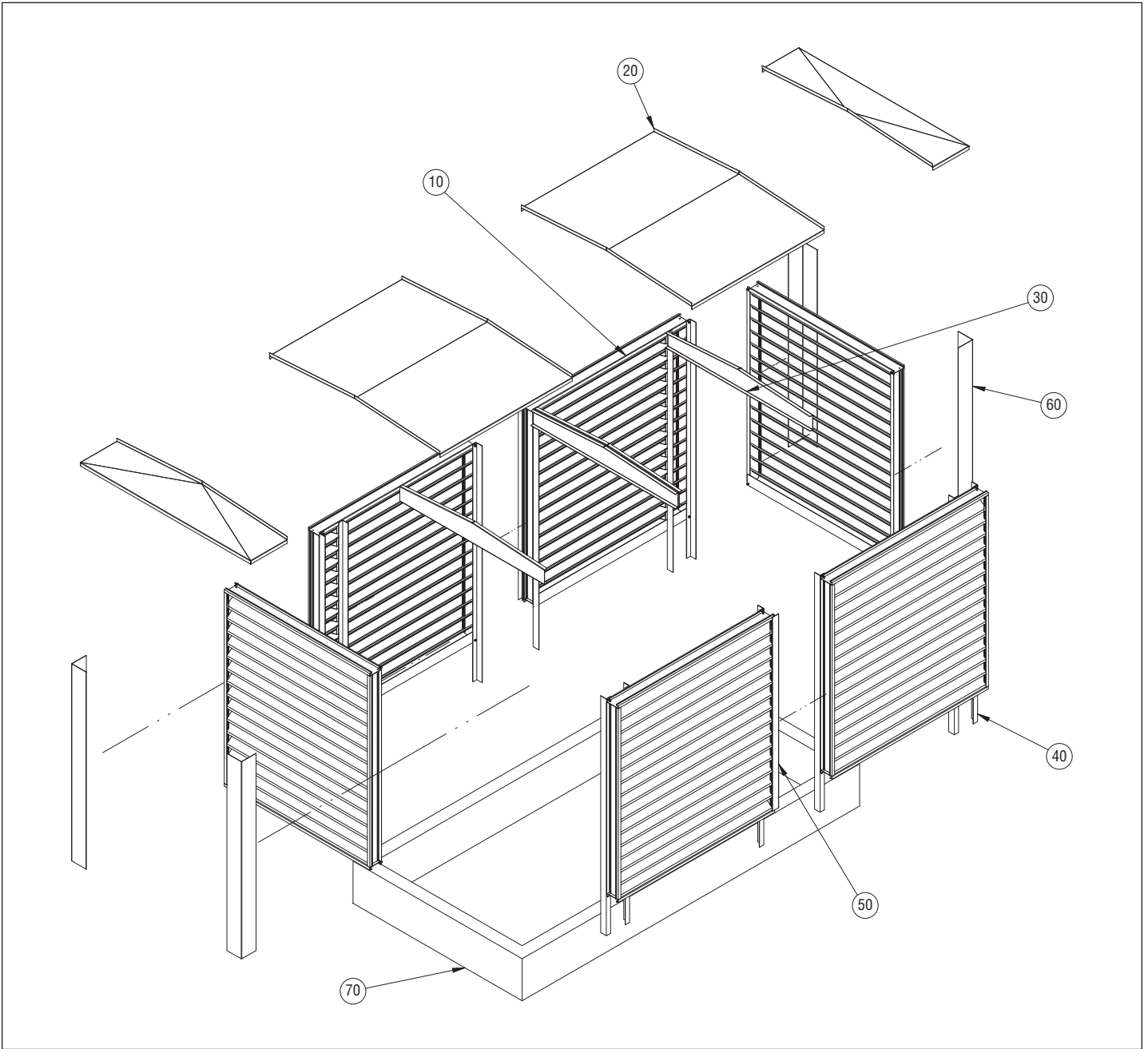


Fig. 4.0B

ITEM	DESCRIPTION
10	Louver Section
20	Roof Panel - Size and Thickness Vary (Ship Loose)
30	Roof Support (If Required) Refer to Job Specific Dwgs
40	Vertical Hidden Blade Support Angle (HBSA)
50	Mullion Cover
60	Corner Panel
70	Curb (By Others)

Dimensions are in inches (mm).



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Fax: 416-744-3360

Calgary, Canada
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