## **Before You Begin**

#### IMPORTANT

Read these instructions thoroughly before beginning to assemble any multiple Elevate units. Failure to assemble as recommended will void any warranty, written or implied. Refer to specific product installation instructions for proper installation methods.

# **MARNING!**

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

# **MARNING**!

Do NOT lift or move without proper equipment. Read, understand, and follow all lift equipment manufacturers' instructions and safety information.

NOTE: When specifying or considering the structural load requirements for windows and doors, it is important to consider the method of fastening the unit(s) together in addition to the method of fastening multiple assemblies into an opening. The methods contained herein may not be appropriate for all performance requirements. Selection of the appropriate fastening method(s) is the sole responsibility of the installer, contractor, structural engineer, architect, building owner and/or installer.

- Assemblies exceeding these limitations must be field mulled and must be assembled using a structural mullion kit designed specifically for Elevate multiple assemblies. Contact your Marvin dealer for additional information.
- The construction adhesive called for in the Round Top over Inswing door instructions should meet AFG-01 specifications, as established by the American Plywood Association.

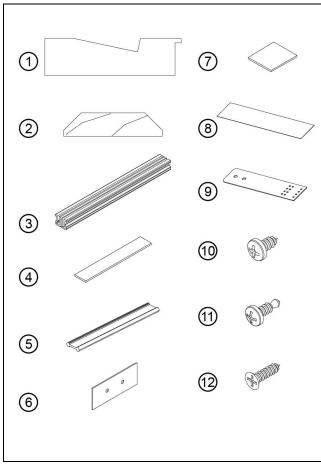
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## **Vertical Mulling**

## Parts Shipped w/ Mullion Kit-Vertical



- Power drill/driver
- · Phillips drive bit
- 3/16" drill bit
- 7/64" drill bit
- 16 gauge 1/2" x 1/2" staples with gun
- · Hearing protection
- Scrap pieces of wood
- Clamps
- Hacksaw
- Silicone Sealant with gun

#### Figure 1

W13310 Jamb extension
W1241 Interior mull trim
V1407 Euro groove block
Mull sealant foam tape- one sided A330 Aluminum mulling pin
A330 Aluminum mulling pin
Interior sill mull bracket
Nailing fin connector
26 gauge mulling tin (2 sheets) 3 1/2" x 16" Nailing fin connector
Structural brackets (either 6" or 10")
#8 x 3/8" Phillps pan head screws
#8 x x1/2" Phillips pan head screws
#7 x 5/8" Phillips flat head wood screws

NOTE: Refer to the Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

### You Will Need to Supply

· Safety glasses

## Stationary Panel Removal (ELIFD Only)

When mulling a stationary unit to an operator, it will be necessary to first remove the stationary panel from the frame and install the V1407 Euro Groove Block on the mull side stile of the panel.

**1.** To remove the stationary panel insert a stiff putty knife between the stationary panel and jamb toward the top of the panel as shown in Figure 2. Slide the knife down until it hits a stationary panel clip. Once the stationary clip is located, insert the knife between the clip and panel.

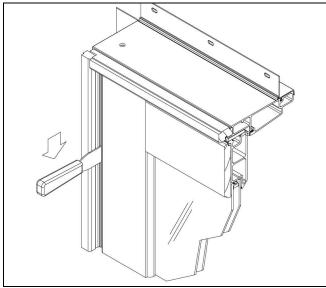


Figure 2 Interior View

**2.** With the stiff putty knife in place, carefully pry the panel away from the frame using a pry bar as shown in Figure 3.

NOTE: You cannot completely remove the panel until the entire side of the panel is released from the stationary clips.

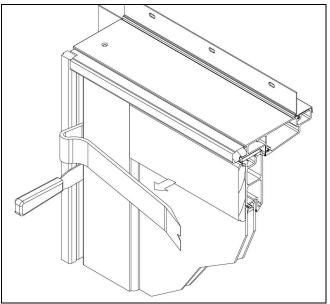


Figure 3 Interior View

**3.** Keeping tension on the panel with the pry bar, locate the next stationary clip and release from panel. Repeat the above steps until panel has been released from all clips on one side (three clips per side). Once released, remove panel and set aside.

**4.** Drive a  $\#8 \times 1/2"$  pan head screw into the mull side stile 31 1/2" (800) from the bottom of the panel drip as shown in Figure 4.

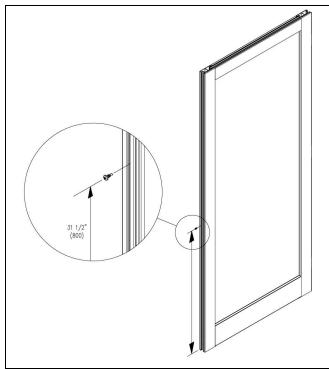
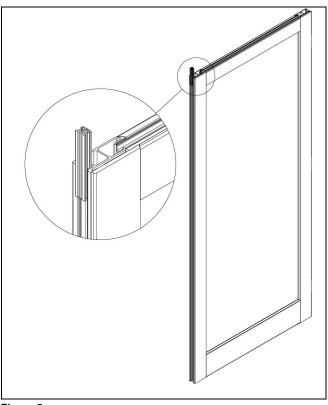


Figure 4

**5.** Slide the Euro Groove Block into the stile at the top of the panel as shown in Figure 5.





**6.** Replace the stationary panel from the interior, set replacement stationary panel on sill and tip into frame as shown in Figure 6. Make sure all stationary clips have engaged the Ultrex stiles of stationary panel.

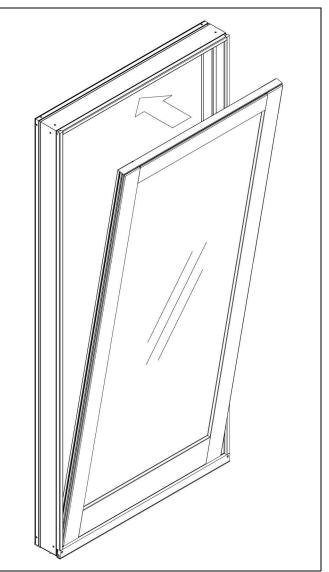
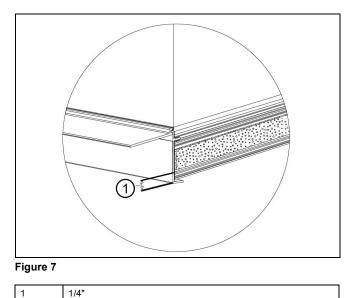


Figure 6 Interior view

### Mulling Procedures-Vertical

1. Carefully lay units on a flat surface in the desired mulling configuration (interior facing up). Remove nailing fin from side jambs that will be mulled together. Apply mull sealant foam tape the entire length of one jamb to be mulled ensuring it is located 1/4" (6) from the exterior edge of the Ultrex frame. See Figure 7.



2. Position units together in desired mulling configuration. Check to be sure that frames at both sides of mullion are flush and nailing fin/drip cap kerfs are aligned. Lightly clamp units together on interior (use wood scraps to protect interior) near each end to hold

3. Drill outer edges of nailing fin/drip cap kerfs at head jamb mullion with a 3/16" (5) drill bit as shown in Figure 8. Clean filings from the drilled area to ensure easy installation of mull pin.

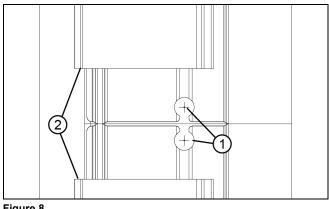


Figure 8

units in place.

1	Drill out accessory kerf with 3/16" hole
2	Drip cap

4. Drive the mull pin in the full length of the jamb (use a hammer if necessary) ensuring that the mull pin is recessed 1/4" (6) to allow for sealant application later.

5. Check to make sure that units are flush and square with each other. Apply a third clamp to interior if necessary and fasten units together at interior jamb liners with 1/2" x 1/2" 16 gauge staples spaced every 5" (127).

6. Center mulling tin over mullion at head jamb and flush with recess in wood head jamb liner. Secure tin to head jamb with 1/2" x 1/2" 16 gauge staples as shown in illustration 3. On Inswing units, drill pilot holes through mulling tin and first layer of Ultrex with a 7/64" (3) drill bit at locations shown in illustration 8. Fasten mulling tin to head jamb with #8 x 3/8" Phillips pan head screws provided. See Figure 9 and Figure 10.

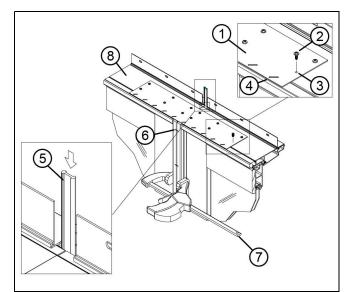


Figure 9 Inswing to Inswing mulling at head jamb

1	Mulling tin
2	#8 x 3/8" Phillips pan head screw
3	Pilot hole
4	1/2" x 1/2" gauge staples
5	Mulling pin
6	1/2" x 1/2" gauge staples
7	Clamp

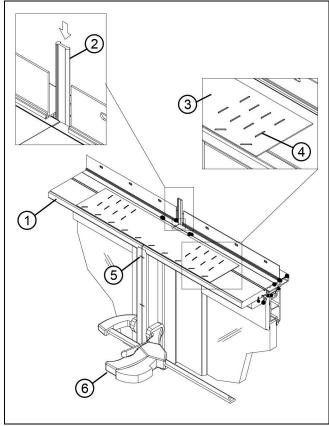


Figure 10 Outswing to Outswing mulling at head jamb

1	Head jamb
2	Mulling pin
3	Mulling tin
4	1/2" x 1/2" gauge staples
5	1/2" x 1/2" gauge staples
6	Clamp

**7.** If mulling a direct glaze polygon beside an inswing door, skip to step 9 on page 8. Remove the #8 x 1" Phillips pan head or 4" Phillips pan head screws from the interior side of sill on each unit. Align holes on interior sill mull bracket and reattach with screws removed previously. See Figure 11, Figure 12, Figure 13, Figure 14, or Figure 15. Skip to step 10 on page 8.

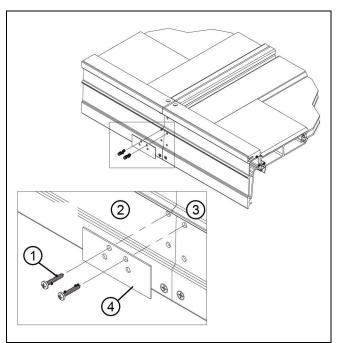
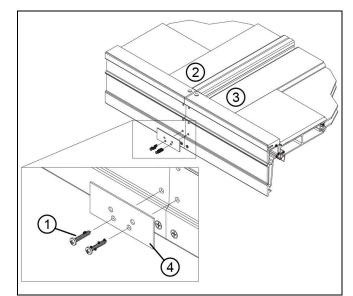


Figure 11 ELSFD to ELIFD

1	#8 x 1" pan head screws
2	ELSFD sill
3	ELIFD sill
4	Sill mullion bracket



#### Figure 12 ELIFD to ELIFD

1	#8 x 1" pan head screws
2	ELIFD sill
3	ELIFD sill
4	Sill mullion bracket

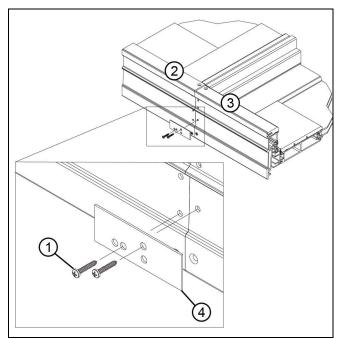
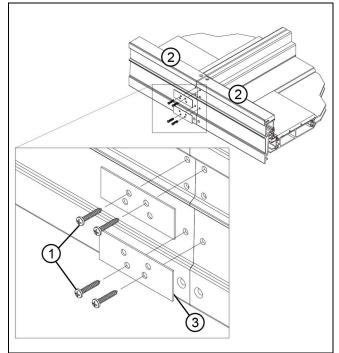


Figure 13 ELSFD to ELOFD

1	#8 x 1" pan head screws
2	ELSFD sill
3	ELOFD sill
4	Sill mullion bracket



#### Figure 14 ELOFD to ELOFD

1	#8 x 1" pan head screws
2	ELOFD sill
3	Sill mullion bracket

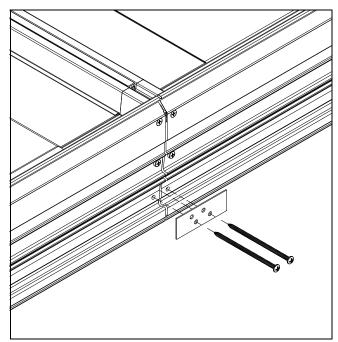


Figure 15 ELOFDG3 to ELOFDG3 Sill detail

1	#8 x 4" Pan Head Screws
2	ELOFD Sill
3	Sill Mullion Bracket

**8.** If mulling a direct glaze polygon beside an inswing door, install structural brackets on both sides of the head jamb mullion and on the polygon side of the sill mullion. Measure and mark 1 1/4" (32) from nailing fin extended on head jamb of inswing door. Attach bracket with one #7 x 5/8" Phillips flat head wood screw. Attach structural bracket to sill and head jamb of polygon with two #7 x 5/8" wood screws. See Figure 16 and Figure 17.

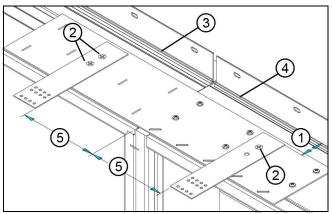


Figure 16 Head jamb detail

1	1 1/4" (32)
2	#7 x 5/8" Phillips flat head screws
3	Direct glaze Polygon
4	Inswing door
5	4" (102)

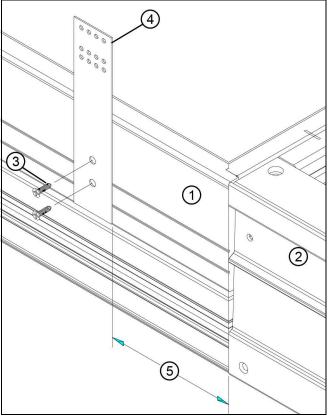


Figure 17 Sill detail

1	1 1/4" (32)
2	#7 x 5/8" Phillips flat head screws
3	Direct glaze Polygon
4	Inswing door
5	4" (102)

**9.** Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 18 and Figure 19. Apply the nailing fin connector by removing the paper backing from the connector and pressing into place.

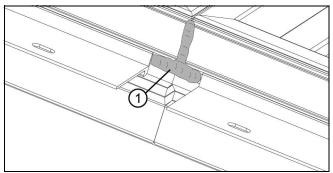
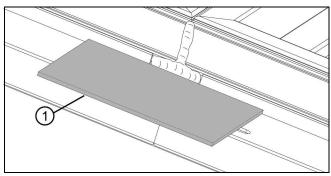


Figure 18



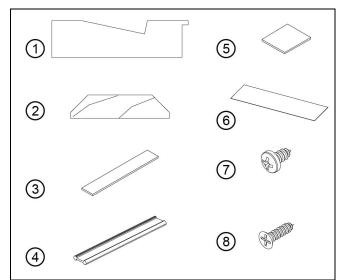


1 Nail fin connector

**10.** If applicable, jamb extensions can now be installed. Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after unit is completely installed and interior trim is applied.

## **Transom Mulling**

## Parts Shipped



#### Figure 20

1	W13310 Jamb Extension (for mulling dg polygons above or be- side inswing door.
2	W1241 Interior trim
3	Mull sealant foam tape- one sided
4	A330 Aluminum mulling pin
5	Nailing fin connector
6	26 gauge mulling tin (2 sheets) 3 1/2" x 16"
7	#8 x 3/8" Phillps pan head screws
8	#7 x 5/8" Phillips flat head wood screws

NOTE: Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

### You Will Need to Supply

- Safety glasses
- · Power drill/driver
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1/2" staples w/gun
- · Hearing protection
- Scrap pieces of wood
- Clamps

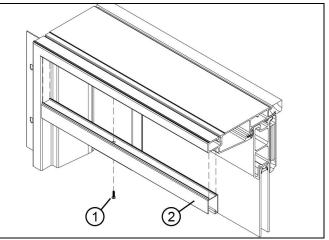
### Single Wide Transom over Inswing

For Inswing Doors with Sliding Screens Only:

### IMPORTANT

Secure the Elevate Inswing door in a rigid standing position before attempting to remove the screen door track.

If equipped, remove the sliding screen door track assembly at this time. Slide the screen roller bar to one side and remove the Phillips flat head screws located in the screen track. Move roller bar to the opposite side and remove the remaining screws securing screen track. See Figure 21.





ĺ	1	Phillips flat head screws
	2	Screen track

**1.** If applicable, remove nailing fin/drip cap from head jamb of door and sill of transom. Apply one sided mull sealant foam tape to the entire length of door head jamb ensuring it is located 1/4" (6) from the exterior edge of the Ultrex frame. See Figure 22.

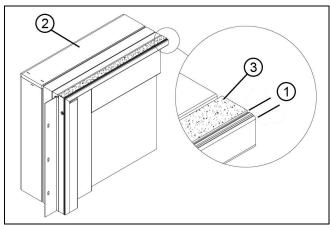


Figure 22

1	1/4"
2	ELOFD Head Jamb
3	1 sided mull tape

2. Position the rectangular transom on the head jamb of door. Check to be sure that both ends of the transom sill are flush with door head jamb Apply clamps to interior side at each end of head jamb and sill to prevent movement. Use scrap pieces of wood to prevent marring of wood surface. Make sure that nailing fin/drip cap kerfs line up on both ends. See Figure 23. Drill the outer edges of mull kerf located at one side at head jamb of door and sill of transom with a 3/16" (5) drill bit as shown in Figure 23. This will allow easy application of mulling pin. Be sure to clean filings from the drilled area prior to mull pin installation.

Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" (6) to allow for sealant application later.

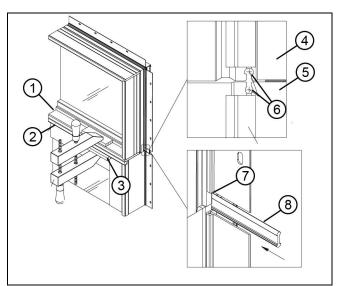
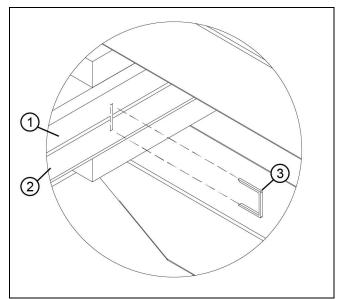


Figure 23

1	Transom sill
2	Inswing door head jamb
3	Wood blocks
4	Transom jamb
5	Inswing jamb
6	Drill 3/16" hole
7	Mulling kerf
8	Mulling pin

**3.** Apply third clamp if necessary and fasten interior wood members with 1/2" x 1/2" 16 gauge staples spaced every 5" (127). See Figure 24.



#### Figure 24

1	Transom sill
2	Inswing head jamb
3	1/2" x 1/2" 16 gauge staples (spaced 5" apart)

**4.** Center mulling tin over mullion and secure with 1/2" x 1/2" 16 gauge staples as shown in Figure 25 (Inswing) and Figure 26 (Outswing).

**5.** On Inswing units, drill three pilot holes  $3 \ 1/8" \ (79)$  in from the exterior face on each side of the door unit through mulling tin into the Ultrex jamb using a 7/64" (3) drill bit. See illustration 16. Make sure not to drill past the first thickness of Ultrex. Secure with #8 x 3/8" screws provided.

**6.** Attach structural masonry brackets 2" above the mullion with two  $#7 \times 5/8$ " flat head wood screws.

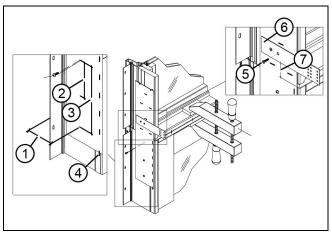


Figure 25 Inswing Door

1	3 1/8"
2	3 1/8"
3	6 1/4"
4	1/2" x 1/2" staples
5	#7 x 5/8" wood screw
6	Structural masonry bracket
7	2"

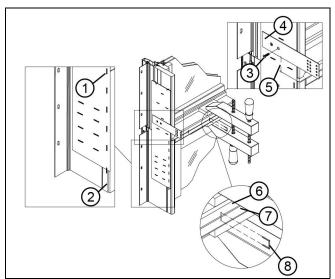


Figure 26 Outswing Door

1	1/2" x 1/2" 16 gauge staples
2	Wood jamb liner
3	#7 x 5/8" flat head wood screws
4	Structural masonry bracket
5	2"
6	Transom sill
7	Swinging door head jamb
8	1/2" x 1/2" 16 gauge staples

**7.** Remove clamps from the unit. Reapply screen track assembly if removed earlier.

**8.** Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 18 and Figure 19. Apply the nailing fin connector by removing the paper backing from the connector and pressing into place.

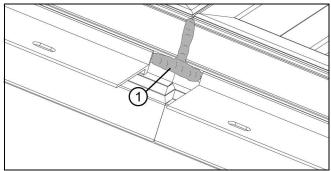
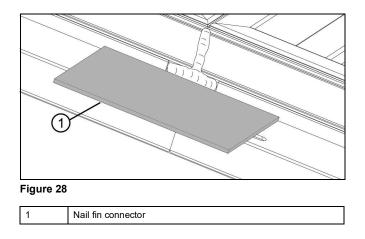


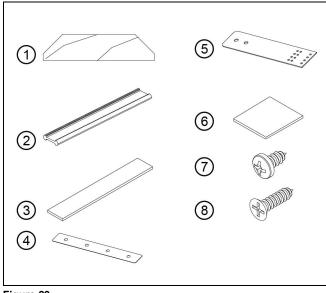
Figure 27



**9.** Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after unit is completely installed and interior trim is applied.

## Multiple Wide Transom over Swinging Door

### Parts Shipped



#### Figure 29

1	W1241 Interior trim
2	A330 Aluminum mulling pin
3	Mull sealant foam tape- one sided
4	Steel mull tie
5	Structural Bracket (6" or 10")
6	Nailing fin connector
7	#8 x 3/8" Phillps pan head screws
8	#7 x 5/8" Phillips flat head wood screws

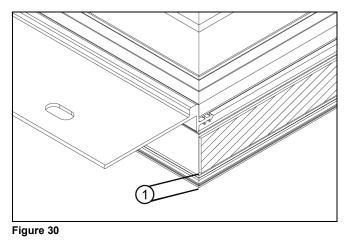
NOTE: Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

#### You Will Need to Supply

- Safety glasses
- · Power drill/driver
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1/2" staples w/gun
- · Hearing protection
- · Scrap pieces of wood
- Clamps

### Mulling Procedure-Multiple Wide Direct Glaze Transom over Inswing Door

**1.** Lay the transom frames on a flat surface in the desired mulling configuration (interior facing up). Remove nailing fin from sill and side jambs that will be mulled together. Apply mull sealant foam tape along the entire length of one jamb to be mulled ensuring it is located 1/4" (6) from the exterior edge of the Ultrex frame as shown in Figure 30



1 1/4"

**2.** Position units together in the desired configuration. Check to be sure that the frames at both ends of the mullion are flush and the nailing fin kerfs are aligned. Lightly clamp units together on interior near each end to hold mulled units in place (use wood blocks to protect interior). See Figure 31.

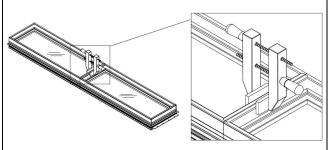
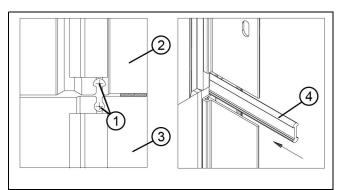


Figure 31

**3.** Drill out the outer edges of the nailing fin/drip cap kerf at the mullion with a 3/16" drill bit as shown in illustration 20. Clean filings from drilled area to ensure easy installation of the mull pin. Insert mull pin the full length of the mullion ensuring that it is recessed 1/4" to allow for sealant and horizontal mull pin application later. If necessary drive the mull pin with a hammer. See Figure 32.



#### Figure 32

1	Drill 3/16" holes
2	Transom jamb
3	Inswing door jamb
4	Mulling pin

**4.** Make sure mulled units are flush and square at sill and jamb liners. Fasten interior of mulled units with 1/2" x 1" 16 gauge staples spaced every 5" (27). See Figure 33.

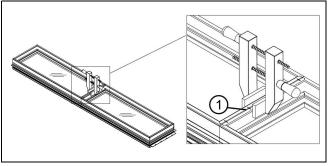
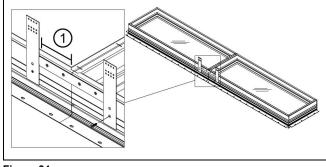


Figure 33

1 1/2" x 1" 16 gauge staples

**5.** Install the steel mullion tie across head jambs and fasten with two  $\#7 \times 5/8"$  Phillips flat head wood screws into each unit. Install structural brackets 4" (102) from the mullion and attach with one  $\#7 \times 5/8"$  Phillips head screw as shown in Figure 34.







**6.** Apply silicone sealant at both mullion joints from the frame exterior edge to the drip cap/nailing fin kerf and across the kerf over the mulling pin as shown in Figure 35 and Figure 36. Apply the nailing fin connector by removing the paper backing from the connector and pressing into place.

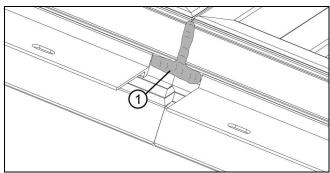


Figure 35

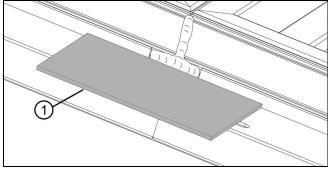


Figure 36

1	Nail fin connector
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**7.** Follow the instructions detailed in the section, Single Wide Transom over Inswing on page 9 for mulling a single transom over an Elevate Swinging French door.

## **Elevate Round Top over Elevate Swinging Door**

### Parts Shipped

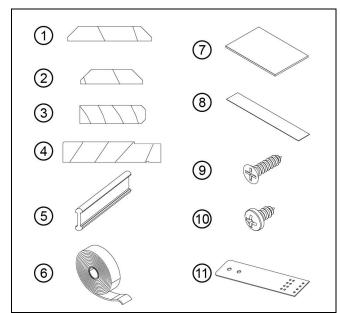


Figure 37

W1241 Interior trim (for 6 9/16" jambs)
W1242 Interior trim (for 4 9/16" jambs)
W7431 12" mull filler blocks for 4 9/16" jambs (Qty 2)
W8430 horizontal mull filler for 6 9/16"" jambs
A330 Aluminum mulling pin
Mull sealant foam tape- one sided
Nailing fin connectors (Qty 2)
Mulling tin 3 1/2" x 16" (64 x 406)
#8 x 3/8" Phillps pan head screws (Qty 6)
#7 x 5/8" Phillips flat head wood screws (Qty 8)
Structural Bracket (6" or 10") (Qty 4)

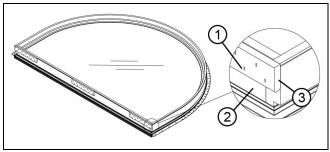
NOTE: Refer to the Elevate Accessories Chapter of the Elevate Parts Manual to find individual part numbers for the mull kit components.

## You Will Need to Supply

- Safety glasses
- Power drill/driver
- #2 Phillips bit
- 3/16" drill bit
- 7/64" drill bit
- Silicone sealant w/gun
- 16 gauge 1/2" x 1/2" staples w/gun
- Hearing protection
- Scrap pieces of wood
- Clamps

### **Mulling Procedures**

**1.** Lay frames on a flat surface in the desired mulling configuration (interior side up). Remove nailing fin from head jamb of inswing door. Remove shipping blocks from sill of ELALDGRT. Attach additional mull filler blocks to the ELALDGRT 4 9/16" sill as needed, flush to the interior, with 3/16" x 1" staples. See Figure 38.





1	3/16" x 1" staples
2	ELALDGRT SIII
3	Mull filler block

**2.** For mulling ELALDGRT units to inswing door units with 6 9/16" jambs W8430 jamb extension is supplied. Remove shipping blocks and trim jamb as shown in Figure 39. Cut horizontal mull filler to length and apply with 3/16" staples as shown in Figure 39.

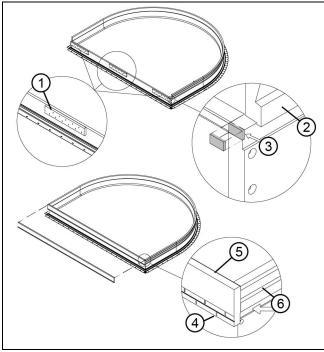


Figure 39

1	Remove blocking
2	Radius jamb extension
3	Trim off flush
4	3/16" x 1" staples
5	Mull filler
6	Radius jamb

**3.** Apply one sided mull tape the entire length of door head jamb ensuring it is located 1/4" (6) from the exterior edge of the Ultrex frame. See Figure 40.

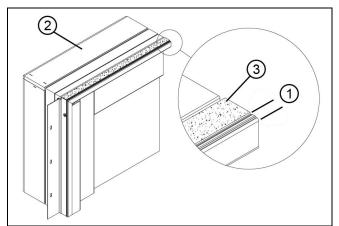
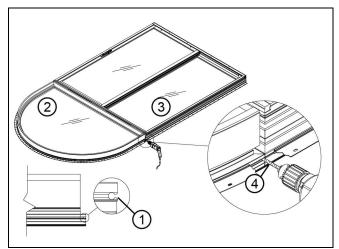


Figure 40

1	1/4"
2	ELIFD Head Jamb
3	1 sided mull tape

**4.** Position ELALDGRT on the head jamb of door. Check to be sure that both ends of the ELALDGRT sill are flush with door head jamb. Apply clamps to interior side at each end of head jamb and sill to prevent movement. Use scrap pieces of wood to prevent marring of wood surface. Make sure that nailing fin/drip cap kerfs line up on both ends. See Figure 41.

**5.** Drill the outer edges of mull kerf located at one side at head jamb of door and sill of transom with a 3/16" (5) drill bit as shown in illustration. This will allow easy application of mulling pin. Be sure to clean filings from the drilled area prior to mull pin installations.



#### Figure 41

1	3/16" drill
2	ELALDGRT unit
3	ELIFD unit
4	Drill with 3/16" drill bit

**6.** Cut the mulling pin 1/2" shorter than the mull joint. Drive mull pin in the full length of sill/head jamb (use hammer if necessary) ensuring it is recessed 1/4" (6) to allow for sealant application later. See Figure 42.

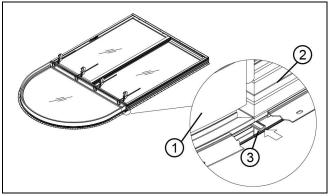


Figure 42

**7.** Apply additional clamps if necessary and fasten interior wood members with 1/2" x 1/2" 16 gauge staples spaced every 5" (127). See Figure 43.

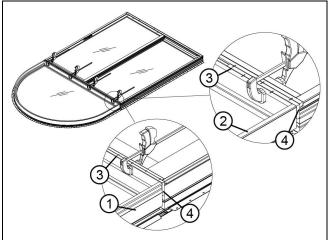
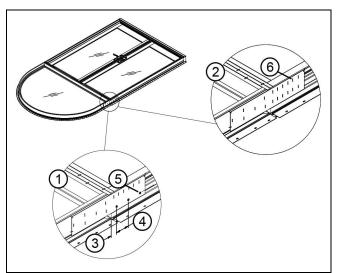


Figure 43

1	6 9/16" jambs
2	4 9/16" jambs
3	1/2" x 1/2" 16 gauge staples
4	Mull filler

**8.** Center mulling tin over mullion and secure with 1/2" x 1/2" 16 gauge staples as shown in Figure 44.

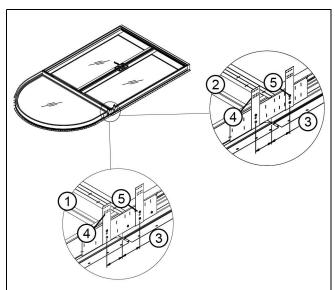
**9.** On Inswing units, drill three pilot holes 3 1/8" (79) in from exterior face on each side of the door unit through mulling tin into the Ultrex jamb using a 7/64" (3) drill bit. Make sure not to drill past the first thickness of Ultrex. Secure with #8 x 3/8" screws provided



#### Figure 44

1	Inswing
2	Outswing
3	1"
4	3 1/8"
5	#8 x 3/8" pan head screws
6	1/2" x 1/2" 16 gauge staples

**10.** Attach two structural brackets on both sides of the unit with  $#7 \times 5/8$ " flat head wood screws; one 4" (101) on each side of the mull joint. See Figure 45.

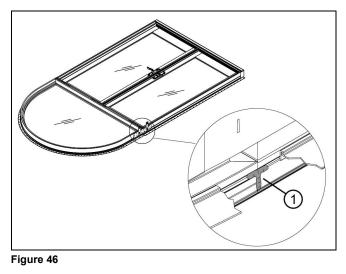


#### Figure 45

1	Inswing
2	Outswing
3	4"
4	Structural bracket
5	#7 x 5/8" screws

**11.** Apply sealant on exterior over and into mullion joint from exterior edge of mulling tin to exterior surface of the jamb.

**13.** Follow installation instructions for installing unit into rough or masonry opening. Interior mull trim should be applied after installation of unit and interior trim has been completed.



1	Sealant

**12.** Apply nailing fin connectors to exterior as shown in Figure 47.

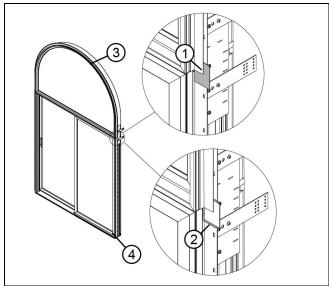


Figure 47

1	Nail fin connector
2	Sealant
3	Round Top
4	Inswing Door

NOTE: It is important that care be exercised when moving a mulled assembly from the mullion area to the rough opening.