

## Design Considerations & Installation Guidance

LiteSpace Interior Aluminum Framing provides a slim profile for glass walls and office fronts. It is designed to be cut to length on project sites for finished, cased openings or unfinished deck-to-deck applications.

You should review the Design Considerations section of this document. Read through the instructions before installation.



### IMPORTANT

- Special-Lite makes no representations regarding the products intended application and use. It shall be the sole responsibility of the user to determine suitability, use, and appropriate reinforcement and/or anchors of Special-Lite interior aluminum framing and integrated glass.
- These instructions are provided to help prevent installation problems caused by most common errors. They are strictly recommendations and are not intended to be a step-by-step, foolproof installation checklist suitable for every situation.
- There are many variations of installations not covered in these instructions that Special-Lite assumes are general construction knowledge to an experienced installer. Selection of an experienced installer is the sole responsibility of the project owner or responsible party.
- Failure to follow good practice in installation will void the warranty on Special-Lite products.**
- If you have any questions about installation techniques for your particular project, please call 1-800-821-6531 and ask for a Special-Lite Customer Service Representative.

# Design Considerations

Before ordering and attempting installation of LiteSpace, consider all of the following guidelines to ensure correct application of this product.

## Opening Details

- LiteSpace is designed to be mounted on finished, cased openings.
- The opening surfaces **MUST** be level, plumb, and square.
- The opening surfaces must be clean (with no buildup of drywall or putty).
- When sliding doors are to be used, the header of the opening must be reinforced. See section, *Sliding Door Header Reinforcement*.

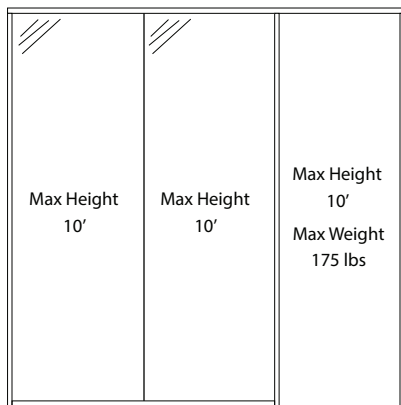
## Cut to Length

LiteSpace extrusions are delivered in lengths of 126 inches. Cut these extrusions to length to fit your desired opening.

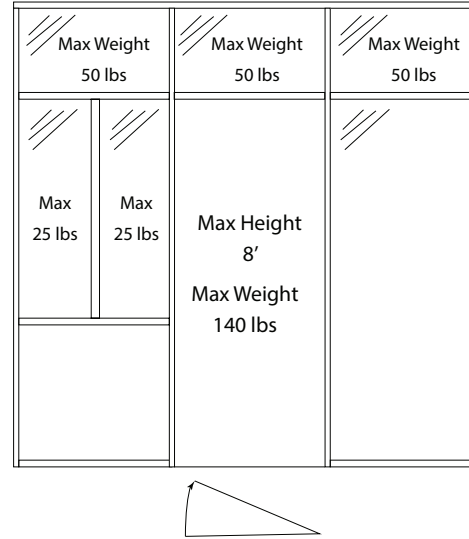
## Standard Elevation Limitations

### Swinging Doors

- With hinge jamb mounted to finished wall:
  - Max. Opening Height: 10 feet (3.05 m)
  - Maximum door height: 10 feet (3.05 m)
  - Maximum total door weight, including glass and hardware: 175 lbs (79.4 kg)

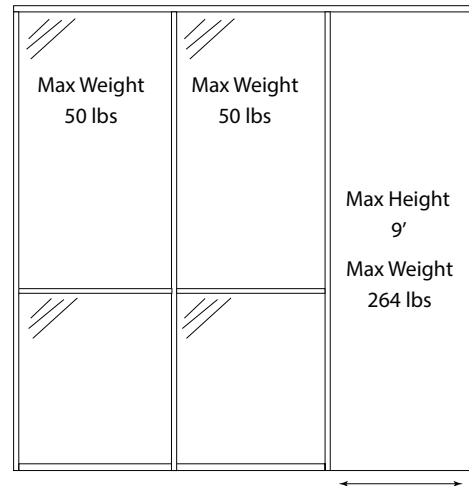


- With hinge jamb mounted to vertical intermediate mullion:
  - Maximum door height: 8 feet (2.44 m)
  - Maximum door weight, including glass and hardware: 140 lbs (63.5 kg)



### Sliding Doors

- Maximum door height: 10 feet (3.05 m)
- Maximum door weight, including glass and hardware: 264 lbs. (120 kg)
- Transoms are not permitted



### Side-lite with Horizontal Mullion

- Glass weight should not exceed 50 lbs (22.7 kg) per section

## Transom

- Glass weight should not exceed 50 lbs (22.7 kg) per section
- Should not exceed 36" (.91 meters) per section

## Glazing Specifications


- LiteSpace is designed for 3/8" glass but can also accommodate 1/4" or 1/2" thick glass.
- The glass is secured with a vinyl bulb.
- You **MUST** pull the vinyl glazing bulb into LiteSpace extrusions before they are installed.
  - The factory may have preinstalled your glazing bulb for an additional cost.
- LiteSpace uses snap-in glass jamb pockets to accommodate glass installation. These pockets must be considered during the glazing stage.
  - The two sizes of pockets are meant to be placed opposite each other.
  - For consistency, Special-Lite recommends using the deep pocket for the header. The deep pocket on the header or ceiling allows glass to be lifted up and set in bottom channel.
  - Intermediate mullions between sheets of glass require special consideration.
- When butting glass sheets against each other, you can wet glaze or use the polycarbonate I-beam with glazing tape.
- When using the I-beam/glazing tape supplied by us, the glass must be beveled.

## Door Mute

- You **MUST** pull the door mute into LiteSpace extrusions before they are installed.
  - The factory may have preinstalled your door mute for an additional cost.

## Sliding Door Header Reinforcement

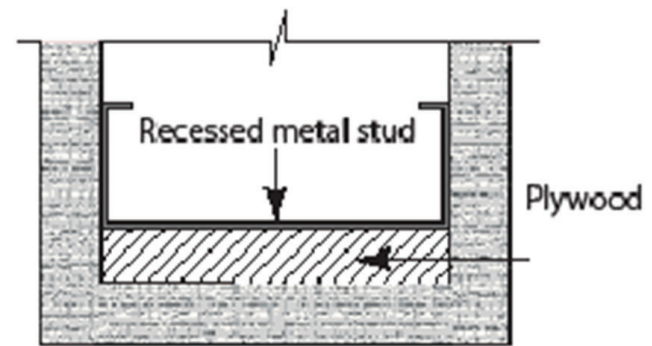
The weight of a hanging, glass-laden door puts significant stress on the header of the opening. The header for a LiteSpace **sliding door application** **REQUIRES** reinforcement.



**WARNING**

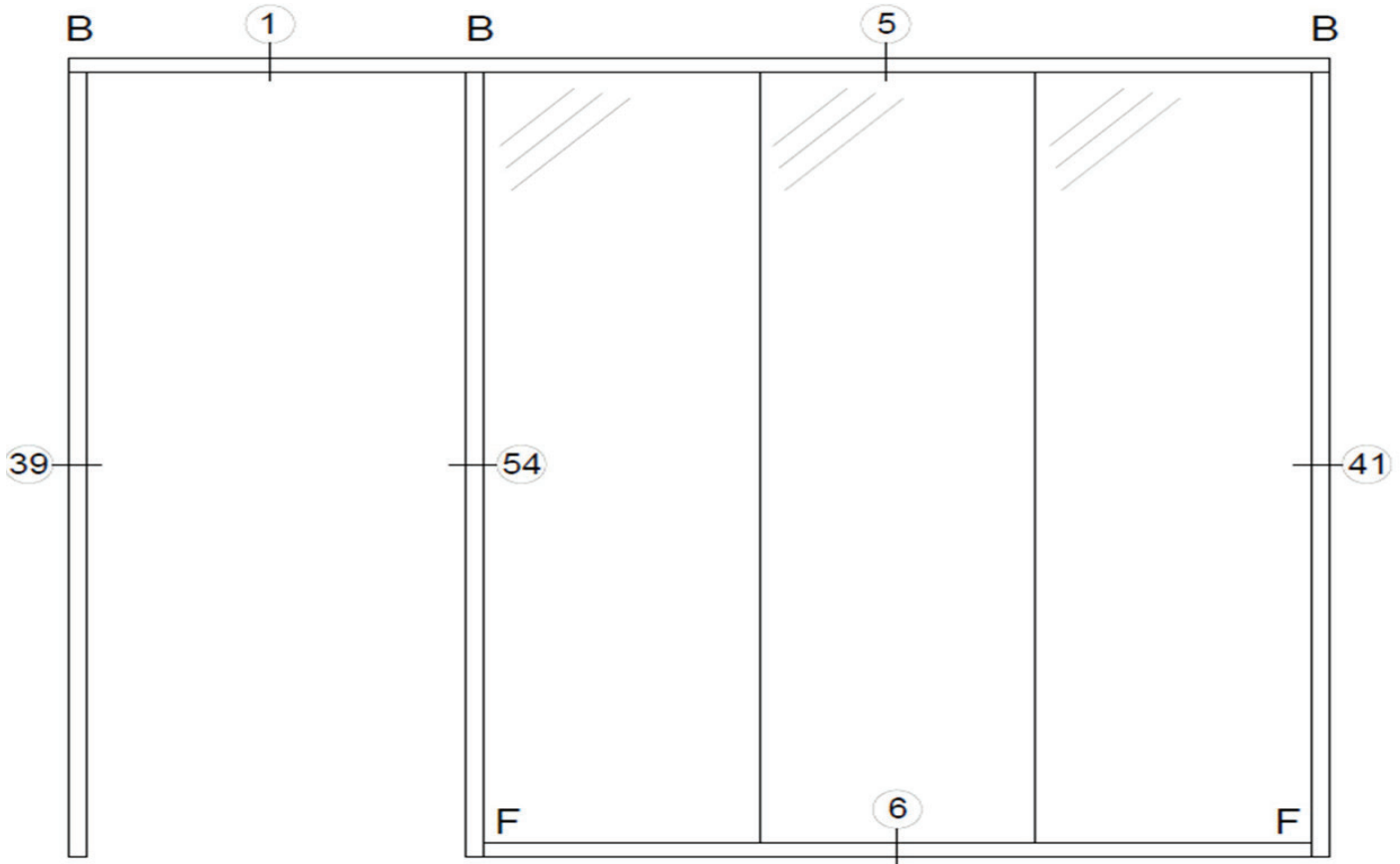
Risk of serious injury or death. Without reinforcement, there is a high risk for falling door and glass.

- Reinforce metal studs with 3/4" plywood (recommended). Please see below.



- Drop ceilings require special consideration. They should be reinforced to handle loads as much as 100 lbs per square foot in the area above the opening.

## LiteSpace Installation: Swing Door with Sidelite



### Parts supplied by Special-Lite:

- SP-038 Base setting channel
- SP-040 H-channel stud
- SP-039 Snap-in door stop
- SP-002 Shallow glazing channel
- SP-003 Deep glazing insert channel
- SP-028 Hinge/latch reinforcement (*factory preinstalled on butt hinges*)
- B-clip Mullion clip
- F-clip Frame vertical to base setting channel
- Glazing bulb (*factory preinstalled or loose*)
- Door mute (*factory preinstalled or loose*)

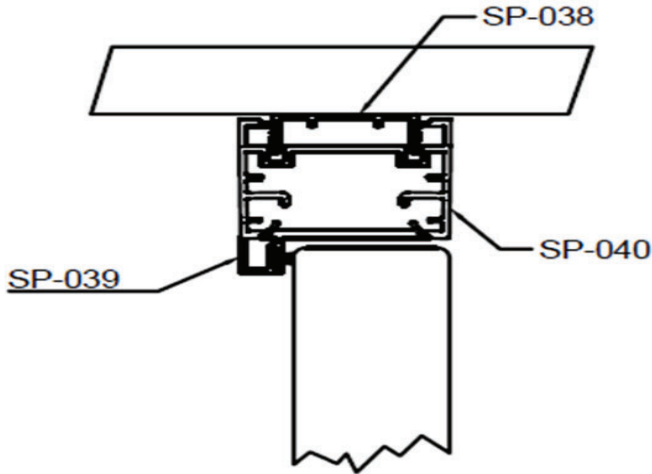
### Tools required:

- Miter saw
- Drill
- Screwdriver
- Screws and/or fasteners
- Spreader bar
- Measuring tape
- Level

### IMPORTANT

- All glazing bulb and door mute materials must be pulled in before installation.
- Notching or inseting parts to leave room for clips will affect glass measurements.

**Step 1: Install horizontal and vertical base setting channels on three sides of opening (see fig. 1).**



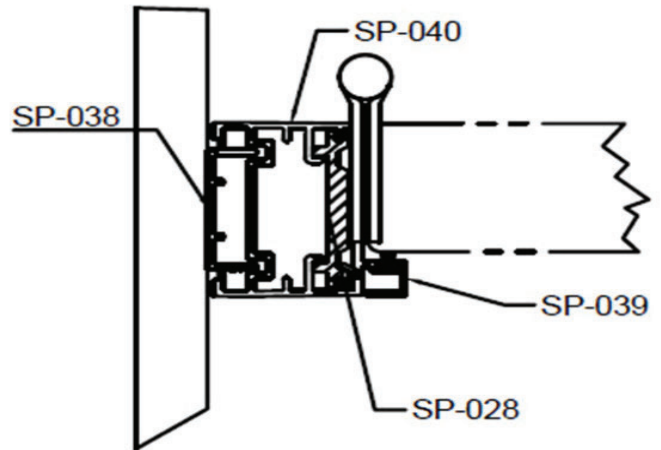
*Figure 1: Detail Drawing 1*

1. Determine size of rough opening.
2. Measure and cut SP-038 to entire width of opening for header, leaving 1.75" at header.
3. Measure and cut SP-038 to desired length for hinge side of door opening, leaving 1.75" for finished floor on bottom.
4. Measure and cut SP-038 to desired length of opposite wall.
5. Secure SP-038 to finished walls.

**Step 2: Install horizontal H-channel stud at header.**

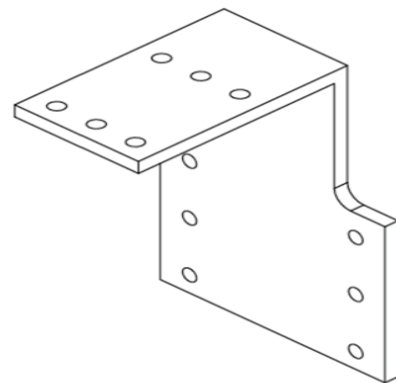
1. Measure and cut SP-040 to entire width of rough opening at header.
2. Snap and secure SP-040 to SP-038 at header.

**Step 3: Install vertical H-channel stud on hinge jamb side of opening (see fig. 2).**



*Figure 2: Detail Drawing 39*

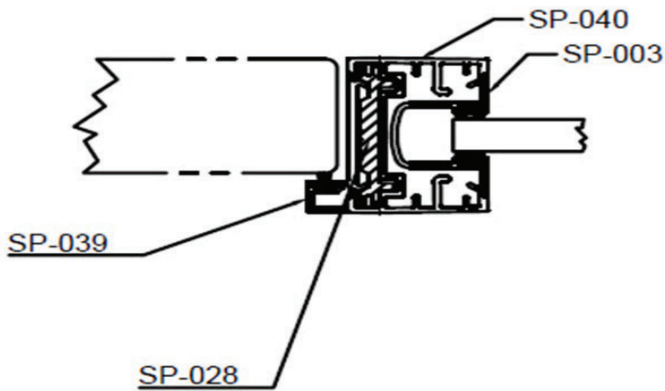
1. Locate corresponding hinge jamb assembly, including SP-040, SP-028, and SP-039.
2. Remove SP-039 from hinge jamb assembly and place to side.
3. Trim top of hinge jamb assembly to achieve correct hinge location.
4. Remove SP-028 from hinge jamb assembly.
5. Trim an additional 2" off top of SP-028 to allow space for B-clip.
6. Reinsert SP-028 into hinge jamb assembly.
7. Measure and cut hinge assembly at bottom to desired length, allowing space for finished floor.
8. Preload B-clip to vertical SP-040 at header (see fig. 3).



*Figure 3: B-clip Mullion Clip*

9. Snap and secure SP-040 to SP-038.
10. Use B-clip to secure vertical SP-040 at header.
11. Countersink fasteners to reinforce attachment of vertical SP-040 to wall.

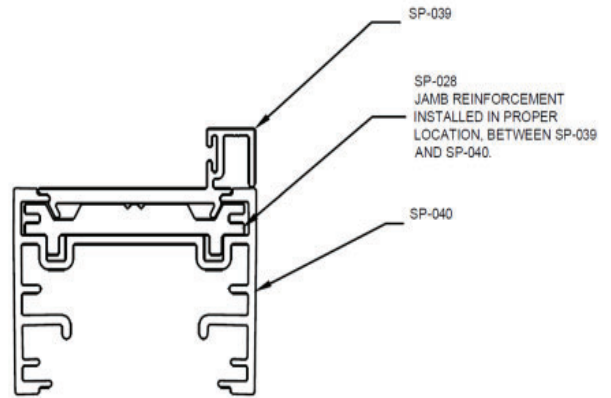
**Step 4: Install vertical H-channel stud on strike jamb side of opening (see fig. 4).**



*Figure 4: Detail Drawing 54*

1. Determine size of door opening.
2. Locate corresponding strike jamb assembly, including SP-040 and SP-039.
3. Remove SP-039 from strike jamb assembly and place to side.
4. Trim top of assembly, to achieve correct strike location.
5. Measure and cut strike jamb assembly at bottom to desired length, allowing space for finished floor.
6. Locate SP-028.
7. Measure and cut SP-028 from top of SP-040 to top strike clip, subtracting 2" to make room for B-clip.
8. Measure and cut SP-028 from bottom of SP-040 to bottom strike clip.

9. Slide SP-028 lengths between SP-039 and SP-040 on corresponding ends of strike jamb (see fig. 5).



*Figure 5: SP-028 placement*

10. Secure latch reinforcement.
  - a. Ensure the bottom of SP-028 is flush with SP-040.
  - b. Using a #29 drill bit, drill holes through SP-028 and SP-040 1" from the bottom of the strike jamb and 3" from the top of the strike jamb.
  - c. Countersink with 82-degree countersink.
  - d. Install #8-18 flat head screws in each hole.
  - e. Using a #29 drill bit, drill holes through SP-028 and SP-040 1" below and 1" above strike clips.
  - f. Repeat steps 9c-9d in each hole drilled.
  - g. Drill through SP-028 and SP-040, countersink, and install #8-18 flat head screws every 12".
11. Preload B-clip to vertical SP-040 at header.
12. Use B-clip to secure vertical SP-040 to horizontal SP-040 at header.

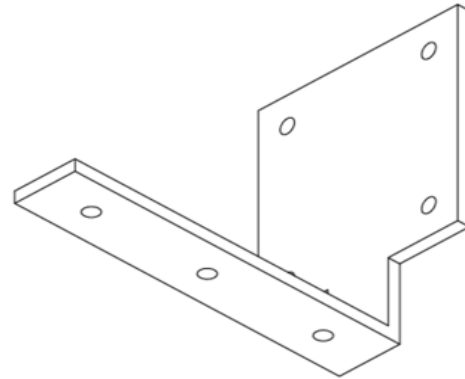
**Step 5: Install door stops.**

1. Measure SP-039 to desired width for door at header.
2. Cut both ends of horizontal SP-039 at 45-degree angle.



4. Snap horizontal SP-039 to horizontal SP-040 at header.
5. Ensure prep location on hinge assembly (SP-040, SP-028, and SP-039) is aligned.
6. Measure SP-039 to desired length for hinge side of door, allowing space for finished floor at bottom.
7. Cut vertical SP-039 at 45-degree angle at header.
6. Snap vertical SP-039 to vertical SP-040 on hinge side of door.
7. Repeat steps 4-6 on strike jamb side of door, ensuring that strike preps are aligned.

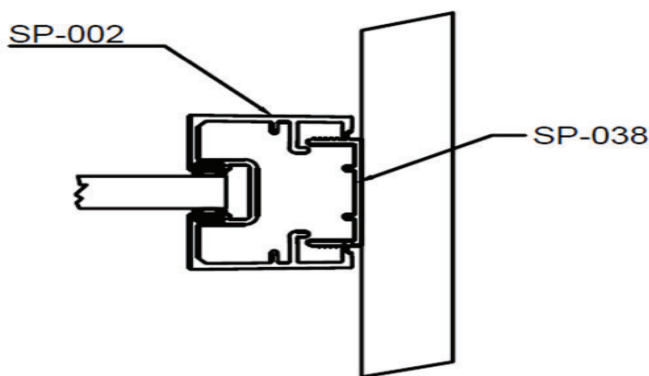
3. Preload F-clip at bottom of SP-002 at end of opening (see fig. 7).



*Figure 7:* F-clip frame vertical to base setting channel

4. Snap SP-002 to SP-038 at end of opening.
5. Use B-clip to secure SP-002 to SP-040 at header.

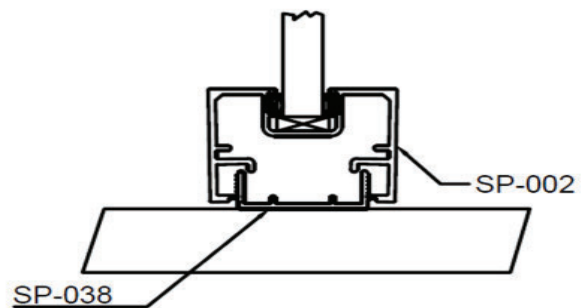
**Step 6: Install shallow glazing channel to end of opening (see fig. 6).**



*Figure 6:* Detail Drawing 41

1. Measure and cut SP-002 to desired length.
2. Preload B-clip to SP-002 at header.

**Step 7: Install base receiving channel and shallow glazing channel at sill (see fig. 8).**



*Figure 8:* Detail Drawing 6

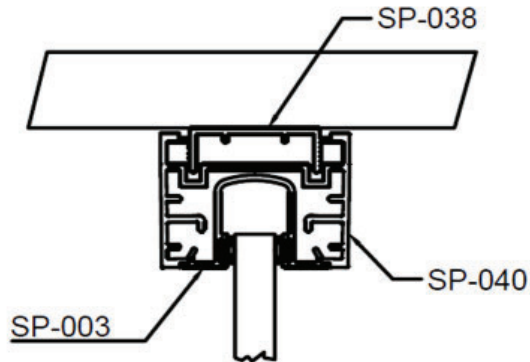
### IMPORTANT

All glazing bulb and door mute materials must be pulled in before installation.

1. Measure width between SP-040 on strike jamb side of door and SP-002 on end of opening.
2. Cut SP-038 and SP-002 to desired width.
3. Use preloaded F-clips on SP-040 on strike jamb side of door and on SP-002 at end of opening to align and secure horizontal SP-038.

4. Install additional anchors every 18" on center.
5. Snap horizontal SP-002 to SP-038 at floor.

**Step 8: Install horizontal deep glazing insert channel at header (see fig. 9).**



*Figure 9:* Detail Drawing 5

1. Measure width between vertical SP-040 on strike jamb side of door and SP-002 on end of opening.
2. Cut horizontal SP-003 to desired width.
3. Snap and secure horizontal SP-003 to horizontal SP-040 at header.

**Step 9: Install vertical deep glazing insert channel to left side of sidelite.**

1. Measure Daylight Opening (DLO) at sill to underside of header.
2. Trim SP-003 to desired width.
3. Notch or inset SP-003 to make room for clips.
4. Snap SP-003 to backside of strike jamb.