

Window Surround Attachments

How to attach a window surround to a Wood structure using L-Clips, Straps, Pins, wire, lintel and screws

Example: Strap

Example: Pin

Example: L-Clip

Example: Strap

Example: Strap

Example: L-Clip

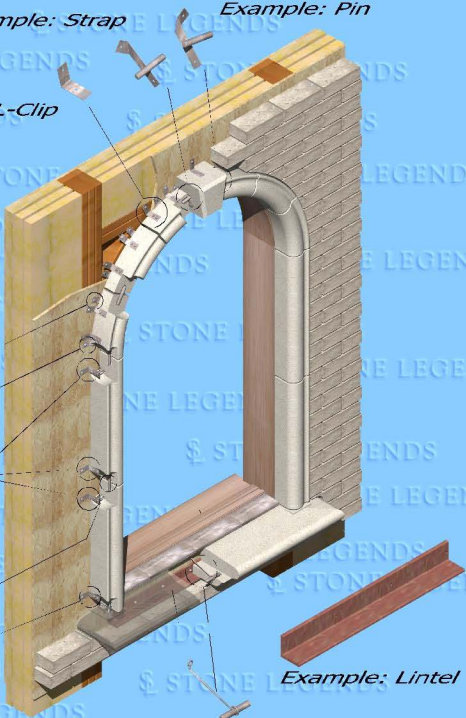
Example: Mortared Pin

Example: L-Clip

Example: Lintel

Example: Pin & Wire

Example Circle Top Surround



Hollow Column Attachments

Attaching hollow columns to steel inner columns using Pins, Wire, Brackets, L-Clips and Tapcon Screws

Sq Tube
with L-Clip
& Screws

Pipe
with Pins
& Wire

I Beam
with L-Clip
& Screws

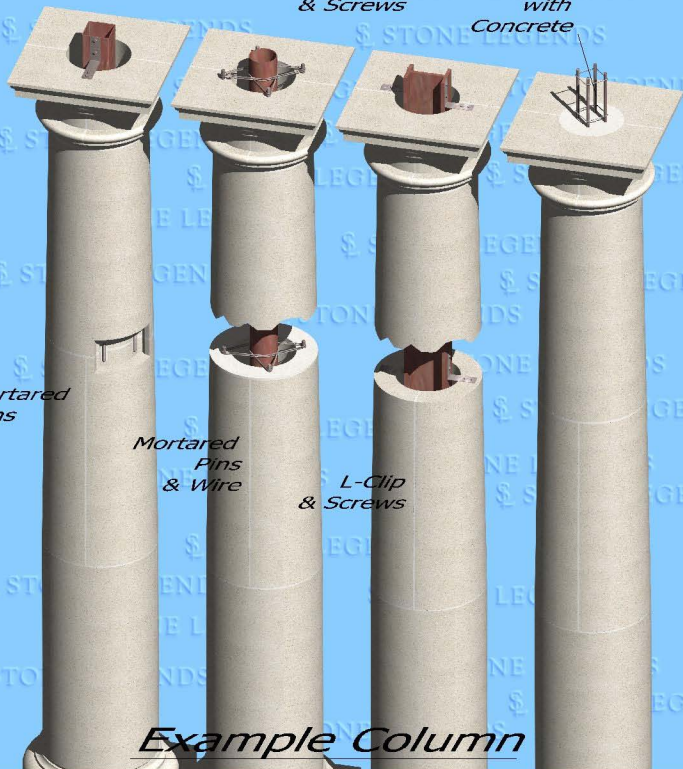
Rebar
with
Concrete

Mortared
Pins

Mortared
Pins
& Wire

L-Clip
& Screws

Example Column



Attachments for Spanned Beam

Attaching soffit stones to a steel beam on a Spanned entry using pins, brackets and 2 way clips

It is important that water be diverted away from the internal structure, especially wood beams. The floor was raised to a higher elevation to achieve this goal. Flashing was also installed to protect the wood in case of a water leak. Paint all steel with red oxide paint to protect against rust.

Kerf the stone and insert the gutter lip into groove.

Mortared Pin

Mortared Pin

Kerf Stone as shown

2 Way Clip

Pin

Soffit

I Beam

Pin

Flashing

2 Way Clip

Kerf Stone as shown

Example Entry

There are various types of attachments that can be used to secure stone to a spanned structure. Examples shown are 2 way clips and pins.

Banding Attachment

Attaching Banding/Entablature to a steel structure using Angle Iron, Round bar spacers, pins and wire

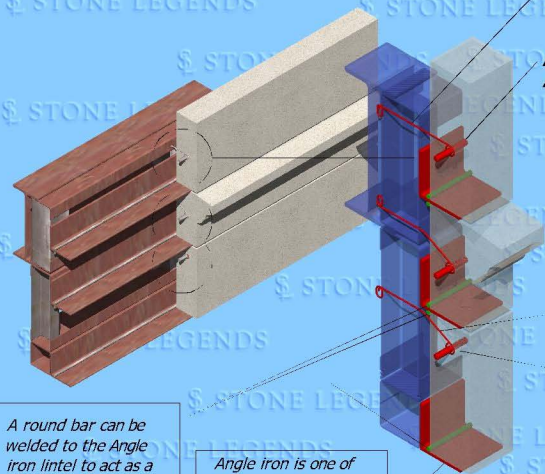
Optional wood frame uses alternative fasteners but the basics are the same

Example:
Wire

Example:
Pin

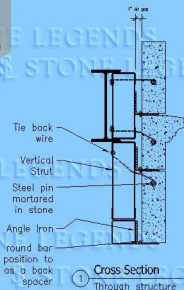
Example:
Wire

Example:
Pin



A round bar can be welded to the Angle iron lintel to act as a backstop so that the correct setting line offset can be achieved. (See explanation on **Setting Line**) Other materials such as wood blocks, plastic spacers or a dab of mortar can be used behind the stone to achieve the same result.

Angle iron is one of the most efficient lintels that can be used to carry stone. Stone can be carried on top of the lintel if the lintel can be hidden or a slot can be kerfed in the back of the stone to hide the lintel.



Example Banding

Hanging Ceiling Attachments

Attaching a stone ceiling to wood beams using weld plates, threaded inserts and 2 way clips

A coffered ceiling is an attractive alternative to a hung ceiling. Note that the beams are deeper and that the ceiling sits on top of the profiled stone sections. This method is relatively easy and provides more freedom to hang the ceiling stones.

Angle Iron w Slots

Weld Plate

Note: weld plate was turned upside down to reveal the insert.

Threaded Insert

Deadwood w Slots Washers, Spacers and Threaded Inserts

Deadwood is one of the preferred methods to hang stone. It provides more freedom to move the stone, especially if the holes are slotted. Never place tension between the stone and deadwood by over tightening the bolts when a spacer is not used. The bolts can be used to adjust and level all stones to the correct elevation. The bolts need to be secured to prevent future turning.

There are various types of attachments that can be used to attach a stone ceiling. The best methods require the insertion if a Threaded insert or Weld plate embedded into the stone. These can be bolted or welded to the carrying structure.

Example Entry