SHORT SPAN LINTELS—WINDOW OPENINGS — USING RECEPTORS

(3 OPTIONS FOR THE CMU BACK-UP)

NOTE: MASONRY Lintel MAY BE PRECAST OR FIELD ASSEMBLED

LADDER TYPE HORIZONTAL JOINT REINFORCED O.C.
W/ADJUSTABLE VENEER TIES
8" LIGHTWEIGHT CMU BACK-UP
1 1/2" x 1/8" CONT. TERMINATION BAR W/ SEALANT
LINTEL UNIT (W/ REINF. PER STRUCTURAL DESIGN) GROUTED SOLID
SEALANT
RECEPTOR FRAMING
HIGH EFFICIENCY ALUM. WINDOW FRAME

3A
MASONRY Lintel (PREFERRED)

4" RIGID INSULATION
4" BRICK (CLAY) VENEER
FLEXIBLE MEMBRANE FLASHING
2x6 TREATED WOOD NAILER
DRAINAGE MATERIAL
2 1/2" RIGID INSUL (FIT TO SUPPORT FLASHING)
WEEPS
TWO-PIECE FLASHING (SEE DETAIL 6D, SHEET A-7)
GALVANIZED ANGLE ("LOOSE") STEEL Lintel

3C
PRE-CAST CONCRETE Lintel

LADDER TYPE HORIZONTAL JOINT REINFORCED O.C.
W/ADJUSTABLE VENEER TIES
8" LIGHTWEIGHT CMU BACK-UP
1 1/2" x 1/8" CONT. TERMINATION BAR W/ SEALANT
SEALANT (BOTH SIDES)
RECEPTOR FRAMING
HIGH EFFICIENCY ALUM. WINDOW FRAME

3B
STEEL ANGLE Lintel

LADDER TYPE HORIZONTAL JOINT REINFORCED O.C.
W/ADJUSTABLE VENEER TIES
8" LIGHTWEIGHT CMU BACK-UP
1 1/2" x 1/8" CONT. TERMINATION BAR W/ SEALANT
SEALANT (BOTH SIDES)
RECEPTOR FRAMING
HIGH EFFICIENCY ALUM. WINDOW FRAME

4" RIGID INSULATION
4" BRICK (CLAY) VENEER
FLEXIBLE MEMBRANE FLASHING
2x6 TREATED WOOD NAILER
DRAINAGE MATERIAL
2 1/2" RIGID INSUL. (FIT TO SUPPORT FLASHING)
WEEPS
TWO-PIECE FLASHING (SEE DETAIL 6D, SHEET A-7)
GALVANIZED ANGLE ("LOOSE") STEEL Lintel

NOTE:
UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT-BASED MATERIALS AND INFLICT DAMAGE. SEE PCA "MASONRY TODAY" VOLUME II, NO. 1 FOR RECOMMENDATIONS.

www.cement.org/masonry/cc_al_frames.ssp
NOTE: UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT-BASED MATERIALS AND INCUR DAMAGE. SEE PCA "MASONARY TODAY" VOLUME II, NO. 1 FOR RECOMMENDATIONS.
www.cement.org/masonry/cc_al_frames.ssp

NOTE: MASONRY LINTEL MAY BE PRECAST OR FIELD ASSEMBLED

LADDER TYPE HORIZONTAL
JOINT REINF@16"O.C.
W/ADJUSTABLE VENEER TIES

8" LIGHTWEIGHT CMU BACK-UP

1 1/4" x 1/8" CONT. TERMINATION BAR
W/ SEALANT

LINTEL UNIT
(W/ REINF. PER STRUCTURAL DESIGN)
GRouted SOLID

BREAK METAL (OR OTHER ARCH. TREATMENT)

STRAP ANCHOR

HIGH EFFICIENCY ALUM. WINDOW FRAME

MASONRY LINTEL (PREFERED)

3A

4" RIGID INSULATION

4" BRICK (CLAY) VENEER

FLEXIBLE MEMBRANE FLASHING

DRAINAGE MATERIAL

RIGID INSULATION

WEEPS

TWO-PIECE FLASHING (SEE DETAIL 6D, SHEET A-7)

GALVANIZED ANGLE ("LOOSE") STEEL LINTEL

SEALANT (BOTH SIDES)

3C

PRE-CAST CONCRETE LINTEL

LADDER TYPE HORIZONTAL
JOINT REINF@16"O.C.
W/ADJUSTABLE VENEER TIES

8" LIGHTWEIGHT CMU BACK-UP

1 1/4" x 1/8" CONT. TERMINATION BAR
W/ SEALANT

PRECAST CONCRETE LINTEL

STRAP ANCHOR

HIGH EFFICIENCY ALUM. WINDOW FRAME

BREAK METAL (OR OTHER ARCH. TREATMENT)

3B

STEEL ANGLE LINTEL

LADDER TYPE HORIZONTAL
JOINT REINF@16"O.C.
W/ADJUSTABLE VENEER TIES

8" LIGHTWEIGHT CMU BACK-UP

1 1/4" x 1/8" CONT. TERMINATION BAR
W/ SEALANT

DOUBLE ANGLE ("LOOSE") STEEL LINTEL

STRAP ANCHOR

HIGH EFFICIENCY ALUM. WINDOW FRAME

BREAK METAL (OR OTHER ARCH. TREATMENT)

3A  3B  3C

SHORT SPAN LINTELS - WINDOW OPENINGS - USING STRAP ANCHORS

(3 OPTIONS FOR THE CMU BACK-UP)

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TITLE: ALTERNATE SHORT SPAN LINTEL DETAILS - WINDOWS
SHEET: A-4.1
NOTE:
UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT-BASED MATERIALS AND INGREDIENTS. SEE PCA "MASONRY TODAY" VOLUME II, NO. 1 FOR RECOMMENDATIONS.
www.cement.org/masonry/cc_al_frames.asp

NOTE: MASONRY LINTEL MAY BE PRECAST OR FIELD ASSEMBLED

LADDER TYPE HORIZONTAL JOINT REINF. @ 16" O.C.
W/ADJUSTABLE VENEER TIES

1 1/4" x 1/8" CONT.
TERMINATION BAR
W/ SEALANT

8" LIGHTWEIGHT CMU
BACK-UP

LINTEL UNIT
W/ REINF. PER
STRUCTURAL DESIGN
GROUTED SOLID

DOOR FRAME

MASONRY LINTEL (PREFERRED)

A-1

PRE-CAST CONCRETE LINTEL

A-1

STEEL ANGLE LINTEL

A-1

SHORT SPAN LINTELS—DOOR OPENINGS

(3 OPTIONS FOR THE CMU BACK-UP)

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LONG SPAN LINTELS
(3 OPTIONS FOR WINDOWS, MAN DOORS & OVERHEAD DOORS)

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When a joint is to be used at a small opening, locate at one side of the opening.

Locate joints at both edges of large openings for a one piece steel lintel.

Joints may be located away from edge of multiple wall openings if the joints on both sides are symmetrically placed.

Brick expansion joints—placement location

Elevation view

Max expansion joint spacing (typically 20'-0"

Stainless steel horizontal joint reinforcement (per structural design)

Provide sealant joints at the toe of the flashing support angle. Also include backer rod at the ends of the flashing support angle (see BIA TEC NOTE 18A, FIGURE 6 FOR ADDITIONAL INFORMATION).

Joints symmetrically located away from edge of wall openings

Brick expansion joints—placement locations with "reinforced brick lintel openings" (preferred)
WALL AIR CONTROL LAYER ("AIR BARRIER") OPTIONS

- Paint on the interior face of the CMU back-up
  (full height of the wall, including above any suspended ceilings).

- Sealant applied to all joints and terminations of the rigid insulation located in the wall cavity.

- Liquid or membrane applied proprietary systems.

WALL CONTROL LAYER NOTES

1) The inclusion of an air control layer is essential for a high performance building. Several products and options are available, with differing levels of cost and complexity. Some of the more common systems are listed above for the building designer to evaluate for the particular project requirements.

2) The need and design of a vapor control layer should also be considered by the building designer, especially for high humidity and humidity sensitive environments.

3) Building designer shall consider interfacing of wall control layers to other components of the building envelope (roof, foundation, openings, etc.).