HIGH PERFORMANCE CAVITY WALL (3" RIGID INSULATION) (8" CMU W/ BRICK VENEER)

HIGH PERFORMANCE QUALITIES

- ARCHITECTURAL
- STRUCTURAL
- ENERGY
- FIRE
- SOUND
- MOISTURE
- AIR

FOR ADDITIONAL INFORMATION ON HIGH PERFORMANCE QUALITIES OF MASONRY CAVITY WALLS, SEE "MASS BENEFITS"

NOTES:
1) A NOMINAL WALL ASSEMBLY THICKNESS OF 1" - 4" IS SHOWN FOR MODULARITY, BUT THE DETAILS CAN BE MODIFIED TO ACCOMMODATE USER DESIRED VARIATIONS IN OVERALL WALL THICKNESS AS WELL AS VARIATIONS IN INSULATION AND AIR SPACE THICKNESS (A 1" MINIMUM AIR SPACE IS MANDATED BY CODE).
NOTES
1) CMU BELOW GRADE SHALL BE MEDIUM OR NORMAL WEIGHT.
2) FOR ADDITIONAL INFORMATION ON BASE FLASHING, SEE M.I.M. FAQ #22

BASE DETAIL W/ VENEER ABOVE GRADE

A-2
NOTE:
UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT-BASED MATERIALS AND INCUR DAMAGE. SEE PCA "MASONRY TODAY" VOLUME II, NO. 1 FOR RECOMMENDATIONS.
www.cement.org/masonry/cc_al_frames.asp

NOTE: MASONRY LINTEL MAY BE PREFABRICATED OR FIELD ASSEMBLED

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

8" CMU BACK-UP

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

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

SEALANT (BOTH SIDES)
W/ BACKER ROD / BOND BREAKER

RECEPTOR FRAMING
THERMALLY BROKEN ALUM. WINDOW FRAME

SECTION VIEW

3" (MIN. R-15) RIGID INSULATION, NOTCH AT TERMINATION BAR

4" BRICK (CLAY) VENEER

FLEXIBLE MEMBRANE FLASHING W/ END DAMS

2x6 FIRE RETARDANT TREATED WOOD NAILED

HD MINERAL WOOL (MIN. 8 SPF) TIGHT TO LINTEL

DRAINAGE MESH

WEEPS @ MAX. 32" O.C.

TWO-PIECE FLASHING (SEE DETAIL 60, SHEET A-7)

GALVANIZED STEEL ANGLE ("LOOSE") LINTEL

SHORT SPAN MASONRY LINTEL FOR RECEPTOR STYLE WINDOWS
(PREFERRED DETAIL)

A-4.1

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

SECTION VIEW

3" (MIN. R=15) RIGID INSULATION, NOTCH AT TERMINATION BAR
4" BRICK (CLAY) VENEER
FLEXIBLE MEMBRANE FLASHING W/ END DAMS
HD MINERAL WOOL (MIN. 8 PCF) "TIGHT TO LINTEL"
2x6 FIRE RETARDANT TREATED WOOD NAILED
DRAINAGE MESH
WEEPS @ MAX. 32" O.C.
TWO-PIECE FLASHING (SEE DETAIL 60, SHEET A-7)
GALVANIZED STEEL ANGLE ("LOOSE") LINTEL

8" CMU BACK-UP
1 1/4" x 1/8" CONT. TERMINATION BAR W/ SEALANT
PRECAST CONCRETE LINTEL
SEALANT (BOTH SIDES) W/ BACKER ROD/BOND BREAKER
RECEPTOR FRAMING
THERMALLY BROKEN ALUM. WINDOW FRAME

1'-4" (NOM.)

ISOMETRIC VIEW

SHORT SPAN PRE-CAST LINTEL FOR RECEPTOR STYLE WINDOWS

3C
A-1

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NOTE: MASONRY LINTEL MAY BE PREFABRICATED OR FIELD ASSEMBLED

SECTION VIEW

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

LADDER TYPE HORIZONTAL JOINT REINF. @ 16" O.C.

W/ADJUSTABLE VENEER ANCHORS

8" CMU BACK-UP

1ST (MIN. R-15) RIGID INSULATION, NOTCH AT TERMINATION BAR

4" BRICK (CLAY) VENEER

FLEXIBLE MEMBRANE FLASHING W/ END DAMS

DRAINAGE MESH

28 Ga. MILL GALVANIZED METAL "L"-SHAPED FLASHING SUPPORT

MINERAL WOOL INSUL.

TIGHT TO LINTEL

WEEPS @ MAX. 32" O.C.

TWO-PIECE FLASHING (SEE DETAIL 60, SHEET A-7)

BREAK METAL (OR OTHER ARCH. TREATMENT)

STRAP ANCHOR

THERMALLY BROKEN ALUM. WINDOW FRAME

SHORT SPAN MASONRY LINTEL FOR STRAP STYLE WINDOWS

ISOMETRIC VIEW

A-1

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NOTE:
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www.cemint.org/masonry/cc_al_frames.asp

ISOMETRIC VIEW

SHORT SPAN STEEL LINTEL
FOR STRAP STYLE WINDOWS

SECTION VIEW

3E (MIN. R-15) RIGID INSULATION, NOTCH AT TERMINATION BAR
4" BRICK (CLAY) VENEER
FLEXIBLE MEMBRANE FLASHING W/ END DAMS
DRAINAGE MESH
28 Ga MILL GALVANIZED METAL "L"-SHAPED FLASHING SUPPORT
MINERAL WOOL INSUL. TIGHT TO LINTEL
WEEPS • MAX. 32" O.C.
TWO-PIECE FLASHING (SEE DETAIL 60, SHEET A-7)
CALZANIZED STEEL ANGLE ("LOOSE") LINTEL
SEALANT (BOTH SIDES) W/ BACKER ROD/ BOND BREAKER

1'-'4" (NOM.)

3E DMU BACK-UP
1 1/4" x 1/8" CONT. TERMINATION BAR W/ SEALANT
STEEL DOUBLE ANGLE (LOOSE) LINTEL
BREAK METAL (OR OTHER ARCH. TREATMENT)
STRAP ANCHOR
THERMALLY BROKEN ALUM. WINDOW FRAME

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NOTE:
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www.cement.org/masonry/cc_al_frames.asp

SECTION VIEW

3" (MIN. R-15) RIGID INSULATION, NOTCH AT TERMINATION BAR
4" BRICK (CLAY) VENEER
FLEXIBLE MEMBRANE FLASHING W/ END DAMS
DRAINAGE MESH
28 Ga. MILL GALVANIZED
28 Ga. MILL GALVANIZED METAL "L"-SHAPED FLASHING SUPPORT
MINERAL WOOL INSUL.
MINERAL WOOL INSUL. TIGHT TO LINTEL
TWO-PIECE FLASHING (SEE DETAIL 6D, SHEET A-1)
WEEPS @ MAX. 32" O.C.
WEEPS @ MAX. 32" O.C.
CALCINED STEEL ANGLE ("LOOSE") LINTEL
SEALANT (BOTH SIDES)
SEALANT (BOTH SIDES) W/ BACKER ROD/BOND BREAKER

ISOMETRIC VIEW

LADDER TYPE HORIZONTAL JOINT REINF @ 16" O.C.
LADDER TYPE HORIZONTAL JOINT REINF @ 16" O.C.
W/ADJUSTABLE VENEER ANCHORS
W/ADJUSTABLE VENEER ANCHORS
8" CMU BACK-UP
8" CMU BACK-UP
1 1/4" X 1 1/8" CONT. TERMINATION BAR W/ SEALANT
1 1/4" X 1 1/8" CONT. TERMINATION BAR W/ SEALANT
PRECAST CONCRETE LINTEL
PRECAST CONCRETE LINTEL
BREAK METAL (OR OTHER ARCH. TREATMENT)
BREAK METAL (OR OTHER ARCH. TREATMENT)
STRAP ANCHOR
STRAP ANCHOR
THERMALLY BROKEN ALUM. WINDOW FRAME
THERMALLY BROKEN ALUM. WINDOW FRAME

SHORT SPAN PRE-CAST LINTEL
SHORT SPAN PRE-CAST LINTEL
FOR STRAP STYLE WINDOWS
FOR STRAP STYLE WINDOWS

3F
3F
A-1
A-1

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www.cement.org/masonry/cc_d_frames.asp

ISOMETRIC VIEW

SHORT SPAN STEEL LINTEL FOR DOOR OPENING

SECTION VIEW

1 1/4" x 1/8" CONT. TERMINATION BAR W/ SEALANT
LADDER TYPE HORIZONTAL JOINT REINF. @ 16" O.C. W/ ADJUSTABLE VENEER ANCHORS
8" CMU BACK-UP
STEEL DOUBLE ANGLE (LOOSE) LINTEL
GROUT FILLED DOOR FRAME

1'-4" (NOM.)

4" BRICK (CLAY) VENEER
3" (MIN. R=15) RIGID INSULATION, NOTCH AT TERMINATION BAR
FLEXIBLE MEMBRANE FLASHING W/ END DAMS
28 GA MILL GALVANIZED METAL "L"-SHAPED FLASHING SUPPORT
DRAINAGE MESH
MINERAL WOOL INSUL. TIGHT TO LINTEL
WEEPS MAX. 32" O.C.
TWO-PIECE FLASHING (SEE DETAIL 6D, SHEET A-7)

CALIFONIA STEEL DOUBLE ANGLE ("LOOSE") LINTEL
SEALANT (BOTH SIDES) W/ BACKER ROD/BOND BREAKER

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NOTES:

1) FOR ADDITIONAL INFORMATION ON THE
   REINFORCED BRICK LINTEL DEPICTED IN THIS
   DETAIL, SEE DETAIL 9B ON SHEET A-10.

2) UNPROTECTED ALUMINUM DOOR
   AND WINDOW FRAMES CAN INTERACT WITH
   CEMENT-BASED MATERIALS AND INCUR DAMAGE.
   SEE PCA “MASONRY TODAY” VOLUME II,
   NO. 1 FOR RECOMMENDATIONS.
   www.cement.org/masonry/cc_al_frames.asp

3) TO ACHIEVE SOLID GROUTING DO NOT USE JAMB
   UNITS. USE OPEN BOTTOM UNITS OR FLANGE
   UNITS W/ HEAD JOINTS GROUTED SOLID.
NOTES:

1) FOR ADDITIONAL INFORMATION ON THE
REINFORCED BRICK LINTEL DEPICTED IN THIS
DETAIL, SEE DETAIL 9B ON SHEET A–10.

2) UNPROTECTED ALUMINUM DOOR
AND WINDOW FRAMES CAN INTERACT WITH
CEMENT-BASED MATERIALS AND INCUR DAMAGE.
SEE PCA "MASONRY TODAY" VOLUME II,
No. 1 FOR RECOMMENDATIONS.
www.cement.org/masonry/cc_al_frames.asp

3) TO ACHIEVE SOLID GROUTING DO NOT USE JAMB
UNITS. USE OPEN BOTTOM UNITS OR FLANGE
UNITS W/ HEAD JOINTS GROUTED SOLID.

SECTION VIEW

ISCOETRIC VIEW

LONG SPAN MASONRY LINTEL FOR
OPENING WITH MULTIPLE PEDESTRIAN DOORS

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1) FOR ADDITIONAL INFORMATION ON THE REINFORCED BRICK UNTEL DEPICTED IN THIS DETAIL, SEE DETAIL 99 ON SHEET A–10.

2) UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT–BASED MATERIALS AND INCUR DAMAGE. SEE PCA “MASONRY TODAY” VOLUME II, NO. 1 FOR RECOMMENDATIONS.

www.cement.org/masonry/cc_al_frames.asp

3) TO ACHIEVE SOLID GROUTING DO NOT USE JAMB UNITS, USE OPEN BOTTOM UNITS OR FLANGE UNITS W/ HEAD JOINTS GROUTED SOLID.

SECTION VIEW

1 1/4" x 1/8" CONT. TERMINATION BAR WITH SEALANT
LADDER TYPE HORIZONTAL JOINT REINF.: @ 16" O.C. W/ADJUSTABLE VENEER ANCHORS
8" CMU BACK-UP
GROUT SOLID (IN ONE LIFT) TOTAL NUMBER OF COURSES REQUIRED PER STRUCTURAL DESIGN (2 COURSES DEPICTED IN THIS DETAIL) SEE NOTE #3
LINTEL UNIT W/ REINF. PER STRUCTURAL DESIGN
28 Ga. MILL GALVANIZED METAL "L"-SHAPED FLASHING SUPPORT
10" STEEL CHANNEL JAMB (BEYOND)

4" BRICK (CLAY) VENEER
3" (MIN. R=15) RIGID INSULATION, NOTCH AT TERMINATION BAR
FLEXIBLE MEMBRANE FLASHING W/ END DAMS
DRAINAGE MESH
STAINLESS STEEL HORIZONTAL JOINT REINFORCEMENT (PER STRUCTURAL DESIGN) (SEE DETAIL 99, SHEET A–10.2)
WEEPS @ MAX. 32" O.C.
TWO-PIECE FLASHING (SEE DETAIL 60, SHEET A–7)
GALVANIZED Steel DOUBLE ANGLE ('LOOSE') LINTEL
MINERAL WOOL INSUL. TIGHT TO LINTEL

ISOMETRIC VIEW

LONG SPAN MASONRY LINTEL FOR OVERHEAD DOOR OPENING

5C
A–1

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NOTES:

1) UNPROTECTED ALUMINUM DOOR AND WINDOW FRAMES CAN INTERACT WITH CEMENT-BASED MATERIALS AND INCUR DAMAGE. SEE PCA "MASONRY TODAY" VOLUME II, NO. 1 FOR RECOMMENDATIONS. www.cement.org/masonry/cc_el_frames.asp

2) BRICK ANCHORS SHALL BE PRESENT WITHIN 12" OF JAMB ENDS

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STONE/PRECAST SILL FOR STRAP STYLE WINDOWS

4" BRICK (CLAY)
VENIER RETURN
AT JAMB

ANCHOR (IN
HEAD JOINT)

STONE OR PRECAST
WINDOW SILL

FLEXIBLE MEMBRANE
FLASHING WITH
END DAMS

ORIP IN SILL

WEEPS (IN BED OR HEAD
JOINTS) @ 32" O.C. MAX.

CONTINUOUS GALVANIZED
ANGLE W/ PVC SHIM(S)
ON BACK OF ANGLE

3" (MIN. R-15)
RIGID INSULATION

CMU BEYOND
THERMALLY BROKEN-
ALUM. WINDOW FRAME

STRAP ANCHOR

TURN FLASHING UP
BEHIND STOOL

STOOL

GROUT CMU
SOLID BENEATH STOOL

LADDER TYPE HORIZONTAL
CMU JOINT REINF. @ 16"
O.C. W/ADJUSTABLE
VENIER ANCHORS

8" CMU BACK-UP

SECTION VIEW

Section A-8.2

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NOTES TO DESIGN PROFESSIONAL:

1) DETAIL "B6" WILL ACHIEVE UP TO A 4 HOUR FIRE RATING, DETAIL "B8" WILL ACHIEVE UP TO A 2 HOUR FIRE RATING.

2) IT IS USUALLY NOT NECESSARY TO INSTALL VERTICAL REBAR IN BOTH OF THE CELLS ADJACENT TO THE CONTROL JOINT. IT IS EVEN POSSIBLE THAT DOING SO CAN INTERFERE WITH THE FUNCTION OF THE CONTROL JOINT. HOWEVER, FOR WALLS RESISTING IN-PLANE SHEAR, SUCH REINFORCEMENT MAY BE REQUIRED DUE TO SEEING PRESCRIPTIVE REQUIREMENTS AND/OR STRUCTURAL LOADING.

3) THERE IS USUALLY NO NEED FOR BRICK EXPANSION JOINTS TO ALIGN DIRECTLY WITH CONTROL JOINT LOCATIONS IN THE CMU BACK-UP.

BRICK EXPANSION JOINT (EJ)

EJ A-1

CONTINUOUS HORIZONTAL STEEL REINFORCEMENT

BOND BEAM UNITS (OMIT C.U. AT BOND BEAM)

CONTROL JOINT

OPEN JOINT TO RECEIVE BACKER ROD & SEALANT (AT OUTBOARD SIDE)

4" BRICK (CLAY) VENEER

MASONRY CONTROL JOINT @ CONTINUOUS BOND BEAM DETAIL (PER STRUCTURAL REQUIREMENTS)

A-1

CMU BACK-UP CONTROL JOINT – "MICHIGAN TYPE"

A-1

#5 FELT BOND BREAKER, FIT TIGHT TO CORE FACE

GROUT OR MORTAR

RAKE JOINT TO RECEIVE SEALANT, BOTH SIDES

OPEN JOINT TO RECEIVE BACKER ROD & SEALANT (AT OUTBOARD SIDE)

MASSIVE CONTROL JOINT

LEAVE JOINT OPEN TO RECEIVE BACKER ROD AND SEALANT, BOTH SIDES

CMU BACK-UP CONTROL JOINT – "GASKET TYPE"

A-1
9A—NO SLIP PLANE — PREFERRED METHOD

SEE NOTE B & D FOR SPACING

EQUAL

3' MINIMUM FROM OPENING

SEE NOTE B & D FOR SPACING

EQUAL

3' MINIMUM FROM OPENING

NOTES:

1) TYPICALLY EXPANSION JOINTS HAVE BEEN LOCATED AT OR VERY CLOSE TO THE SIDES OF OPENINGS. HOWEVER IT IS PREFERRED FOR EXPANSION JOINTS TO BE LOCATED AWAY FROM THE EDGES OF THE OPENINGS. DETAILS 9A & 90 ILLUSTRATES THE APPLICATION OF THIS APPROACH.

2) SEE BIA TEC NOTE 18A AND "BRICK EXPANSION JOINTS AND WALL OPENINGS" (BY J. GREGG BORCHELT, PE) (PUBLISHED IN "THE STORY POLE" JULY/AUG. 2007 VOL. 38 NO. 4) FOR ADDITIONAL GUIDANCE ON LOCATING EXPANSION JOINTS.

9B—ONE (1) SLIP PLANE

TRADITIONAL METHOD

SEE NOTE B & D FOR SPACING

ONE SLIP PLANE

SEE NOTE B & D FOR SPACING

ONE SLIP PLANE

9C—TWO (2) SLIP PLANES

TRADITIONAL METHOD

SEE NOTE B & D FOR SPACING

TWO SLIP PLANE PLATES

SEE NOTE B & D FOR SPACING

TWO SLIP PLANE PLATES

9 — BRICK VENEER EXPANSION — JOINT LOCATION

FOR OPENINGS 8" OR LESS WITH LOOSE STEEL LINTEL

NOTE:

SEE SHEET A—10.2 FOR DEFINITIONS

NOTES:

1/2" JOINTS:

A) WITHOUT OPENING 25' MAX. (NOT SHOWN)

B) WITH OPENING 20' MAX. SYMMETRICALLY PLACED

3/8" JOINTS:

C) WITHOUT OPENING 20' MAX. (NOT SHOWN)

D) WITH OPENING 15' MAX. SYMMETRICALLY PLACED

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9D - BRICK MASONRY EXPANSION JOINT LOCATION - PREFERRED METHOD

For openings of any size w/ a reinforced brick masonry unit.

NOTES:
1) Typically expansion joints have been located at or very close to the sides of openings. However, it is preferred for expansion joints to be located away from the edges of the openings. Details 9A & 9D illustrates the application of this approach.

2) See BIA TEK Note 18A and "Brick Expansion Joints and Wall Openings" (By J. Gregg Borchelt, PE) (Published in "The Story Pole" July-Aug. 2007 Vol. 38 No. 4) for additional guidance on locating expansion joints.

9E - BRICK VENEER EXPANSION JOINT LOCATION - TRADITIONAL METHOD

For openings greater than 8".

DEFINITIONS:

\[ S_e = \text{Spacing between expansion joints, in. (mm)} \]

\[ W_j = \text{Width of expansion joint, typically the mortar joint width, in. (mm)} \]

\[ C_j = \frac{\text{PercentExtensibilityOfExpansionJointMaterial}}{100} \]

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"CONTROL LAYER" INFORMATION

1) THERMAL CONTROL LAYER:

A) THIS SET OF DETAILS WILL RESULT IN A MASONRY WALL ASSEMBLY WITH A CALCULATED (STEADY STATE) THERMAL VALUE OF APPROXIMATELY R=18.4 (U=.054). THE LARGE THERMAL MASS (TRANSIENT COMPONENT) TYPICAL OF MASONRY CONSTRUCTION WILL PROVIDE A HIGHER EFFECTIVE R-VALUE THAN THE CALCULATED VALUE.

B) THIS SET OF DETAILS CALLS FOR NOMINAL 3" RIGID INSULATION WITH A MINIMUM R OF 15, WHICH WILL SATISFY ASHRE 90.1-2013 MINIMUM R-VALUE FOR INSULATION PRESCRIPTIVE REQUIREMENTS FOR CLIMATE ZONES 5 (Rmin=11.4c) AND ZONE 6 (Rmin=13.3c). ADDITIONALLY, THIS SET OF DETAILS WILL SATISFY THE "ASSEMBLY MAXIMUM U-VALUE REQUIREMENTS FOR ZONE 7 (Umax=0.071) (MICHIGAN RANGES FROM ZONE 5 IN THE SOUTH TO ZONE 7 IN THE NORTH) IN ORDER TO USE THE PRESCRIPTIVE PROVISIONS OF REFERENCED ENERGY CODE, WALL OPENINGS ARE LIMITED TO A MAXIMUM 40% OF GROSS WALL AREA, AND SKYLIGHTS ARE LIMITED TO A MAXIMUM 5% OF THE GROSS ROOF AREA.

2) AIR CONTROL LAYER:

A) THE AIR CONTROL LAYER IS OFTEN REFERRED TO AS AN "AIR BARRIER" (SYSTEM). SEVERAL PRODUCTS AND OPTIONS (SUCH AS LIQUID OR MEMBRANE APPLIED PROPRIETARY SYSTEMS) ARE AVAILABLE, WITH DIFFERING LEVELS OF COST AND COMPLEXITY. PROPRIETARY SYSTEMS ARE AVAILABLE, WITH DIFFERING LEVELS OF COST.

B) THIS SET OF DETAILS REFLECTS AN AIR BARRIER SYSTEM ACHIEVED WITH SPECIFIC MASONRY DETAILING/CONSTRUCTION AND NON-PROPRIETARY COATINGS DESCRIBED IN NOTE C BELOW.

C) THE FOLLOWING NON-PROPRIETARY COATINGS ARE CONSIDERED TO MEET AN AIR LEAKAGE OF LESS THE 0.04 CFM/SQ. FT. & 75 Pa. (SEE NCMA TEK 6-14A FOR ADDITIONAL INFORMATION).

1) PRESCRIPTIVE COMPLIANCE:
   - FULLY GROUTED CMU
   - CMU WALL WITH ONE APPLICATION OF BLOCK FILLER AND TWO APPLICATIONS OF A PAINT OR SEALER COATING
   - CMU WALL WITH A PORTLAND CEMENT/SAND PARGE, STUCCO OR PLASTER WITH A MINIMUM THICKNESS OF 1/2".

2) BY LABORATORY TESTING:
   - 12" CMU SEALED WITH AT LEAST (2) COATS OF COMMERCIAL-GRADE LATEX PAINT.
   - 8" CMU COATED WITH A SINGLE COAT OF HIGH QUALITY LATEX PAINT.
   - 6" CMU COATED WITH A SINGLE COAT OF MASONRY BLOCK FILLER.

3) MOISTURE CONTROL LAYER:

A) THIS DRAINAGE WALL ASSEMBLY INHERENTLY PROVIDES MAXIMUM PROTECTION AGAINST WATER PENETRATION. UNLIKE MANY OTHER WALL SYSTEMS, A SEPARATE WEATHER RESISTIVE BARRIER IS UNNECESSARY.

4) VAPOR CONTROL LAYER:

A) BASED ON MULTIPLE DEW POINT ANALYSES FOR CLIMATE ZONE 5 (INCLUDING INDOOR HUMIDITY CONDITIONS VARYING FROM NON-HUMIDIFIED TO HIGH HUMIDITY), THE DEW POINT IN THIS CAVITY WALL SYSTEM OCCURS ONLY IN THE WET ZONE. THEREFORE A VAPOR CONTROL LAYER IS NOT NECESSARY. CAREFUL CONSIDERATION SHOULD BE GIVEN BEFORE INCLUDING A VAPOR RETARDER.
3" (MIN. R-15) RIGID INSULATION

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

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

8" CMU BACK-UP

5/8" DIA. BRACKET ANCHOR

SEE DETAIL 118/4-13.2 FOR ENLARGED VIEW OF FLASHINGS AND MEMBRANE

RIGID INSULATION BETWEEN BRACKETS, THICKNESS AS REQ'D. TO PROVIDE CONTINUOUS SUPPORT FOR MEMBRANE FLASHING. ALSO 2" MINIMUM RIGID INSULATION INSIDE EACH BRACKET (NOT SHOWN IN ISOMETRIC FOR CLARITY)

4" BRICK (CLAY) VENEER

DRAINAGE MATERIAL

28 Ga. MILL GALVANIZED METAL "L"-SHAPE FLASHING SUPPORT

FLEXIBLE MEMBRANE FLASHING

ANGLE SUPPORT BRACKET

WEEPS @ MAX. 32" O.C.

GALVANIZED STEEL SHELF ANGLE

TWO-PIECE FLASHING

SEALANT

CLEAR SPACE UNDER ANGLE WITH COMRESSIVE FILLER

SECTION VIEW

ISOMETRIC VIEW

11A BRICK LEDGER DETAILS FOR CMU BACK-UP DETAIL

A-13
NOTES:
1) "LOW SLOPE" ROOFS ARE DEFINED AS ROOFS WITH A SLOPE LESS THAN OR EQUAL TO 3:12 (14 DEGREES)
2) THE THERMAL CONTROL LAYER IN THIS DETAIL IS NOT CONTINUOUS.
3) THIS DETAIL UTILIZES A 12" CMU SUPPORT WALL, WHICH IS PREFERRED AS IT AVOIDS 16" UNITS, WHICH ARE MORE COSTLY AND MORE DIFFICULT TO LAY.

ISOMETRIC VIEW

UPPER WALL / LOW ROOF DETAIL (PREFERRED DETAIL)

SECTION VIEW

1 1/4" x 1/8" TERMINATION BAR W/ 1/4" DIA. X 1 1/4" DRIVE ANCHORS @ 16" O.C. (MIN.)
FULLY ADHERED MEMBRANE FLASHING
FULLY ADHERED SECONDARY MEMBRANE FLASHING
4" BRICK (CLAY) VENEER
DRAINAGE MATERIAL
WEEPS @ MAX. 32" O.C.
28 GA. STAINLESS STEEL FLASHING W/ RECEIVER TO ACCEPT COUNTER FLASHING, HORIZ. LAP 4" (MIN.) W/ NON-SKINNING BUTYL SEALANT (BY MASON CONTRACTOR)
1 1/4" x 1/8" CONTINUOUS TERMINATION BAR W/ REMOVABLE FASTENERS @ 16" O.C. (MIN.) (BY ROOFING CONTRACTOR)
COMPATIBLE METAL COUNTER FLASHING, HEMMED, WITH DRIP, LAP 4" (MIN.) W/ NON-SKINNING BUTYL SEALANT (BY ROOFING CONTRACTOR)
ROOF MEMBRANE (BY ROOFING CONTRACTOR)

SEE DETAIL 12C-A-14.3 FOR ENLARGED VIEW OF FLASHINGS AND MEMBRANES
NOTES:
1) "LOW SLOPE" ROOFS ARE DEFINED AS ROOFS WITH A SLOPE LESS THAN OR EQUAL TO 3:12 (14 DEGREES).
2) THE THERMAL CONTROL LAYER IN THIS DETAIL IS NOT CONTINUOUS.
3) THE 16" UNITS SHOWN IN THIS OPTIONAL DETAIL ARE MORE COSTLY AND MORE DIFFICULT TO LAY COMPARED TO DETAIL A-14.1