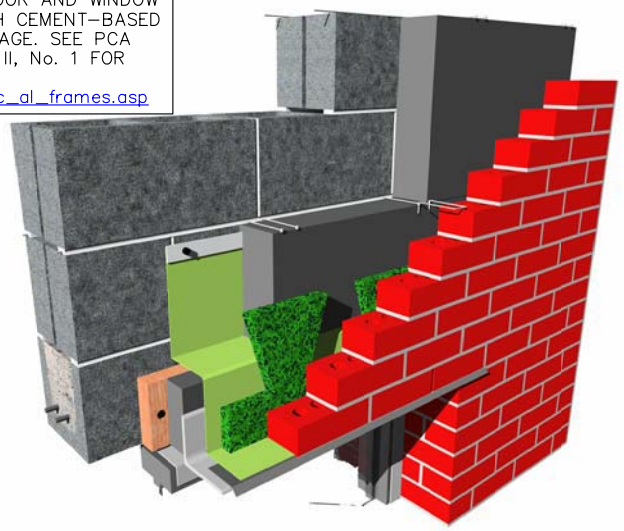
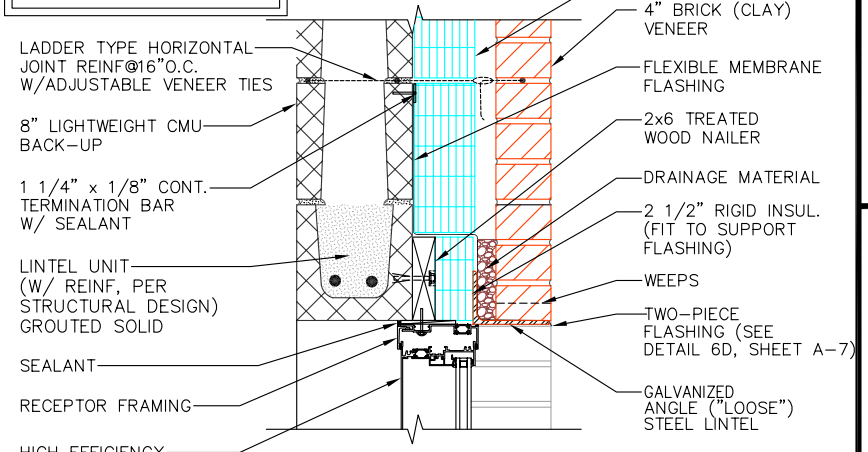
NOTE:

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

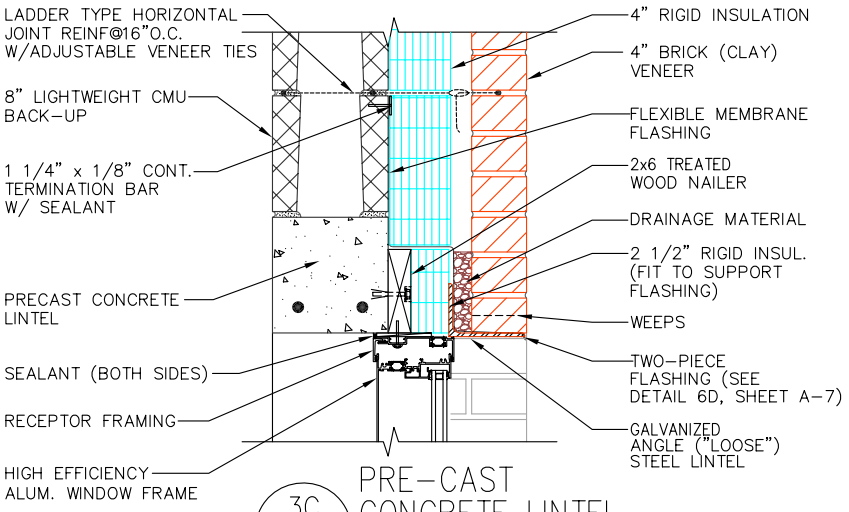


ISOMETRIC VIEW

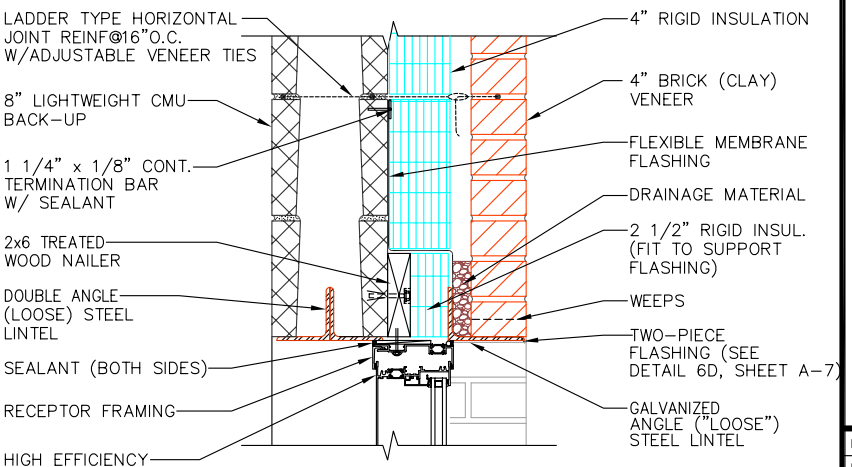
NOTE: MASONRY LINTEL MAY BE PRECAST OR FIELD ASSEMBLED




3A / A–1 MASONRY LINTEL (PREFERED)




3C / A–1 PRE–CAST CONCRETE LINTEL




3B / A–1 STEEL ANGLE LINTEL

# SHORT SPAN LINTELS–WINDOW OPENINGS – USING RECEPTORS

(3 OPTIONS FOR THE CMU BACK–UP)


DAILEY ENGINEERING, INC.
8486 STEPHENSON ROAD
ONSTED, MI 49265
PH. # (517) 467-9000
FAX # (517) 467-9010

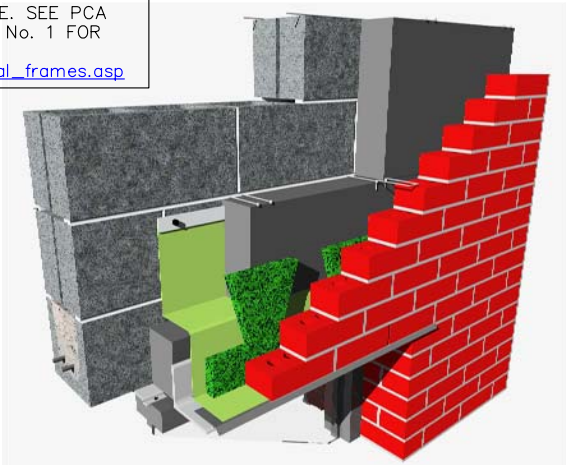

the 111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN – HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | SHORT SPAN LINTEL DETAILS–WINDOWS |
| SHEET: | A–4 |

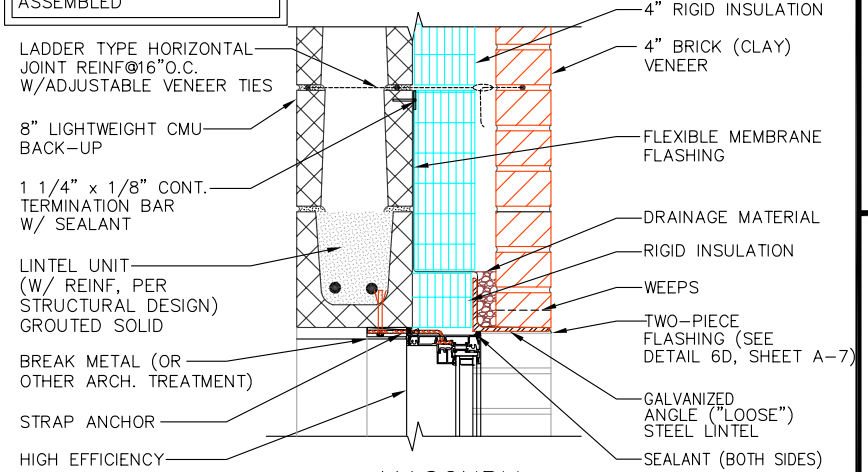
NOTE:

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

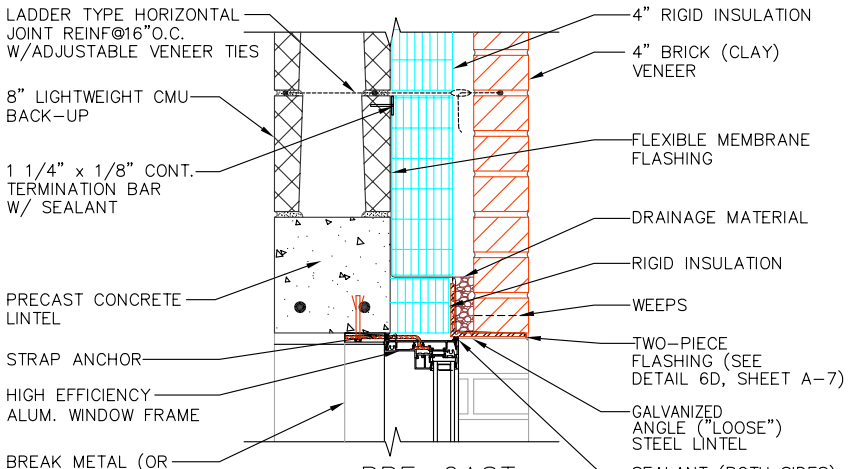


ISOMETRIC VIEW

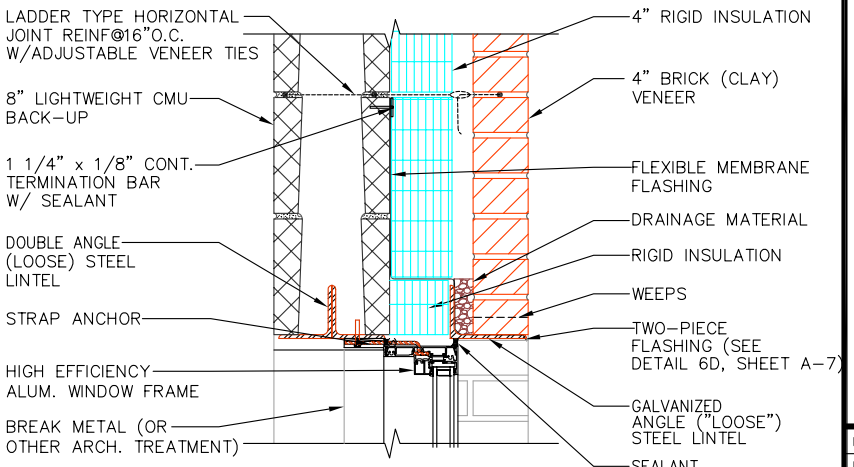
NOTE: MASONRY LINTEL MAY BE PRECAST OR FIELD ASSEMBLED




3A / A-1 MASONRY LINTEL (PREFERED)




3C / A-1 PRE-CAST CONCRETE LINTEL




3B / A-1 STEEL ANGLE LINTEL

# SHORT SPAN LINTELS-WINDOW OPENINGS - USING STRAP ANCHORS

(3 OPTIONS FOR THE CMU BACK-UP)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FAX # (517) 467-9010

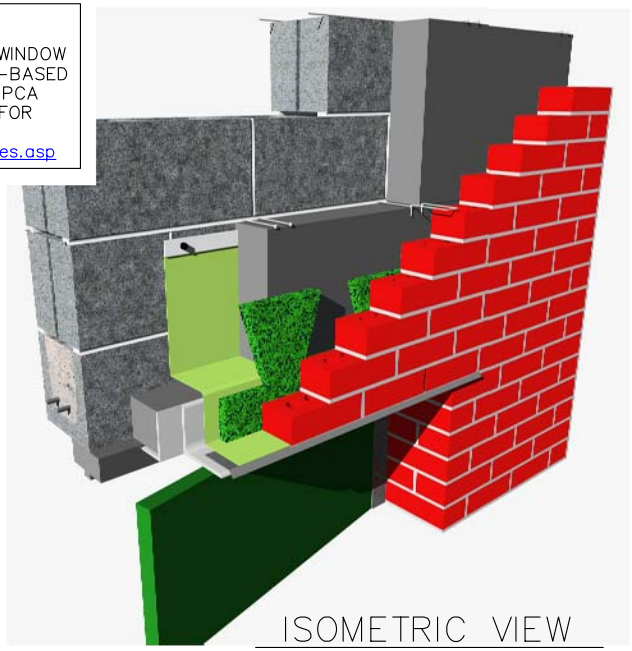

the 1111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | ALTERNATE SHORT SPAN LINTEL DETAILS-WINDOWS |
| SHEET: | A-4.1 |

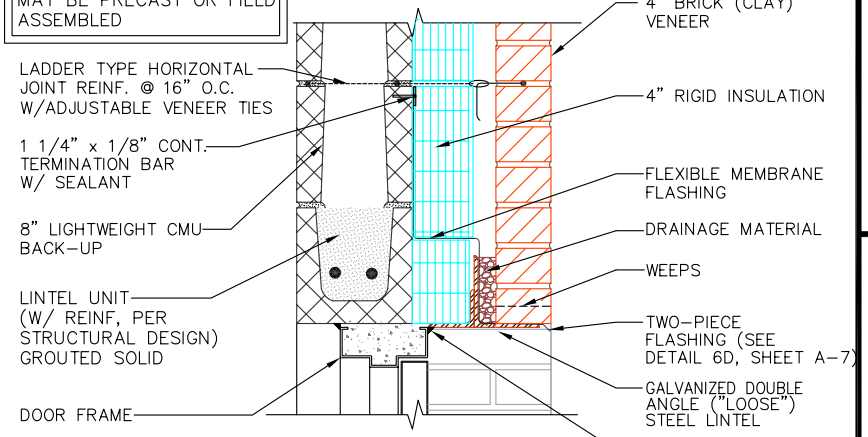
NOTE:

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

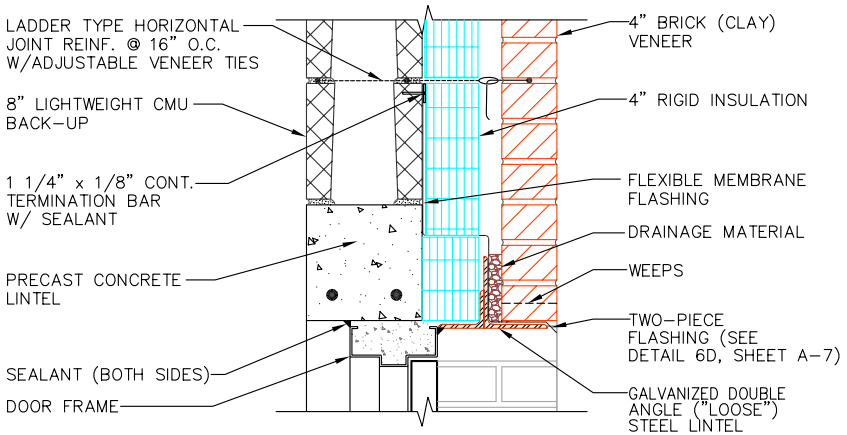


ISOMETRIC VIEW

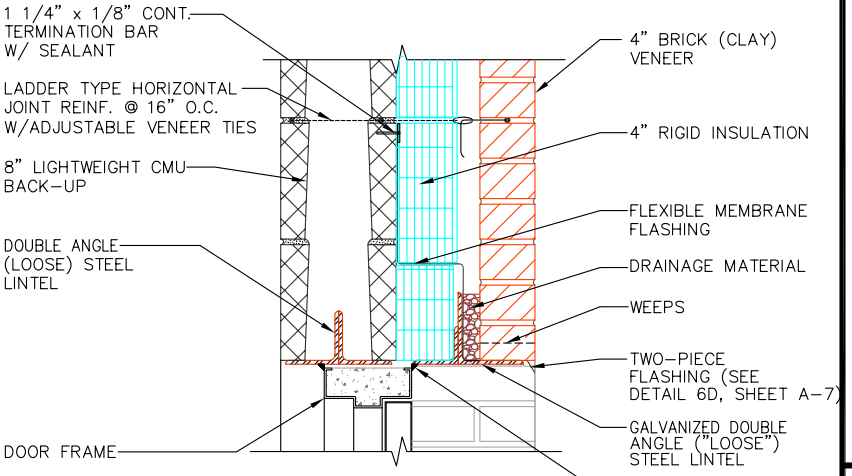
NOTE: MASONRY LINTEL MAY BE PRECAST OR FIELD ASSEMBLED




4A / A-1 MASONRY LINTEL (PREFERED)




4C / A-1 PRE-CAST CONCRETE LINTEL




4B / A-1 STEEL ANGLE LINTEL

# SHORT SPAN LINTELS-DOOR OPENINGS

(3 OPTIONS FOR THE CMU BACK-UP)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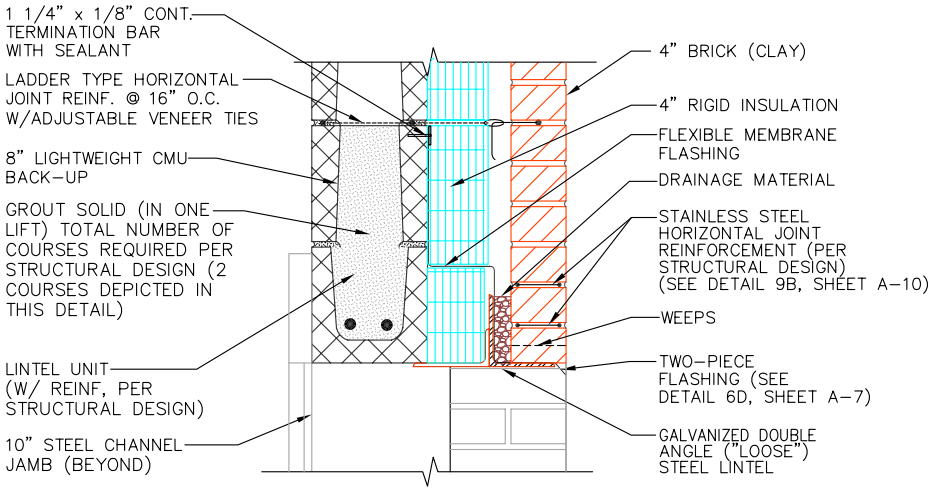
FAX # (517) 467-9010

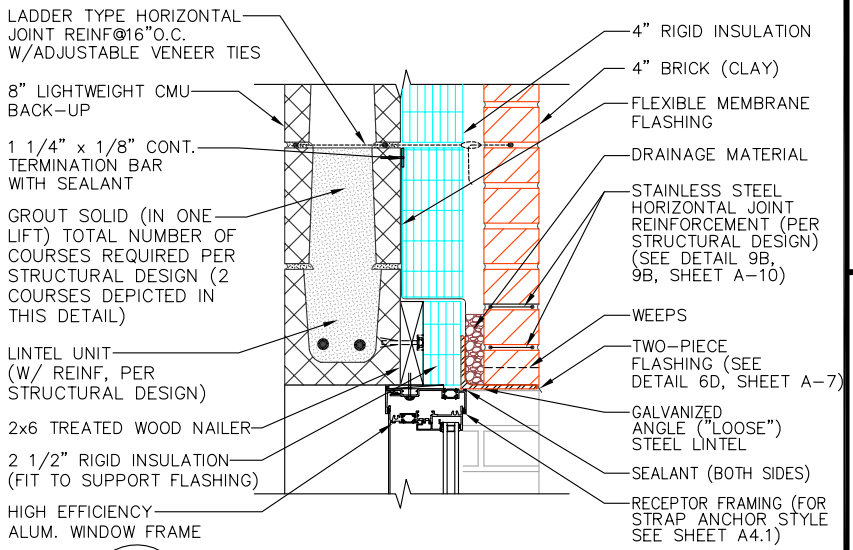

the 111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | SHORT SPAN LINTEL DETAILS-DOORS |
| SHEET: | A-5 |




5C / A-1 MASONRY LINTEL @ O.H. DOOR OPENING

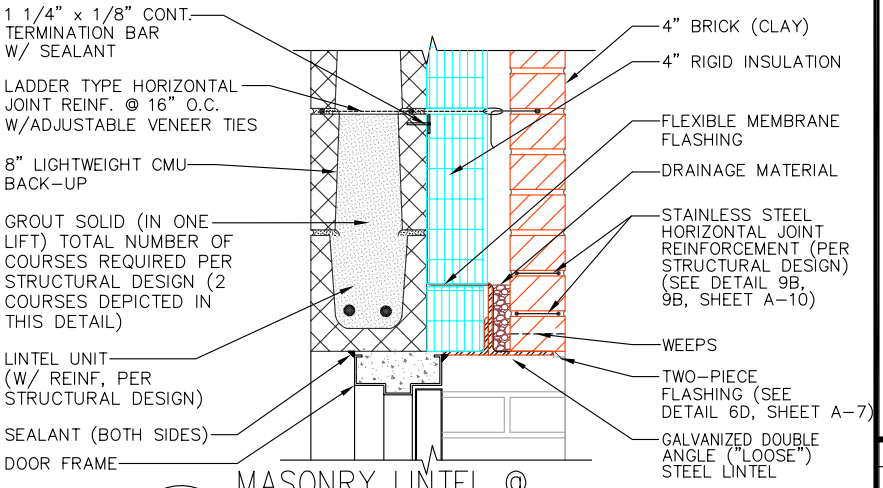



5A / A-1 MASONRY LINTEL @ WINDOW OPENING

NOTES:

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

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




5B / A-1 MASONRY LINTEL @ MULTIPLE MAN DOOR OPENINGS

# LONG SPAN LINTELS

(3 OPTIONS FOR WINDOWS, MAN DOORS & OVERHEAD DOORS)

DAILEY ENGINEERING, INC.
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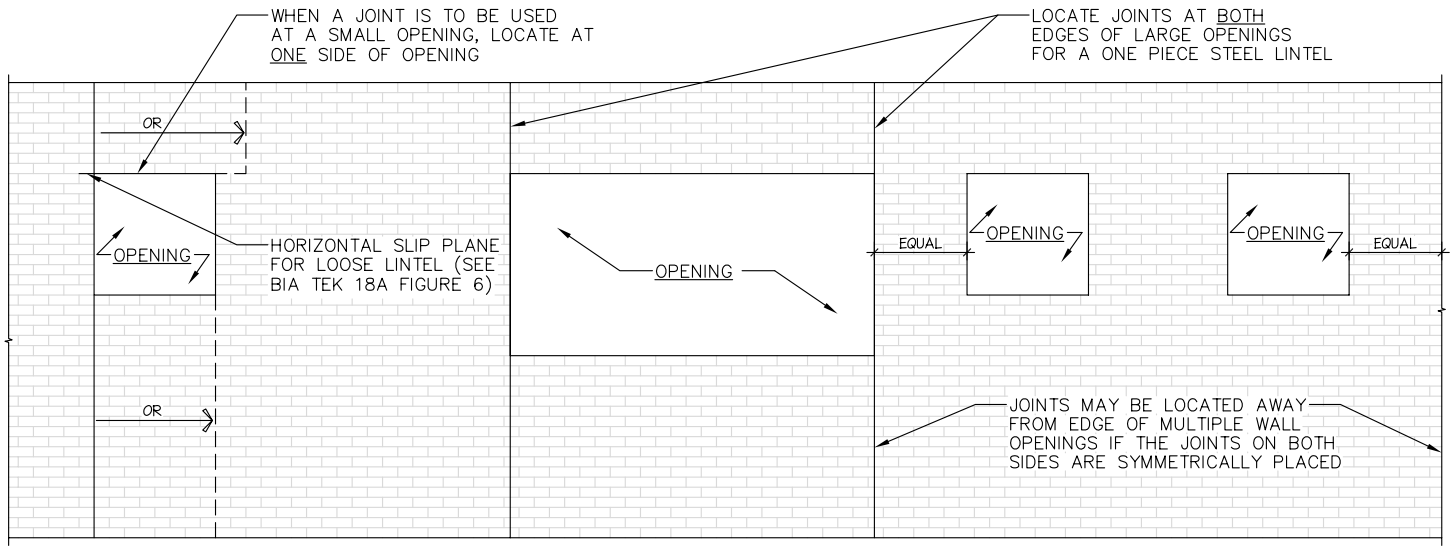
ONSTED, MI 49265
PH. # (517) 467-9000
FAX # (517) 467-9010

the 111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

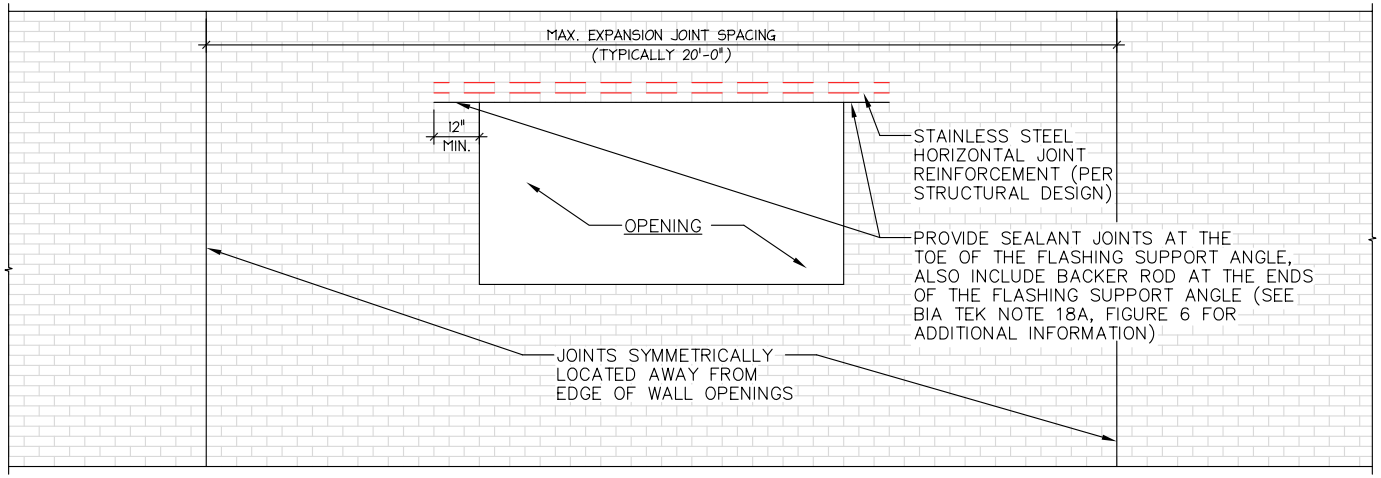
| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | LONG SPAN LINTEL DETAILS |
| SHEET: | A-6 |




NOTE:
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.

9A / A-10 BRICK EXPANSION JOINTS-PLACEMENT LOCATION

ELEVATION VIEW




NOTE:
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 AND TO ADD REINFORCEMENT ABOVE THE OPENINGS TO FUNCTION AS THE STRUCTURAL LINTEL. DETAIL 9B ILLUSTRATES THE APPLICATION OF THIS APPROACH.

9B / A-10 BRICK EXPANSION JOINTS-PLACEMENT LOCATIONS WITH "REINFORCED BRICK LINTEL OPENINGS" (PREFERRED)

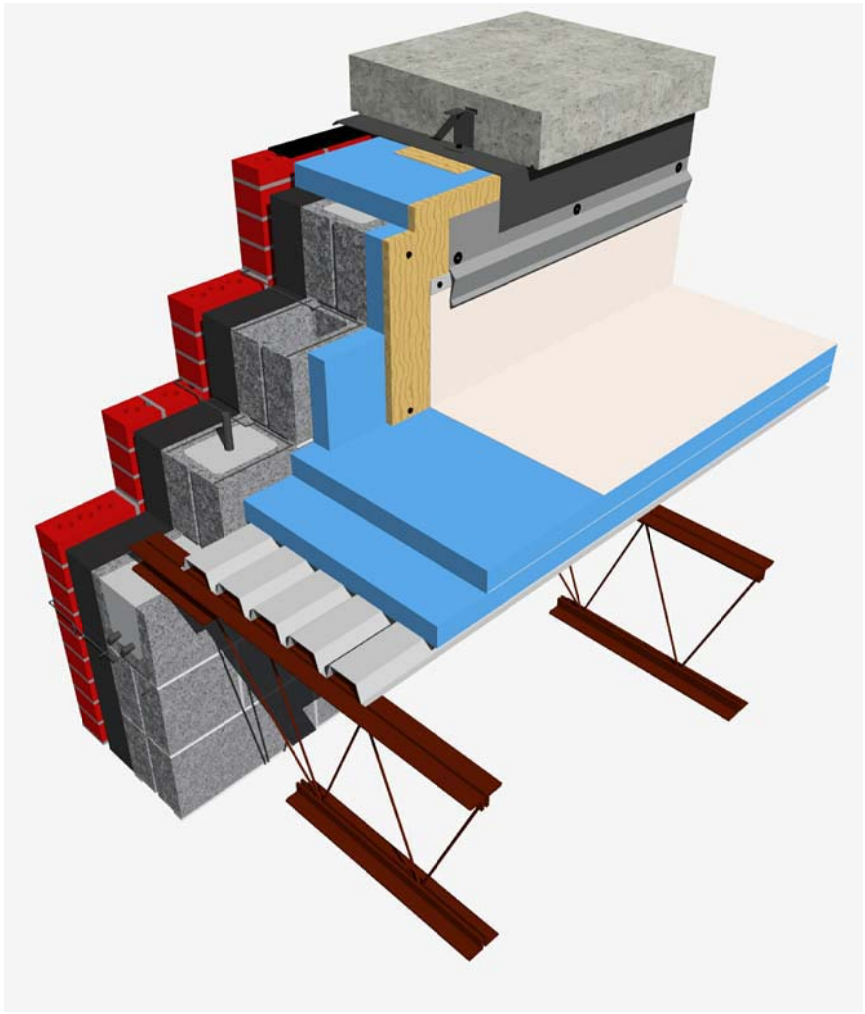
ELEVATION VIEW

DAILEY ENGINEERING, INC.
8486 STEPHENSON ROAD
ONSTED, MI 49265
PH. # (517) 467-9000
FAX # (517) 467-9010

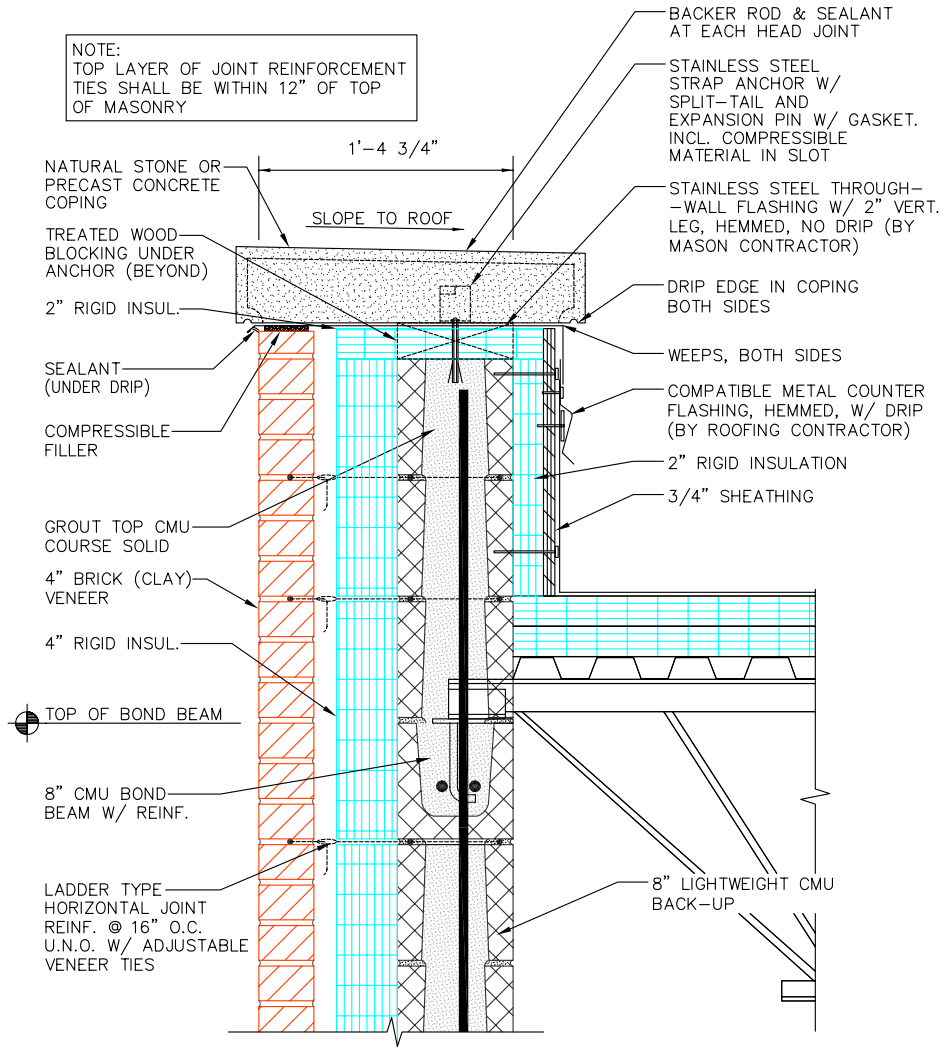
the 111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | BRICK EXPANSION JOINT LOCATION DETAILS |
| SHEET: | A-10 |



ISOMETRIC VIEW



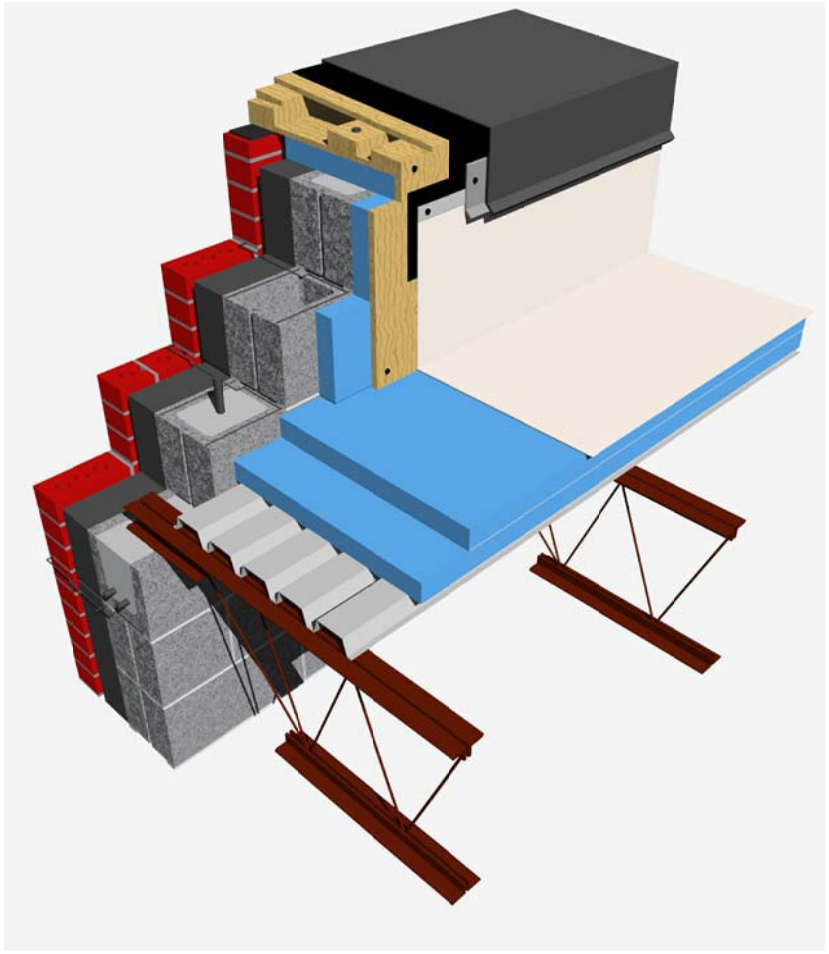

10A / A-2 NATURAL STONE OR PRECAST CONCRETE COPING PARAPET DETAIL

DAILEY ENGINEERING, INC.
8486 STEPHENSON ROAD
ONSTED, MI 49265
PH. # (517) 467-9000
FAX # (517) 467-9010

the 111 Masonry Institute of Michigan, Inc.

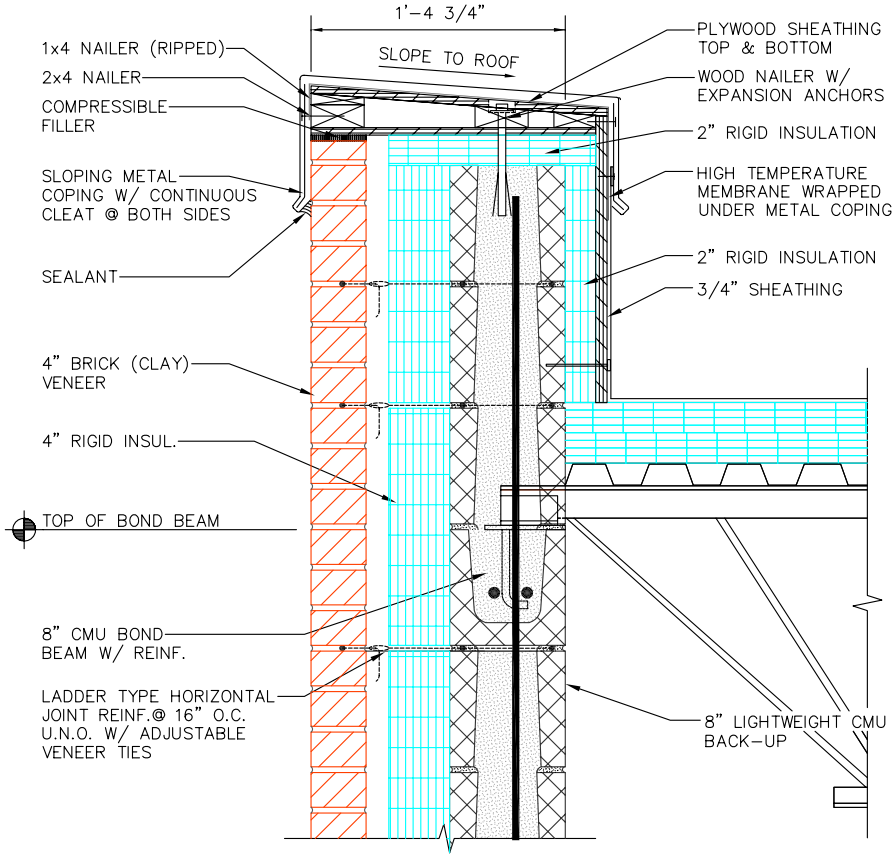
GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | PARAPET DETAIL W/ MASONRY COPING |
| SHEET: | A-11 |



ISOMETRIC VIEW

NOTE:
TOP LAYER OF JOINT REINFORCEMENT TIES SHALL BE WITHIN 12" OF TOP OF MASONRY




10B / A-2 METAL COPING PARAPET DETAIL


DAILEY ENGINEERING, INC.
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FAX # (517) 467-9010


the 111 Masonry Institute of Michigan, Inc.

GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | PARAPET DETAIL W/ METAL COPING |
| SHEET: | A-12 |

# 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.).

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GENERIC WALL DESIGN - HIGH R MULTI WYTHE (8" CMU W/ BRICK VENEER)

| | |
|---|---|
| IN CHARGE: | |
| DRAWN: | M.W.F. |
| APPROVED: | |
| DATE: | 05/03/2011 |
| TITLE: | WALL AIR CONTROL LAYER OPTIONS AND NOTES |
| SHEET: | A-13 |