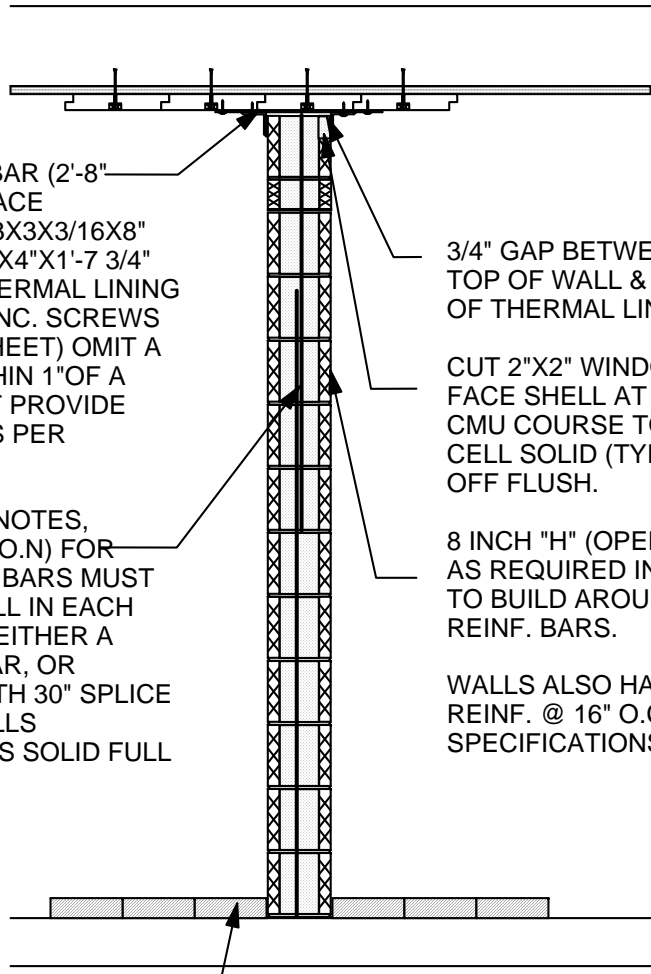


AT EACH VERT. REINF. BAR (2'-8" O.C. MAX), PROVIDE BRACE ASSEMBLY OF (2) S.S. L3X3X3/16X8" LONG & (1) S.S. PL. 3/16"X4"X1'-7 3/4" LONG ATTACHED TO THERMAL LINING TILES W/ (4) #14 S.S. CONC. SCREWS (SEE DETAIL ON THIS SHEET) OMIT A SCREW IF IT FALLS WITHIN 1" OF A TILE JOINT, BUT DO NOT PROVIDE FEWER THAN 3 SCREWS PER ASSEMBLY.

WALL REINF. PER GEN. NOTES, CENTERED IN CELLS (U.O.N) FOR FULL HEIGHT OF WALL. BARS MUST EXTEND TO TOP OF WALL IN EACH REINF. CELL. PROVIDE EITHER A SINGLE FULL HEIGHT BAR, OR PROVIDE TWO BARS WITH 30" SPLICE AS SHOWN. GROUT CELLS CONTAINING VERT. BARS SOLID FULL HEIGHT.

LOOSE LAID FIRE BRICK PLACED FLUSH AGAINST CMU (TYP) U.O.N.

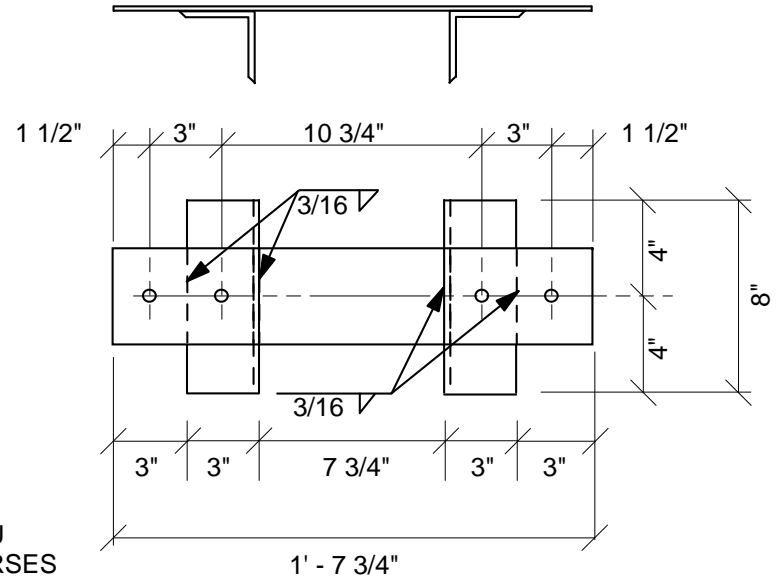


3/4" GAP BETWEEN TOP OF WALL & BOTTOM OF THERMAL LINING.

CUT 2"X2" WINDOW IN FACE SHELL AT TOP OF CMU COURSE TO GROUT CELL SOLID (TYP). STRIKE OFF FLUSH.

8 INCH "H" (OPEN END) CMU AS REQUIRED IN TOP COURSES TO BUILD AROUND VERT. REINF. BARS.

WALLS ALSO HAVE HORIZONTAL REINF. @ 16" O.C. PER SPECIFICATIONS.



**WALL BRACING ASSEMBLY**  
Scale: 1 1/2" = 1'-0"

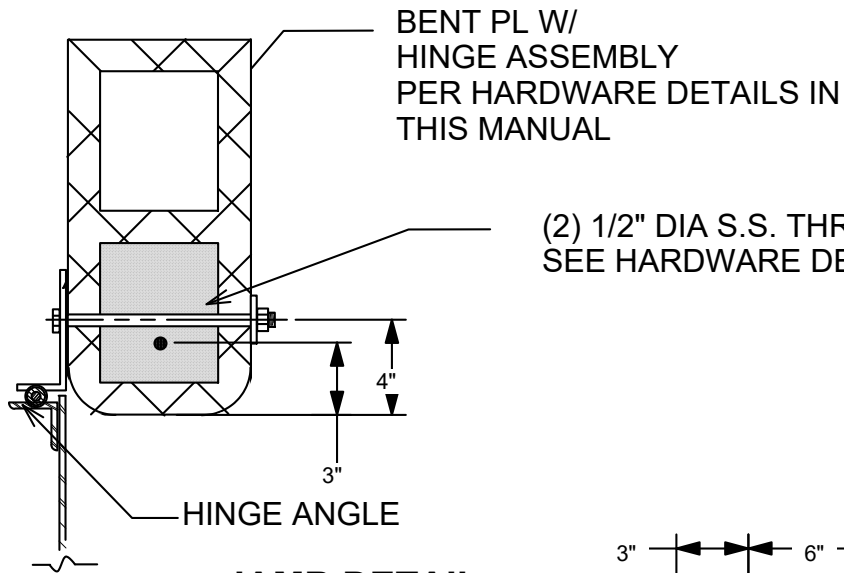
Scale: 1 1/2" = 1'-0"

**HIGH TEMPERATURE LININGS**

**INTERIOR WALL REINF / BRACING**

**2014**

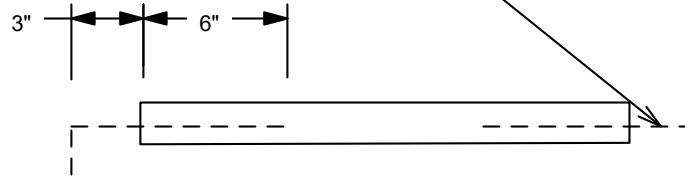
Prepared by High Temperature Linings  
P. O. Box 1240, White Stone, VA 22578  
800-411-6313 / www.firetrain.com



**JAMB DETAIL**

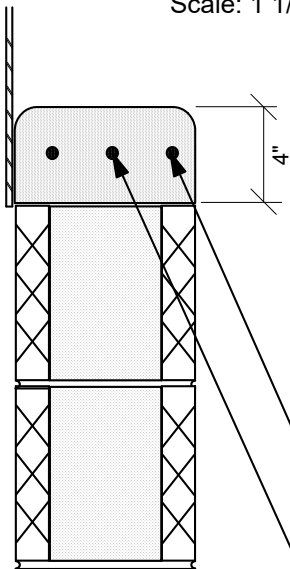
Scale: 1 1/2" = 1'-0"

(1) #4 X 18" LONG + 4" HOOK EA END.  
TIE HOOK INTO REINF JAMB AND GROUT  
SOLID INTEGRAL WITH JAMB GROUTING



**ELEVATION VIEW OF SILL**

Scale: 3/4" = 1'-0"



(2) # 4 X OPENING  
LESS 4"

(1) # 4 X 18" LONG + 4" HOOK  
AT EACH END

**SILL DETAIL**

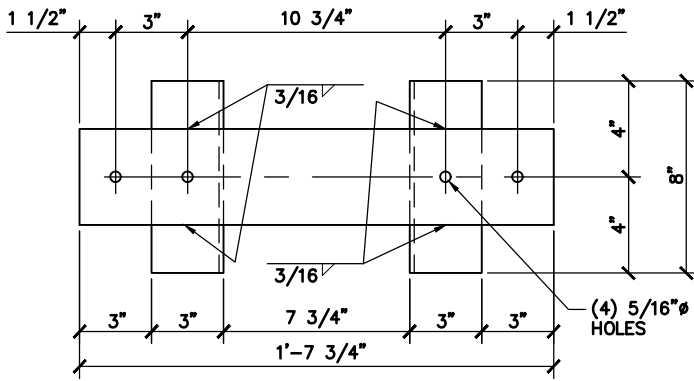
Scale: 1 1/2" = 1'-0"

SEE LINTEL DETAILS IN THIS MANUAL FOR  
HEAD CONDITION

**HIGH TEMPERATURE LININGS**

**TYPICAL JAMB AND WINDOW SILL**

**2013**

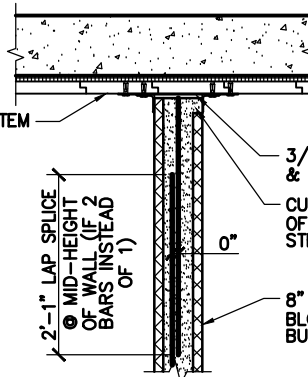


**NOTES:**

- ENTIRE ASSEMBLY SHALL BE ON SITE PRIOR TO CONSTRUCTION OF MASONRY WALLS. SET ASSEMBLY ON BLOCK ADJACENT TO BLOCK THAT WILL BE GROUTED. ONCE GROUTED BLOCK IS IN PLACE, SLIDE ASSEMBLY INTO PLACE, LIFT, AND ATTACH TO THERMAL LINING TILES ABOVE.

**PLAN DETAIL OF BRACE**

EXISTING THERMAL LINING SYSTEM CONT. ON CEILING ACROSS TOP OF PARTITION (TYP.)

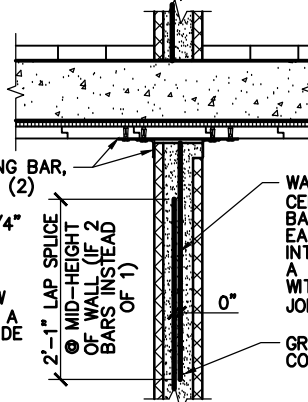


3/4" GAP BETWEEN TOP OF WALL & BOTTOM OF THERMAL LINING (TYP.)

CUT 2"x2" WINDOW IN FACE SHELL AT TOP OF CMU COURSE TO GROUT CELL SOLID (TYP.) STRIKE OFF HOLE WITH GROUT WHEN FINISHED.

8" CMU: CUT A 1" SLOT IN THE ENDS OF THE BLOCKS (AT THE TOP 3 COURSES ONLY) TO BUILD WALL AROUND VERT. REINFORCING BARS.

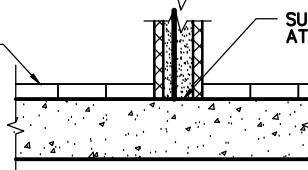
AT EACH VERTICAL REINFORCING BAR, PROVIDE BRACE ASSEMBLY OF (2) S.S. L3x3x3/16x8" LONG & (1) S.S. PL. 3/16"x4"x1'-7 3/4" LONG ATTACHED TO THERMAL LINING TILES W/ (4) #14 S.S. CONCRETE SCREWS (SEE PLAN DETAIL ABOVE.) OMIT A SCREW IF IT FALLS WITHIN 1 1/2" OF A TILE JOINT BUT DO NOT PROVIDE FEWER THAN 3 SCREWS PER BRACE ASSEMBLY.



WALL REINF. PER NOTE 3, CENTERED IN CELLS (U.O.N.) FOR FULL HEIGHT OF WALL. BARS MUST EXTEND TO VERY TOP OF WALL IN EACH REINFORCED CELL, BUT DO NOT DOWEL BARS INTO CONCRETE ABOVE OR BELOW. PROVIDE EITHER A SINGLE FULL HEIGHT BAR, OR PROVIDE TWO BARS WITH SPLICE AS SHOWN. PROVIDE HORIZONTAL JOINT REINFORCING (NOT SHOWN) PER NOTE 4.

GROUT CELLS SOLID FULL HEIGHT AT CELLS CONTAINING VERTICAL BARS PER NOTE 3.

LOOSE LAID FIRE BRICK PLACED FLUSH AGAINST FACES OF CMU (TYP.)



SUPPORT CMU ON CONCRETE SLAB AT ALL LOCATIONS.

**NOTES:**

- SEE DETAIL 1/SK-3 FOR TYPICAL LINTEL DETAILS.
- PROVIDE FULL 8" TALL COURSE AT TOPS OF ALL WALLS. IF WALL DOES NOT COURSE HORIZONTALLY, PROVIDE SHORT COURSE WITHIN WALL LENGTH AT ANY LOCATION OTHER THAN AT ENDS OF WALL OR AT DOOR OR WINDOW JAMBS.
- PROVIDE #4 VERTICAL WALL REINFORCING BAR AT EVERY JAMB, AT ENDS OF ALL WALLS, AT EACH CELL ON EITHER SIDE OF EXPANSION JOINTS, AND AT 24" O.C. MAX. IN BETWEEN THOSE OTHER LOCATIONS. GROUT ALL CELLS WITH REINFORCING SOLID FOR FULL HEIGHT OF WALL WITH 3,000 PSI GROUT PER ASTM C-476.
- PROVIDE HORIZONTAL JOINT REINFORCING AT 16" O.C. MAX. VERTICALLY IN WALLS. JOINT REINFORCING SHALL EXTEND FULLY TO ENDS OF EVERY WALL LENGTH.
- PROVIDE 2-CELL NORMAL WEIGHT CONCRETE BLOCK CONFORMING TO ASTM C-90. PROVIDE UNITS WITH MINIMUM AVERAGE NET-AREA COMPRESSIVE STRENGTH OF 1,900 PSI, WITH MORTAR THAT CONFORMS TO ASTM C-270, TYPE S AND WITH INTEGRAL WATER REPELLENT ADMIXTURE IN THE CMU (AT BATCH PLANT) AND ADDED TO THE MORTAR.
- PROVIDE BULLNOSED CMU AT ALL JAMBS, AT WALL CORNERS, AND AT ENDS OF WALLS THAT DO NOT INTERSECT OTHER WALLS.

**WALL SECTION**

**TYPICAL NON-BEARING MASONRY WALL REINFORCING AND BRACING DETAILS**

1  
SK-2 | SK-2 NOT TO SCALE

PROJECT: BUTLER COUNTY C.C. BURN BUILDING – 2020 STRUCTURAL EVALUATION

DRAWING TITLE: TYP. MASONRY WALL REINF. & BRACING DETAILS

EL&A NO.: 20018



Elliott, LeBoeuf & McElwain  
8001 Forbes Place, Suite 201  
Springfield, VA 22151

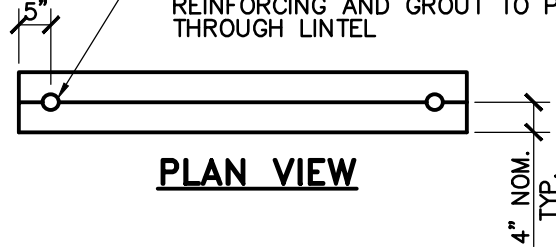
Phone (703) 321-2100  
Fax (703) 321-2112

DATE: 9/3/2020

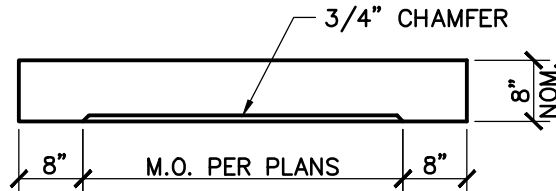
REF. DWG.:

DRAWING NO.: SK-2

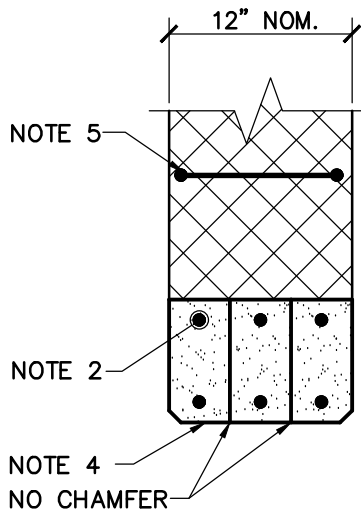
1" TO 1 1/8" RADIUS SEMI-CIRCLE  
(IN 4x8 LINTELS) TO ALLOW VERTICAL  
REINFORCING AND GROUT TO PASS  
THROUGH LINTEL



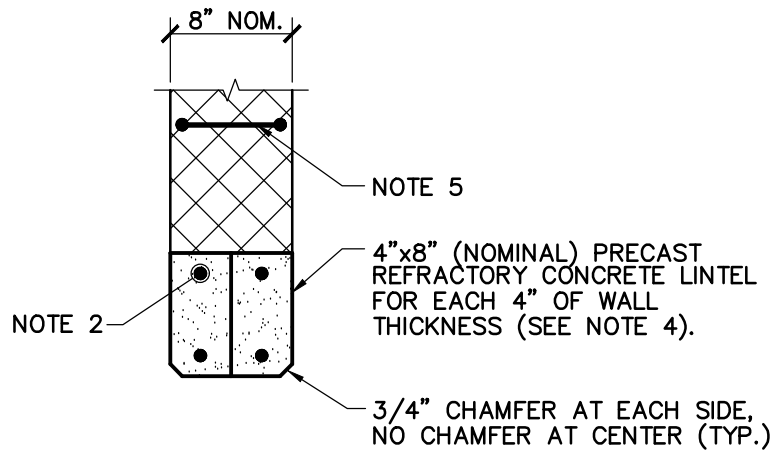
**PLAN VIEW**



**ELEVATION**



**SECTION AT 12" CMU**

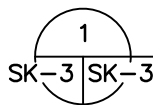


**SECTION AT 8" CMU**

**NOTES:**

1. THIS DETAIL APPLIES TO ALL CMU DOOR AND WINDOW OPENINGS.
2. (1) #4 TOP AND BOTTOM IN EACH 4"x8" LINTEL.
3. BEAR LINTELS ON WALL FOR 8" AT EACH END.
4. PROVIDE PRECAST REFRACTORY CONCRETE LINTELS, MANUFACTURED BY HIGH TEMPERATURE LININGS OF WHITE STONE, VA: (800) 411-6313.
5. PROVIDE HORIZONTAL JOINT REINFORCING IN FIRST BED JOINT.

**TYPICAL REFRACTORY  
CONCRETE LINTEL DETAILS**



NOT TO SCALE

PROJECT: BUTLER COUNTY C.C. BURN BUILDING – 2020 STRUCTURAL EVALUATION

DRAWING TITLE: TYPICAL REFRACTORY CONCRETE LINTEL DETAILS

EL&A NO.: 20018

DATE: 9/3/2020

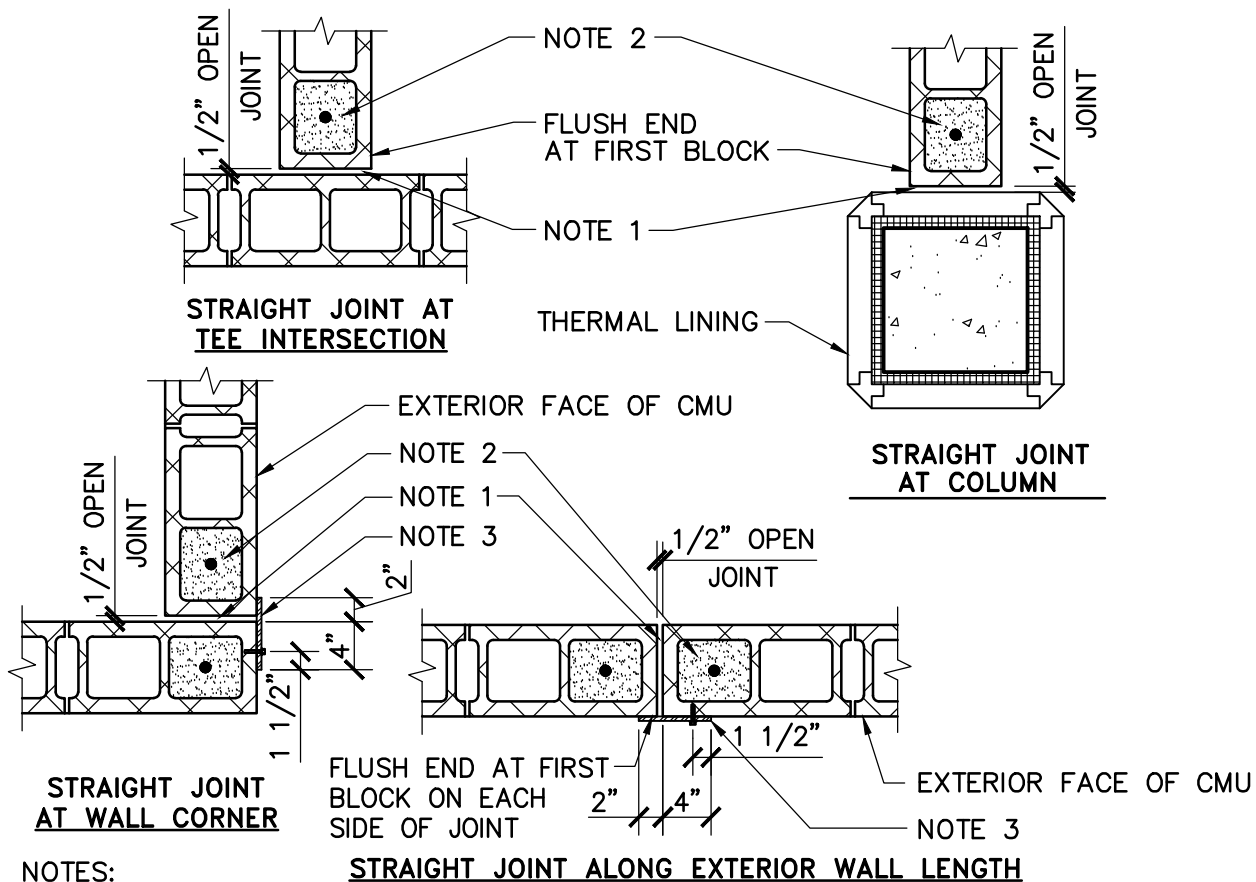
REF. DWG.:

DRAWING NO.: SK-3



Elliott, LeBoeuf & McElwain  
8001 Forbes Place, Suite 201  
Springfield, VA 22151

Phone (703) 321-2100  
Fax (703) 321-2112




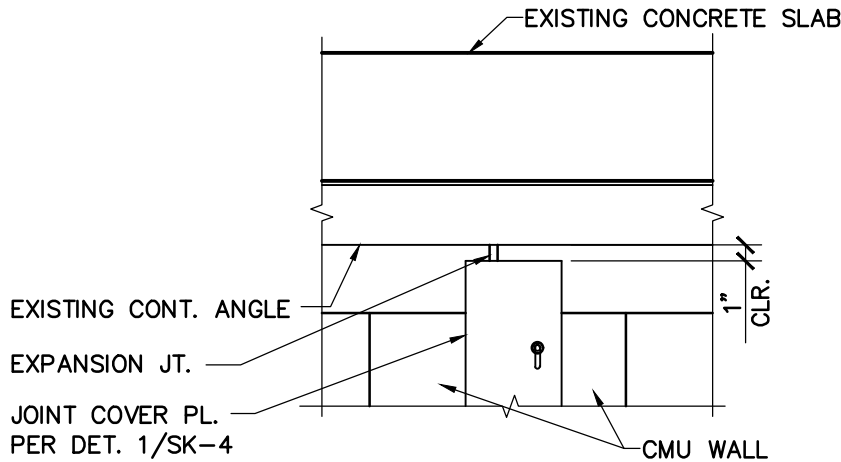
**NOTES:**

1. FORM JOINT WITH 1/2" PLYWOOD OR COMPRESSIBLE STYROFOAM. STRIP AFTER WALL IS COMPLETED.
2. REINFORCE & GROUT FIRST CELL SOLID FULL HEIGHT ON EACH SIDE OF JOINT.
3. AT EXTERIOR WALL JOINTS, PROVIDE S.S. 3/16"x6" PL. TO COVER JOINT FOR FULL HEIGHT OF WALL, FROM 1" BELOW TOP OF WALL TO 1" ABOVE BOTTOM OF WALL. PROVIDE 1/4"Ø x 2 3/4" LONG S.S. AGGRE-GATOR 300 SERIES CONCRETE SCREWS BY ELCO CONSTRUCTION, WITH HEX WASHER HEAD AND OVERSIZED S.S. WASHERS AT 2'-0" O.C. MAX. IN 5/16"x1 1/2" LONG VERTICAL SLOTTED HOLES (MIN. 5 PER PL.). FOR TOP TWO FASTENERS, PLACE FASTENER AT TOP OF SLOT. FOR BOTTOM TWO FASTENERS, PLACE FASTENER AT BOTTOM OF SLOT. FOR ALL OTHER FASTENERS, PLACE FASTENER IN MIDDLE OF SLOT. INSTALL FASTENERS UNTIL THEY ARE SNUG, BUT NOT OVER-TIGHTENED.

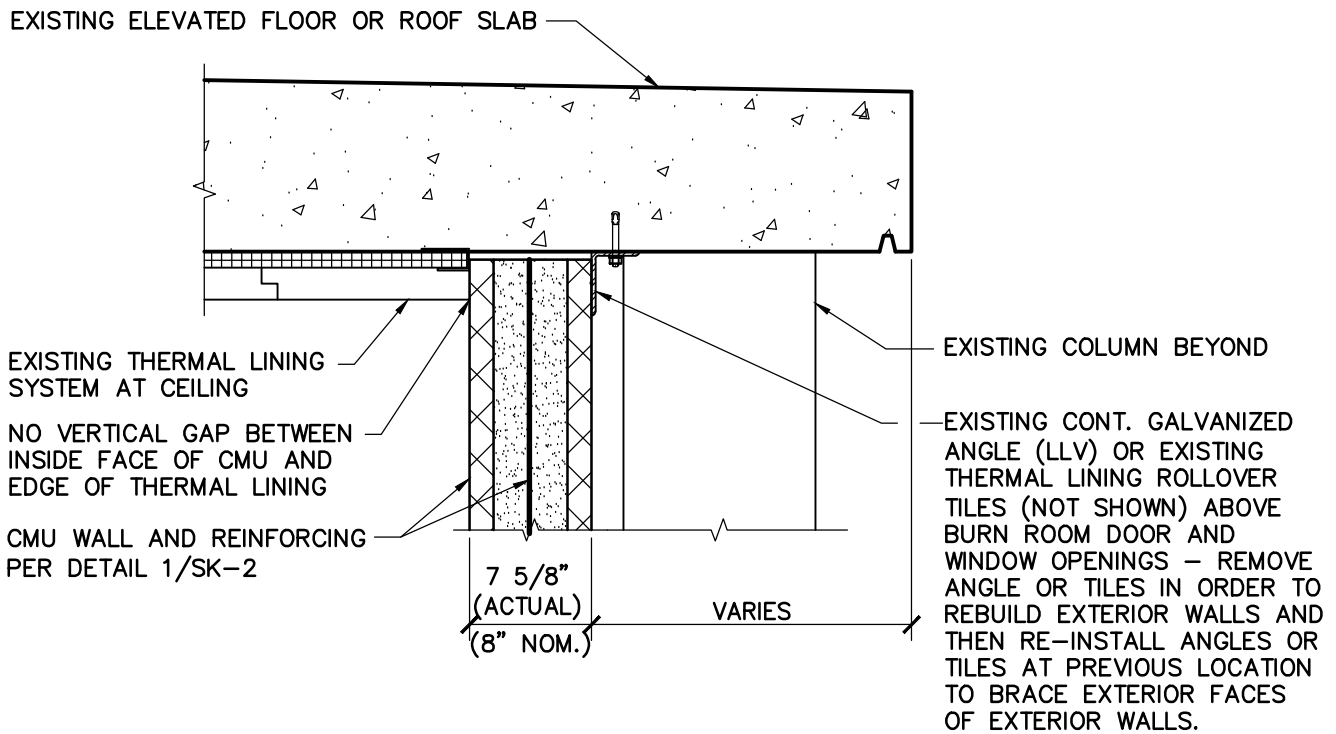
## PLAN DETAILS – OPEN JOINTS IN WALLS

  
 SK-4 | SK-4    NOT TO SCALE

PROJECT: BUTLER COUNTY C.C. BURN BUILDING – 2020 STRUCTURAL EVALUATION	
DRAWING TITLE: PLAN DETAILS – OPEN JOINTS IN WALLS	EL&A NO.: 20018
 Elliott, LeBoeuf & McElwain 8001 Forbes Place, Suite 201 Springfield, VA 22151	DATE: 9/3/2020
	REF. DWG.:
	DRAWING NO.: SK-4
Phone (703) 321-2100 Fax (703) 321-2112	



**ELEVATION – CONDITION WHERE BRACING ANGLE IS CONTINUOUS ACROSS EXPANSION JOINT**



**TYPICAL SECTION – TOP OF EXTERIOR NON-BEARING MASONRY WALLS**

1  
SK-5 | SK-5 NOT TO SCALE

PROJECT: BUTLER COUNTY C.C. BURN BUILDING – 2020 STRUCTURAL EVALUATION

DRAWING TITLE: TOP OF EXT. NON-BEARING MASONRY WALLS

EL&A NO.: 20018

DATE: 9/3/2020

REF. DWG.:

DRAWING NO.: SK-5



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