

**\*MINIMUM\* LINTEL SCHEDULE FOR MASONRY OPENINGS**

DESIGN LOADS ARE 500 PLF. CAPACITY REVIEWED FOR L/600 CRITERIA

WALL TYPE	LINTEL SPAN (clear opening width)									
	4'-0"	6'-4"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	20'-0"	24'-0"	
8" CMU	LIN-1	LIN-1	LIN-2	LIN-2	LIN-2	LIN-2	LIN-2	LIN-3	LIN-4	
12" CMU	LIN-5	LIN-5	LIN-6	LIN-6	LIN-6	LIN-6	LIN-6	LIN-7		
BRICK VENEER	LAL-1	LAL-2	LAL-3	WAL-1	WAL-1	WAL-1	WAL-1	WAL-1	WAL-1	

\*MINIMUM\* INDICATES STRUCTURAL LOAD MINIMUM - CONSULT ARCHITECT FOR COURSING REQUIREMENTS

**SCHEDULE OF LINTEL DESCRIPTIONS & BEARING REQUIREMENTS**

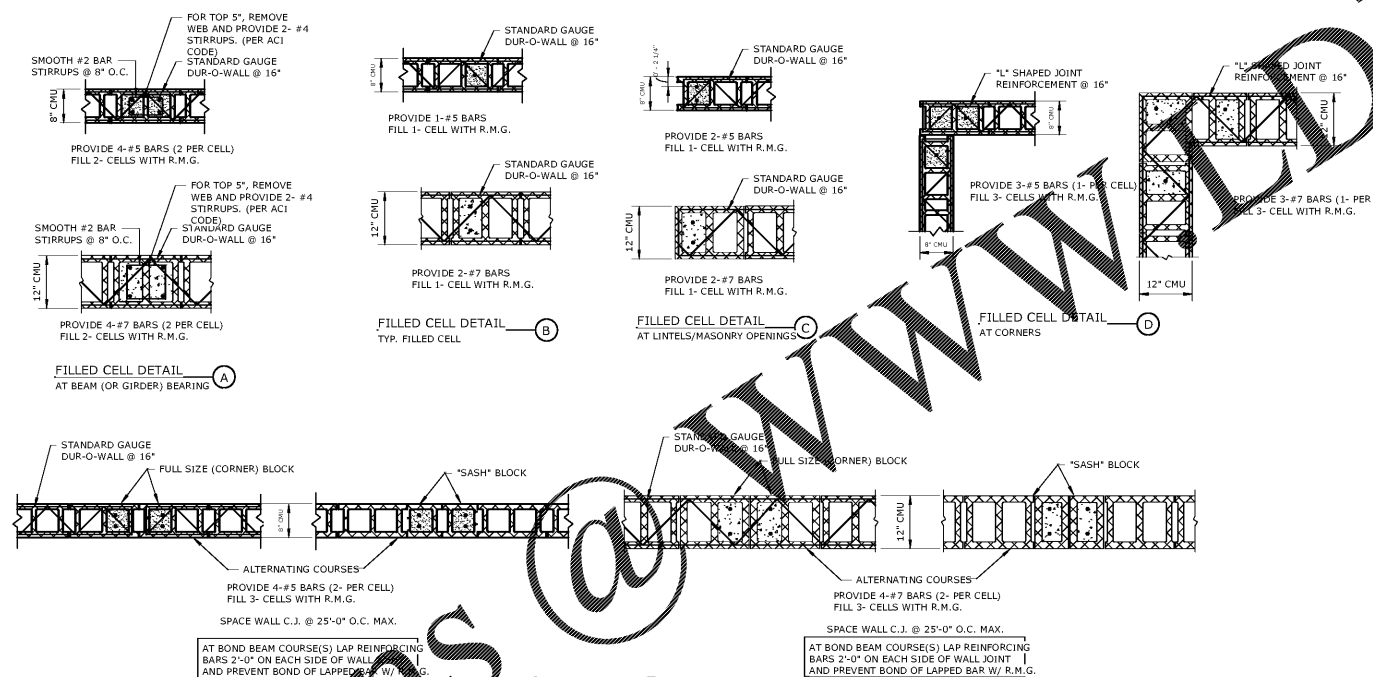
NOTE: LOOSE ANGLE LINTELS ARE LIMITED TO 8'-0" MAXIMUM SPAN BY I.B.C. AND B.I.A.

MARK	LINTEL TYPE	LINTEL CONSISTS OF:	REQUIRED END BEARING
LIN-1	CMU BOND BEAM	8" BOND BEAM COURSE w/ 2- #4 BARS CONTINUOUS	DETAIL A OR DETAIL B
LIN-2	STEEL TUBE	HOLLOW STRUCTURAL SECTION: HSS8x8x1/4"	DETAIL C OR DETAIL D
LIN-3	STEEL TUBE	HOLLOW STRUCTURAL SECTION: HSS12x8x1/4"	DETAIL C OR DETAIL D
LIN-4	STEEL TUBE	HOLLOW STRUCTURAL SECTION: HSS16x8x5/16"	DETAIL C OR DETAIL D
LIN-5	CMU BOND BEAM	12" BOND BEAM COURSE w/ 2- #5 BARS CONTINUOUS	DETAIL A OR DETAIL B
LIN-6	STEEL TUBE	HOLLOW STRUCTURAL SECTION: HSS8x12x1/4"	DETAIL C OR DETAIL D
LIN-7	STEEL TUBE	HOLLOW STRUCTURAL SECTION: HSS8x12x3/8"	DETAIL C OR DETAIL D
LAL-1	LOOSE ANGLE	STEEL ANGLE: L5 x 3 1/2 x 1/4" (L.L.V.)	6" ON BRICK VENEER
LAL-2	LOOSE ANGLE	STEEL ANGLE: L5 x 3 1/2 x 5/16" (L.L.V.)	6" ON BRICK VENEER
LAL-3	LOOSE ANGLE	STEEL ANGLE: L6 x 3 1/2 x 3/8" (L.L.V.)	6" ON BRICK VENEER
WAL-1	WELDED ANGLE	STEEL ANGLE: L8 x 4 x 7/16" (L.L.H.)	
WAL-2	WELDED ANGLE	STEEL ANGLE: L7 x 4 x 3/8" (L.L.H.)	
WAL-3	WELDED ANGLE	STEEL ANGLE: L6 x 4 x 5/16" (L.L.H.)	

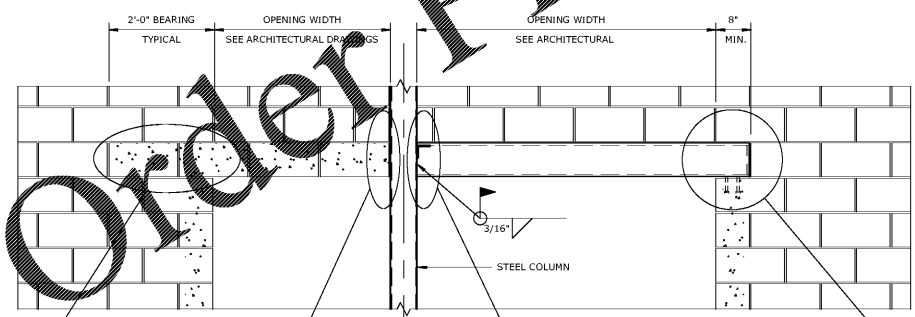
(L.L.V.) = LONG LEG VERTICAL

**GENERAL NOTES CONCERNING FILLED CELLS**

- FILLED CELLS (CMU) SHALL BE CONTINUOUS FROM FOOTING TO TOP BOND BEAM COURSE IN ANY GIVEN WALL SEGMENT. AT DETAIL "A" FILLED CELLS ARE CONTINUOUS FROM FOOTING TO BEAM (OR GIRDER) BEARING. AT TOP OF FILLED CELL "A" PROVIDE NON-SHRINK GROUT AND BEARING PLATE AS DETAILED WITH ANCHOR BOLTS OR CAST-IN-PLACE STUD ANCHORS. EXPANSION BOLTS OR SLEEVE ANCHORS ARE NOT ALLOWED AS A SUBSTITUTE FOR CAST-IN-PLACE ANCHOR BOLTS WHERE CAST-IN-PLACE ANCHOR BOLTS ARE SHOWN ON THE DRAWINGS.
- ALL VERTICAL REINFORCEMENT IN FILLED CELLS SHALL BE DOVELED INTO FOOTING AT BOTTOM AND BOND BEAM COURSE AT TOP. THESE DOVELS SHALL BE IN EQUAL QUANTITY AS VERTICAL BAR REINFORCEMENT AND SHALL HAVE A 1'-0" BEND INTO EITHER FOOTING OR BOND BEAM.
- CONTRACTOR SHALL PROVIDE STANDARD GAUGE "DUR-O-WALL" (JOINT REINFORCEMENT) AT 16" O.C. IN ALL CMU WALLS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- CONTRACTOR SHALL PROVIDE SMOOTH #2 BAR STIRRUPS (AROUND VERTICAL REINFORCING) AT 16" O.C. IN DETAIL "A". THESE STIRRUPS SHALL BE IN MORTAR JOINTS ALTERNATING WITH "DUR-O-WALL".
- REINFORCED MASONRY GROUT (R.M.G.) FOR FILLING CELLS IN CONCRETE MASONRY UNITS (VERTICAL FILLED CELLS AND BOND BEAMS) SHALL CONFORM TO "STANDARD SPECS FOR MORTAR AND GROUT FOR REINFORCED MASONRY", A.S.T.M. A-475-52, WITH A SLUMP OF BETWEEN 9" AND 11" AND PLACED NOT MORE THAN 2.5 HOURS AFTER WATER HAS BEEN FIRST ADDED, AND IN 4'-0" LIFTS (MAXIMUM) (1-PART CEMENT TO 2.5 PARTS FINE AGGREGATE BY VOLUME.) (3,000 P.S.I. AT 28 DAYS).
- SEE GENERAL NOTES SHEET FOR VERTICAL CELL BARS LAPS.
- BARS SHALL BE A.S.T.M. A-615, GRADE 60; EXCEPT TIES AND STIRRUPS, WHICH MAY BE GRADE 40.



**7 FILLED CELL DETAILS**  
SCALE: 3/4" = 1'-0"



**3 CMU / LINTEL BEARING DETAILS**  
SCALE: 3/4" = 1'-0"

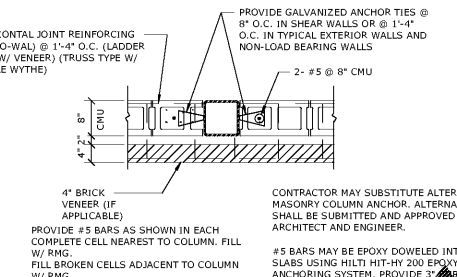
DETAIL A: PROVIDE LINTEL END BEARING AS SHOWN ABOVE. PROVIDE FILLED CELL PER DETAIL 3 (THIS SHEET). EXTEND REINFORCING 2'-0" MINIMUM PAST EDGE OF MASONRY OPENING. PROVIDE DOVEL(S) TO TIE BOND BEAM REINFORCING TO FILLED CELL REINFORCING.

DETAIL B: PROVIDE A706 WELDABLE REBAR WHEN 2'-0" END BEARING IS UNAVAILABLE. WELD A706 REBAR TO COLUMN FOR END SUPPORT (AS SHOWN ABOVE).

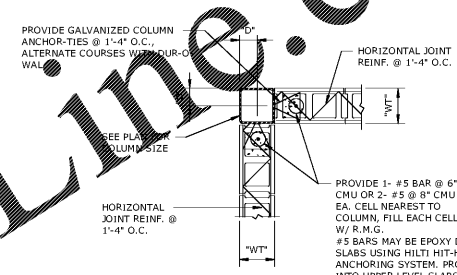
DETAIL C: FULLY WELD TUBE LINTEL TO COLUMN. CLIP ANGLE WELDED TO COLUMN FOR ERECTION PURPOSES ONLY IS ACCEPTABLE.

DETAIL D: SEE FILLED CELL "C" ON THIS SHEET FOR REQUIRED FILLED CELL AND REINFORCING. PROVIDE 2" DIA. HEADED STUD ANCHORS AT EACH END OF HSS LINTEL WHERE BEARING ATOP MASONRY OCCURS. AT CONTRACTOR'S OPTION, BEARING PLATES MAY BE PROVIDED.

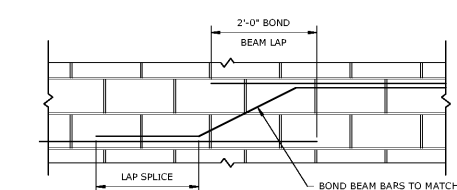
**3 CMU / LINTEL BEARING DETAILS**  
SCALE: 3/4" = 1'-0"



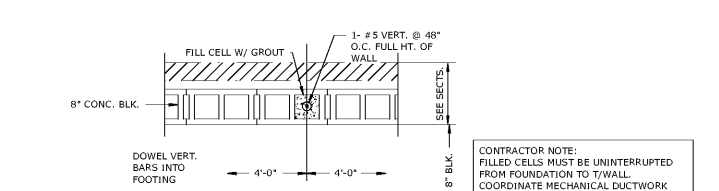
**4 TYPICAL COLUMN ANCHOR DETAIL**  
SCALE: 3/4" = 1'-0"



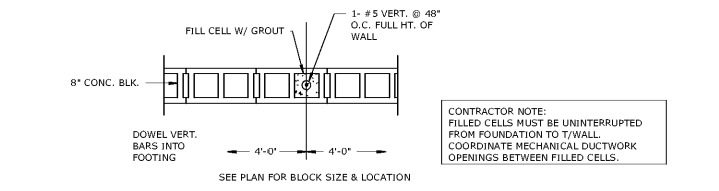
**5 TYPICAL COLUMN ANCHOR @ CORNER**  
SCALE: 3/4" = 1'-0"



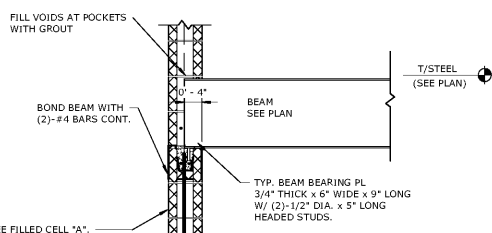
**6 TYPICAL BOND BEAM STEP DETAIL**  
SCALE: 3/4" = 1'-0"



**7 TYP. EXTERIOR WIND COLUMN (SHEAR WALL) FILLED CELL DETAIL**  
SCALE: 3/4" = 1'-0"



**8 TYP. INTERIOR WIND COLUMN (SHEAR WALL) FILLED CELL DETAIL**  
SCALE: 3/4" = 1'-0"



**9 BEAM BEARING ON MASONRY DETAIL**  
SCALE: 3/4" = 1'-0"

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NO.	DESCRIPTION	DATE