

Lap Splice Lengths for Masonry Walls

Single Reinforcing – Bars Centered

NOTES TO DESIGN PROFESSIONAL:

TABLES IN THIS DETAIL CONTAIN REINFORCEMENT LAP SPLICE LENGTHS THAT ACHIEVE NOT ONLY BUILDING CODE COMPLIANCE, BUT ALSO COMPLIANCE WITH THE "STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION" (WHICH IS IMPORTANT FOR LIFE SAFETY AT THE JOB SITE).

VARIOUS CODES AND CODE EDITIONS CONTAIN SIGNIFICANT VARIATIONS IN LAP SPLICE LENGTH REQUIREMENTS. ALTHOUGH LAP SPLICE LENGTH REQUIREMENTS SPECIFICALLY GIVEN IN THE 2015 IBC DIFFER FROM THOSE SPECIFICALLY GIVEN IN THE 2013 MSJC, 2015 IBC DOES PERMIT USE OF THE 2013 MSJC CRITERIA FOR LAP SPLICE LENGTHS. USE OF CONSTRUCTION BRACING CRITERIA, WHEN IT IS MORE RESTRICTIVE THAN THE MSJC REQUIREMENTS, PROVIDES FOR INCREASED SAFETY.

THEREFORE, THE VALUES INCLUDED IN THE TABLES ARE THE MORE RESTRICTIVE OF: 1) THE LAP LENGTHS DETERMINED USING THE 2013 MSJC CODE AND 2) 48 BAR DIAMETER (THE 24 HOUR SPLICE LENGTH CRITERIA FROM THE "STANDARD PRACTICE FOR BRACING"). MOST OF THE LISTED VALUES ARE CONTROLLED BY THE 48 BAR DIAMETER CRITERIA, WHICH IS NECESSARY FOR THE DEVELOPMENT OF BOTH INTERNAL AND EXTERNAL TEMPORARY BRACING IN THE VAST MAJORITY OF WALL CONDITIONS.

TABLE #1 – LAP SPLICE LENGTHS FOR MASONRY WALLS (INCHES)

BARS CENTERED IN WALL (SINGLE REINFORCING)						
BAR SIZE	6" CMU	8" CMU	10" CMU	12" CMU	14" CMU	16" CMU
#3	18	18	18	18	18	18
#4	24	24	24	24	24	24
#5	-	30	30	30	30	30
#6	-	38	36	36	36	36
#7	-	-	42	42	42	42
#8	-	-	-	50	48	48
#9	-	-	-	64	54	54

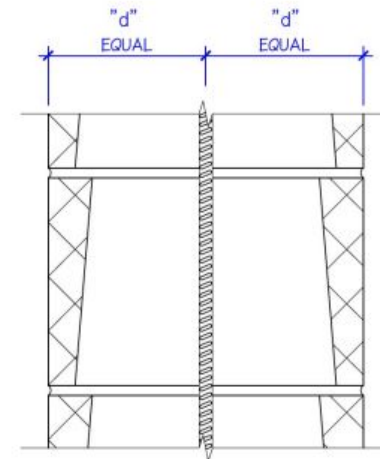
DESIGN CRITERIA:

$f_y = 60,000 \text{ PSI}$
 $f_m = 2,000 \text{ PSI}$

LEGEND:

VALUES IN BOLD BASED ON 2013 MSJC, ALL OTHER VALUES BASED ON STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION.

TABLE DOES NOT APPLY TO EPOXY COATED BARS.



WALL SECTION—SINGLE REINFORCING

"d" = 1/2 x SPECIFIED UNIT THICKNESS



Double Reinforcing – Bar Placement

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TABLE #2 – LAP SPLICE LENGTHS FOR MASONRY WALLS (INCHES)

BARS PLACED FOR MAXIMUM "d" (DOUBLE REINFORCING)					
BAR SIZE	8" CMU	10" CMU	12" CMU	14" CMU	16" CMU
#3	18	18	18	18	18
#4	24	24	24	24	24
#5	30	30	30	30	30
#6	57	57	57	57	57
#7	-	80	80	80	80
#8	-	-	-	-	-
#9	-	-	-	-	-

DESIGN CRITERIA:

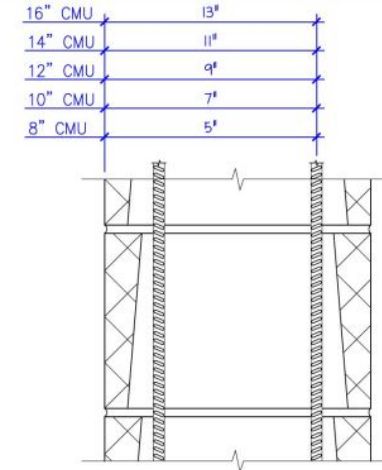
$f_y = 60,000 \text{ PSI}$
 $f'_m = 2,000 \text{ PSI}$

LEGEND:

VALUES IN BOLD BASED ON 2013 MSJC. ALL OTHER VALUES BASED ON STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION.

TABLE DOES NOT APPLY TO EPOXY COATED BARS.

CMU WIDTH "d"



WALL SECTION—DOUBLE REINFORCING
 "d" = NOMINAL UNIT THICKNESS MINUS 3.00 INCHES

