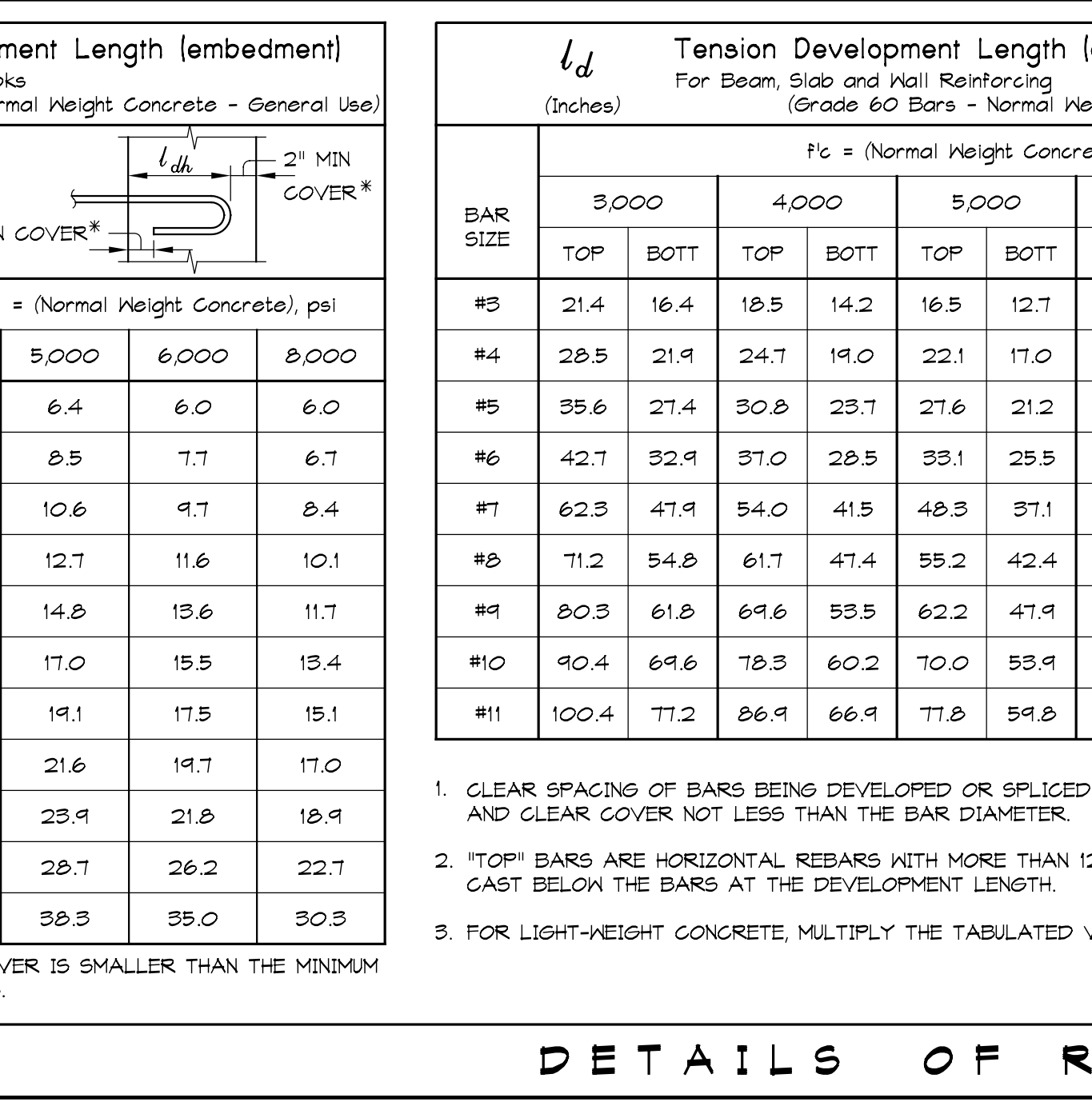
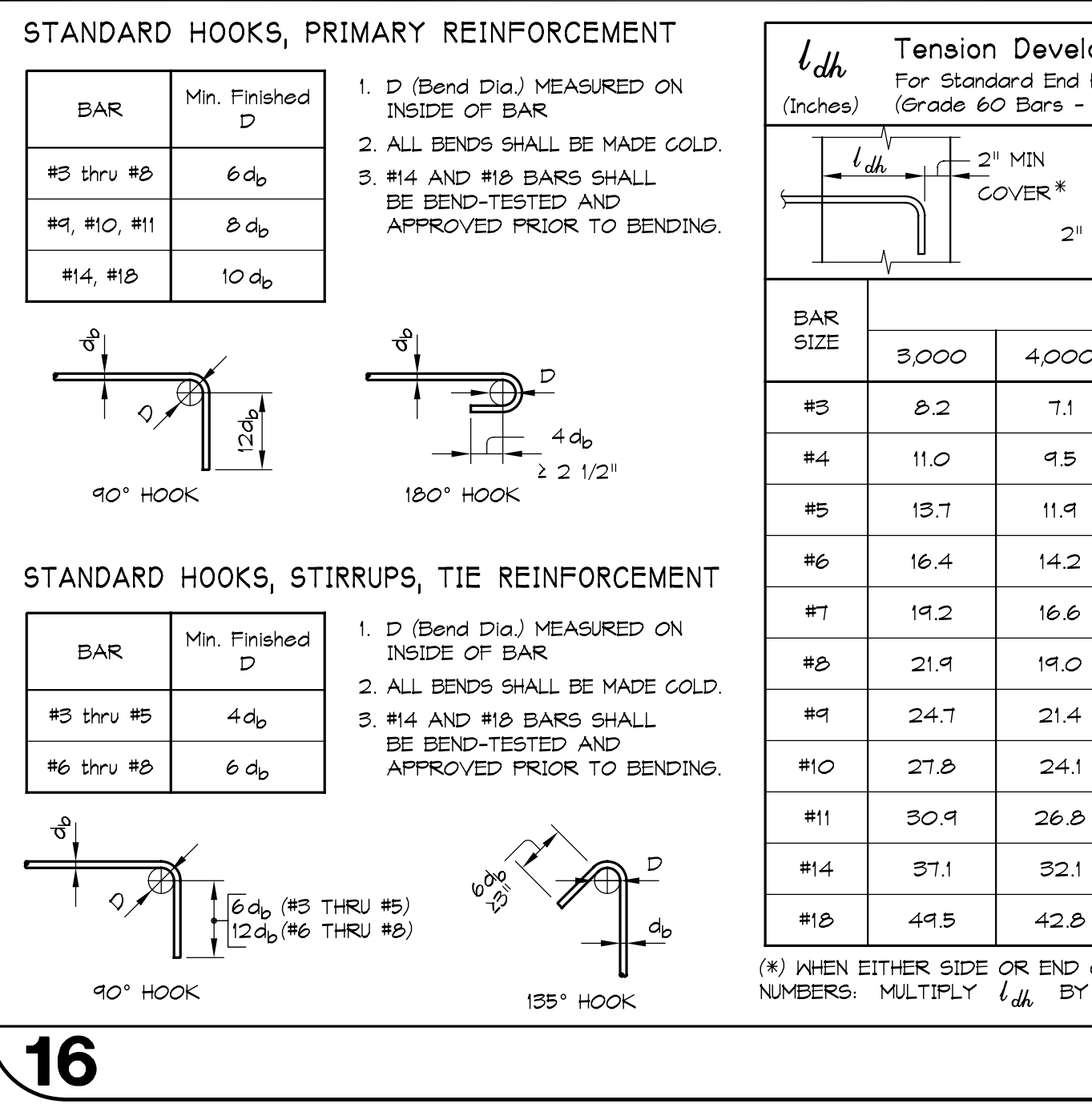
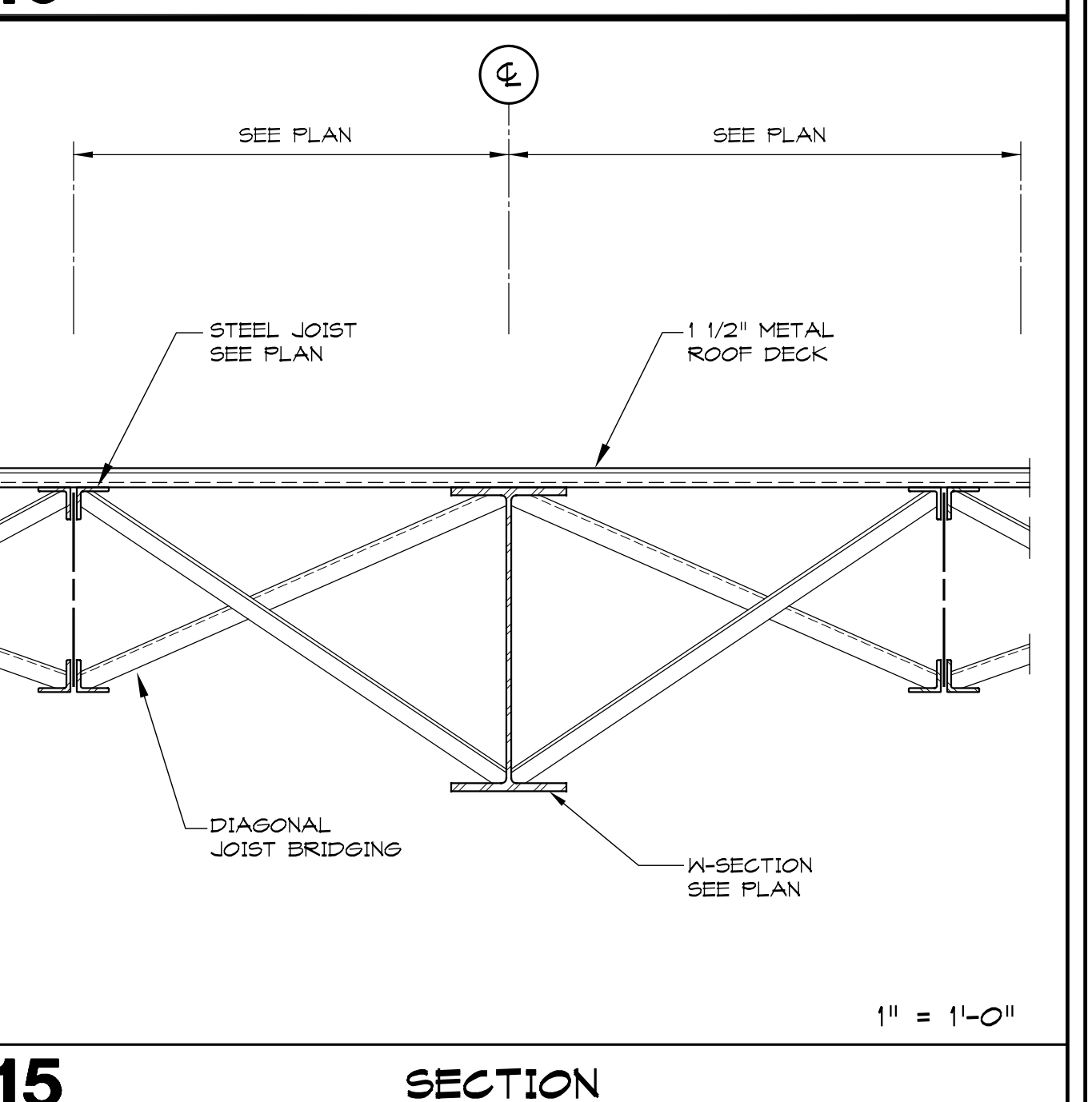
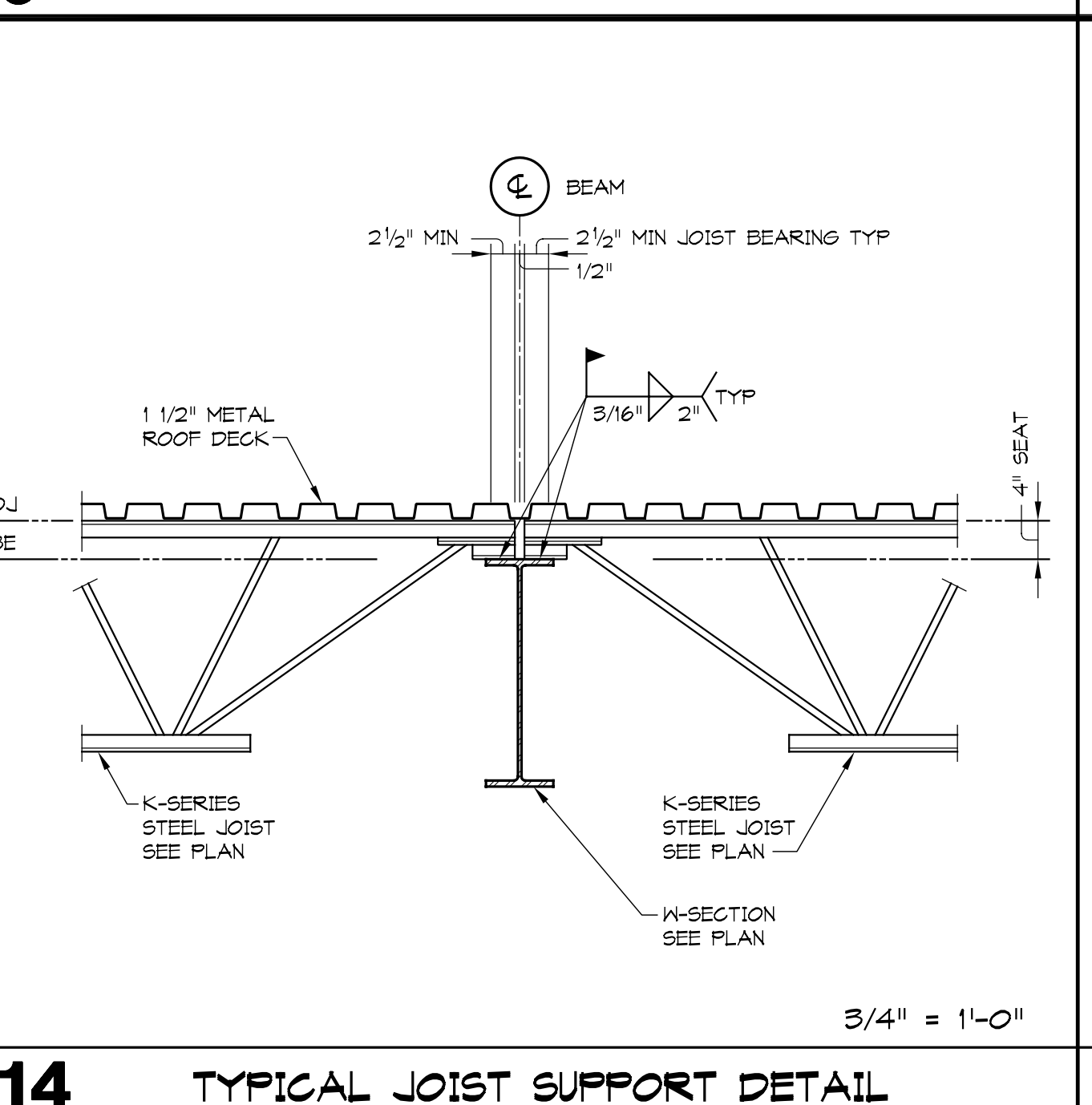
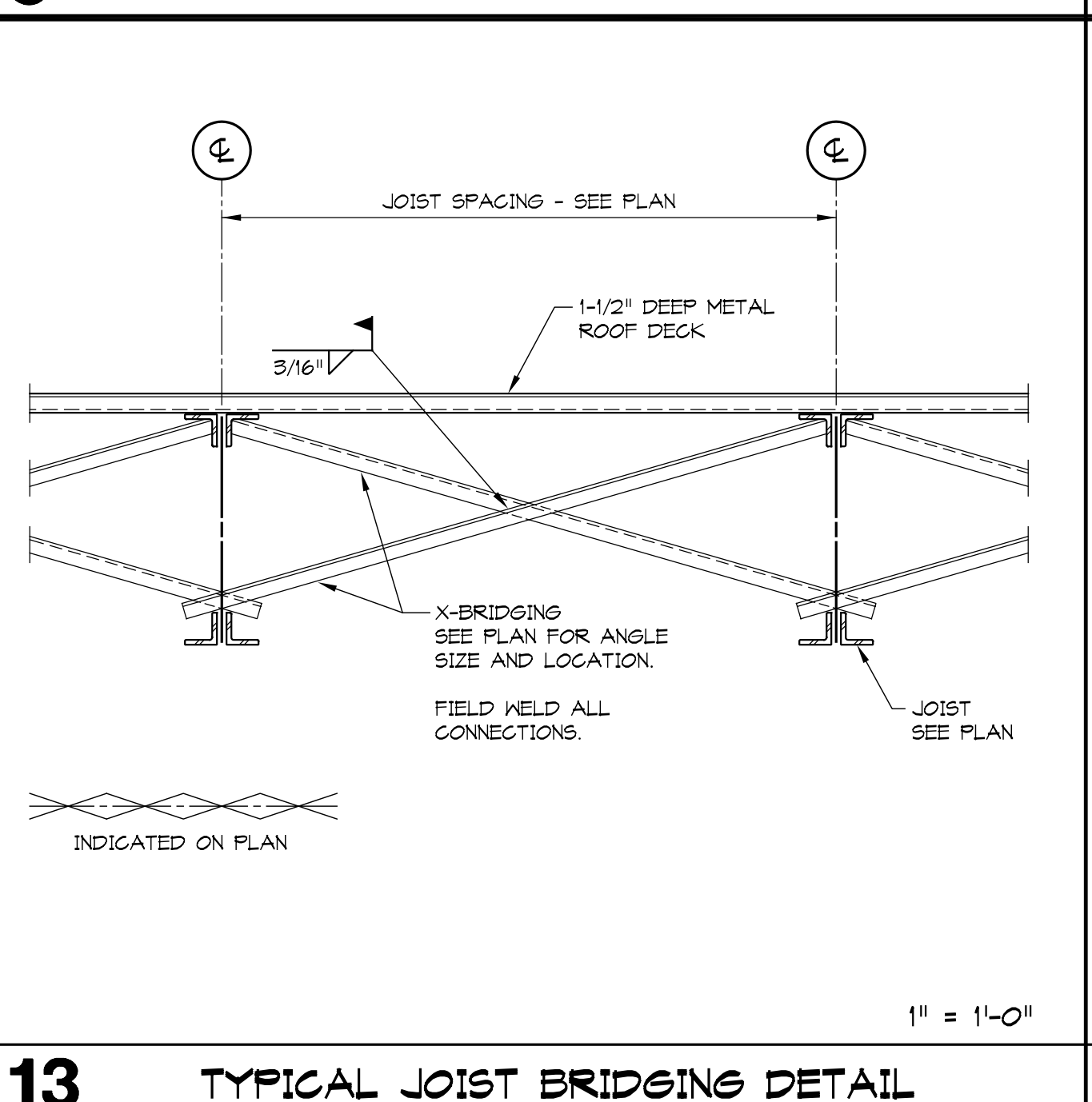
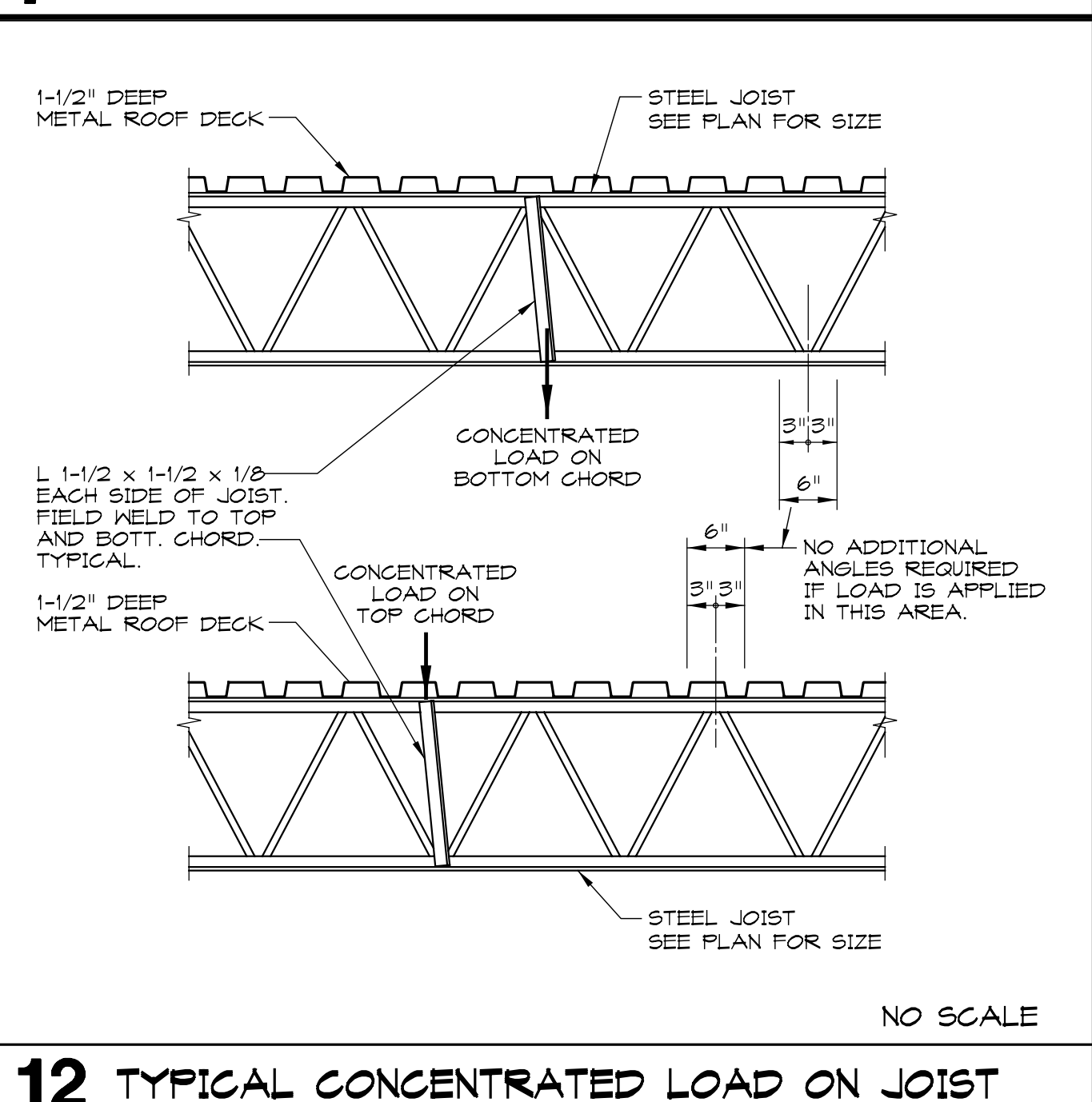
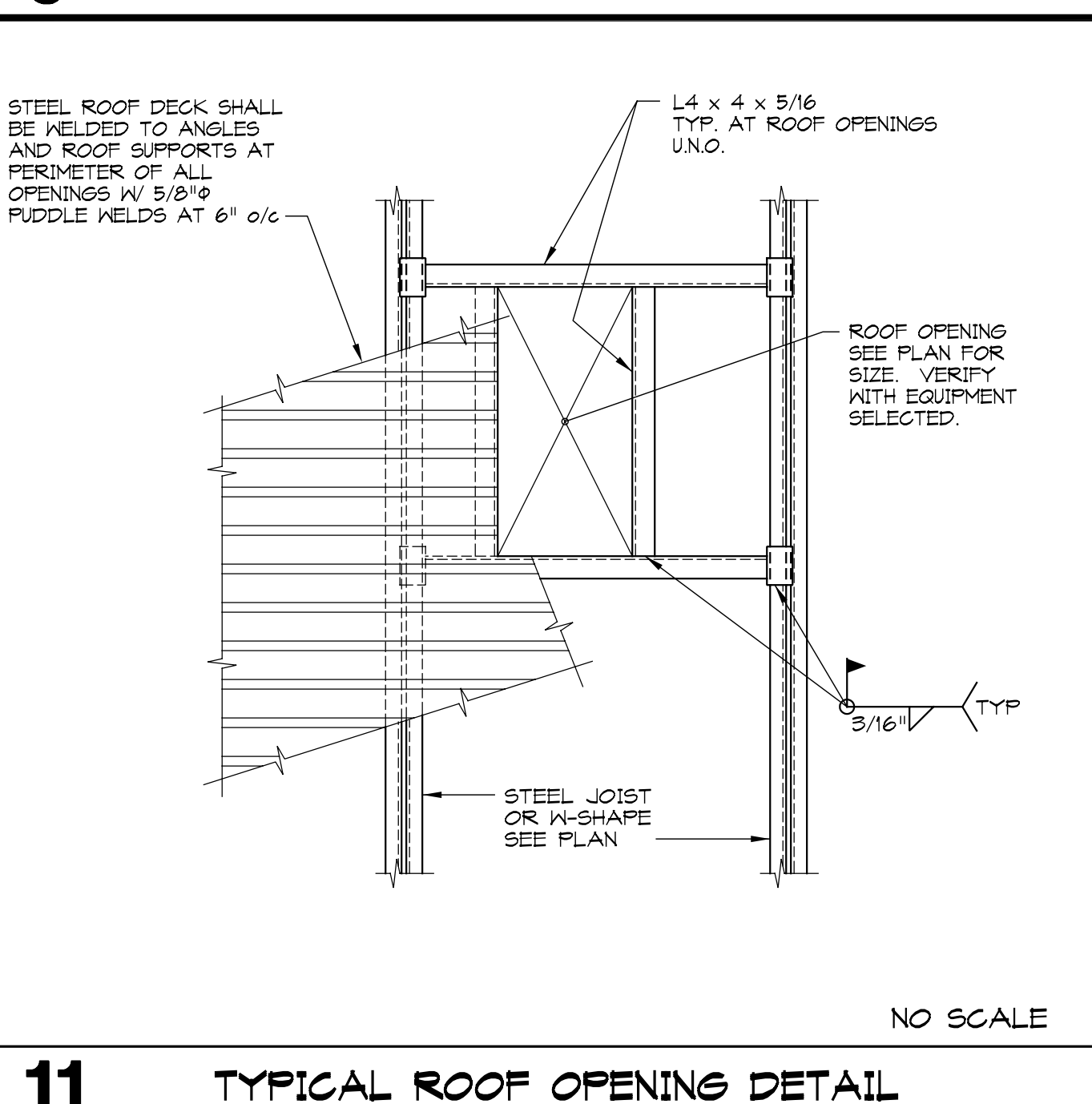
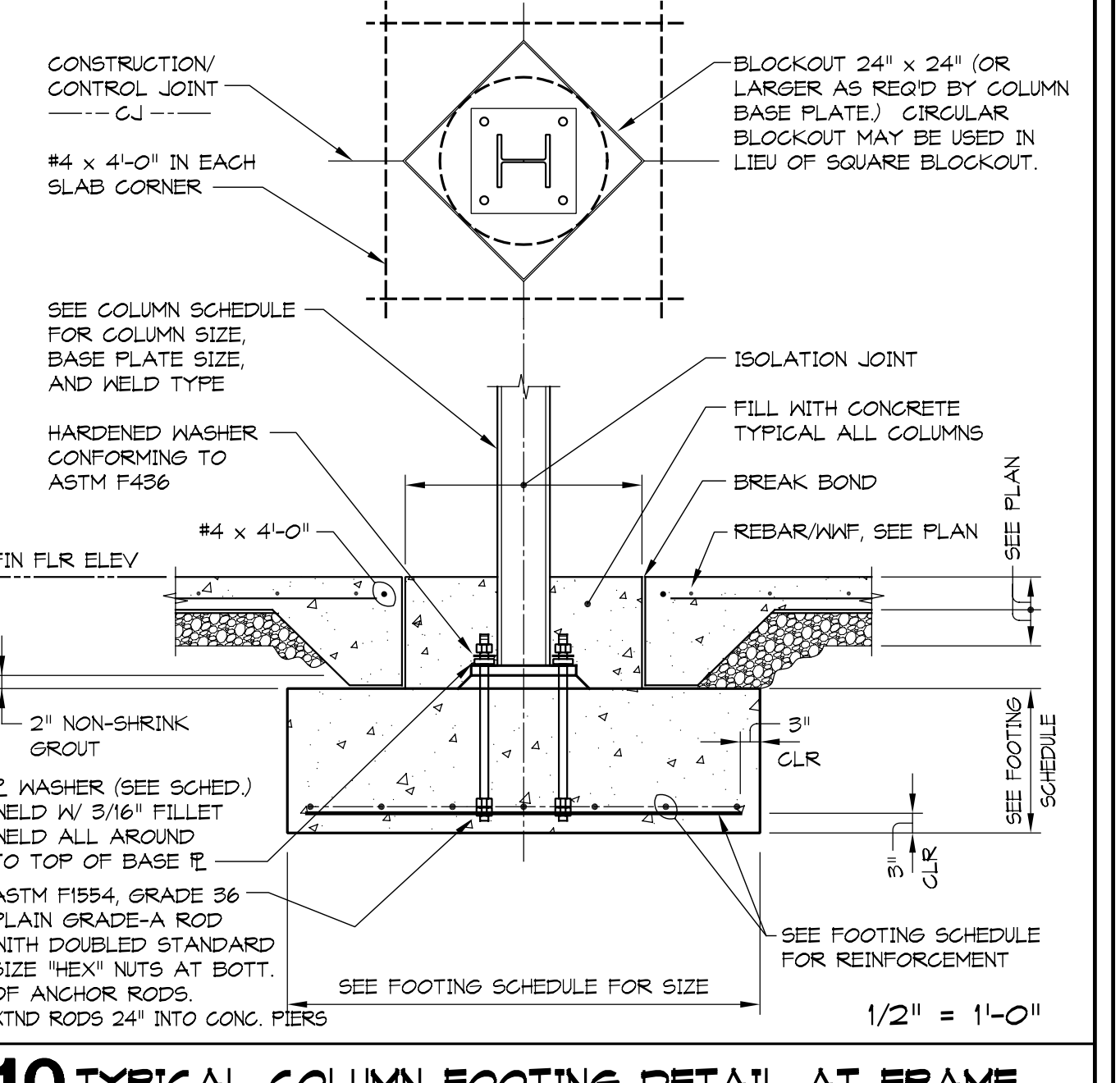
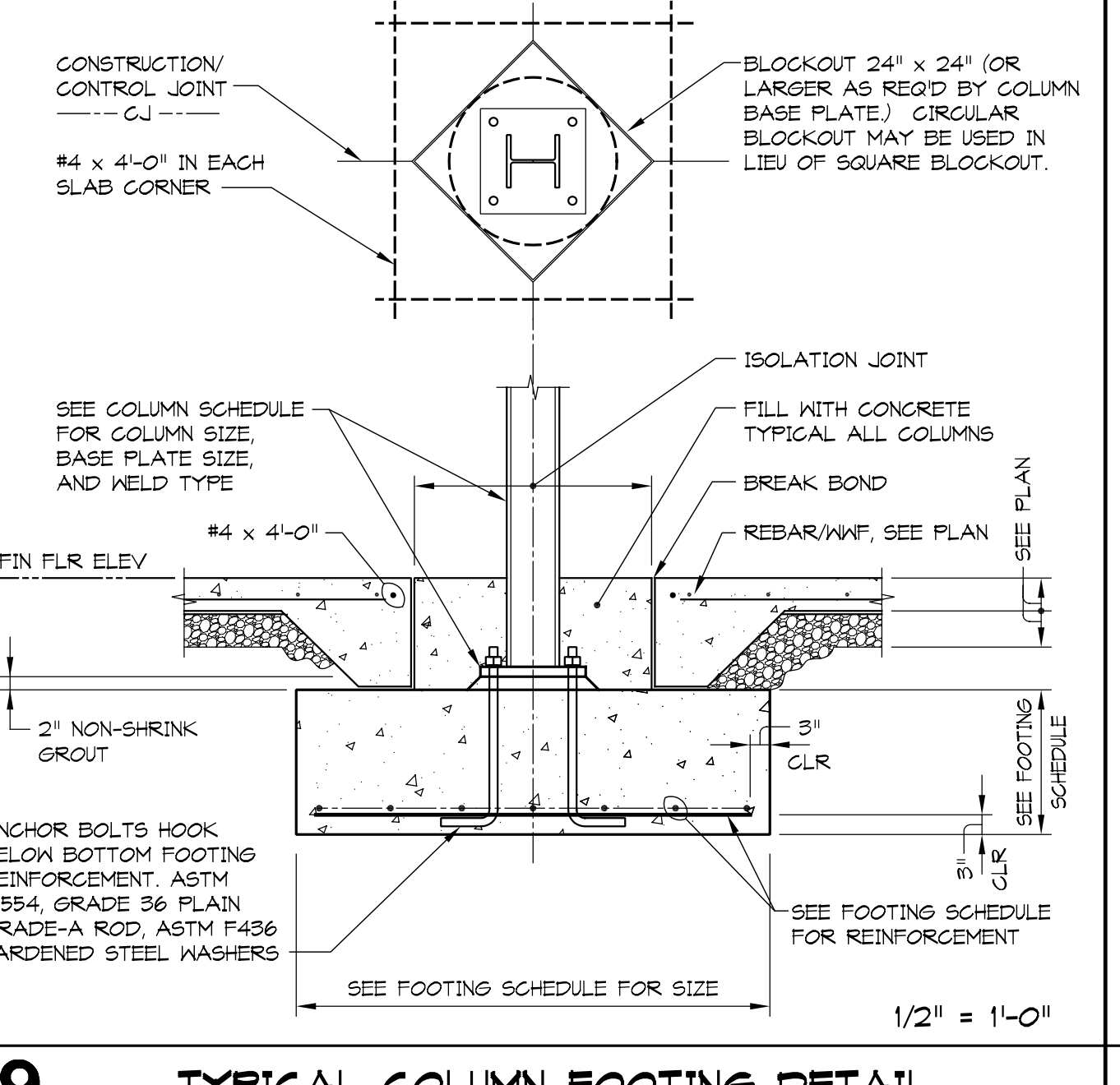
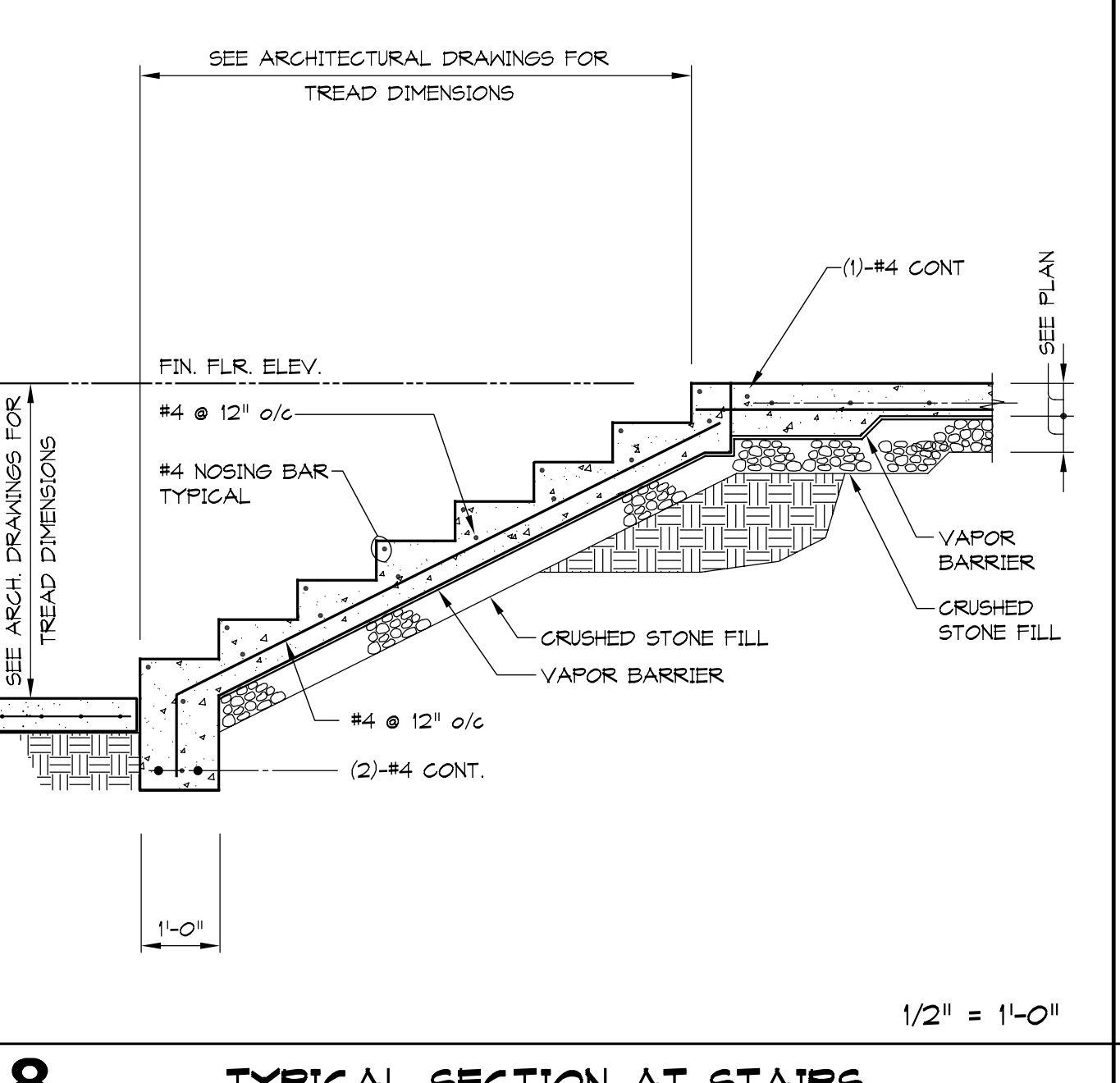
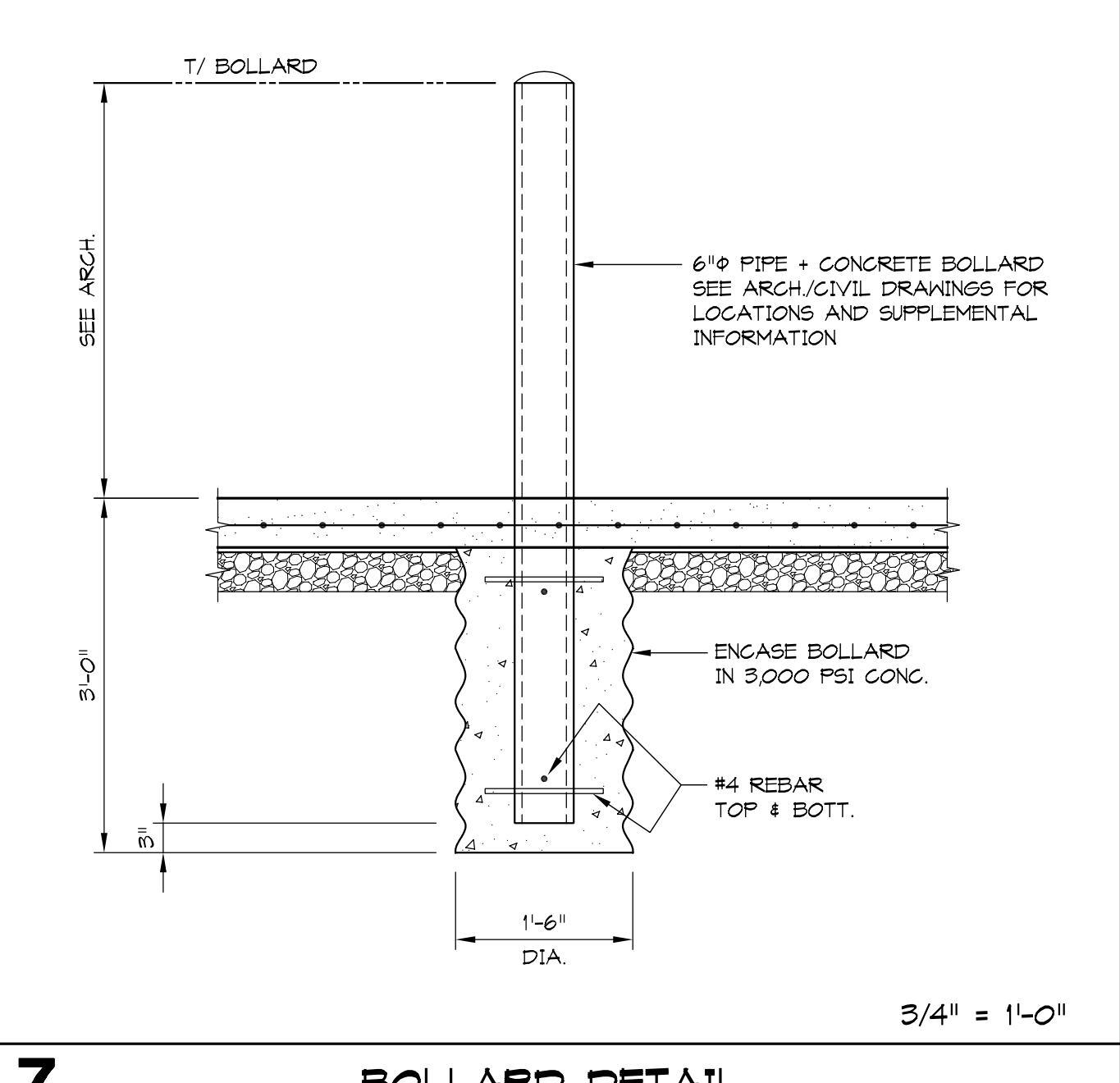
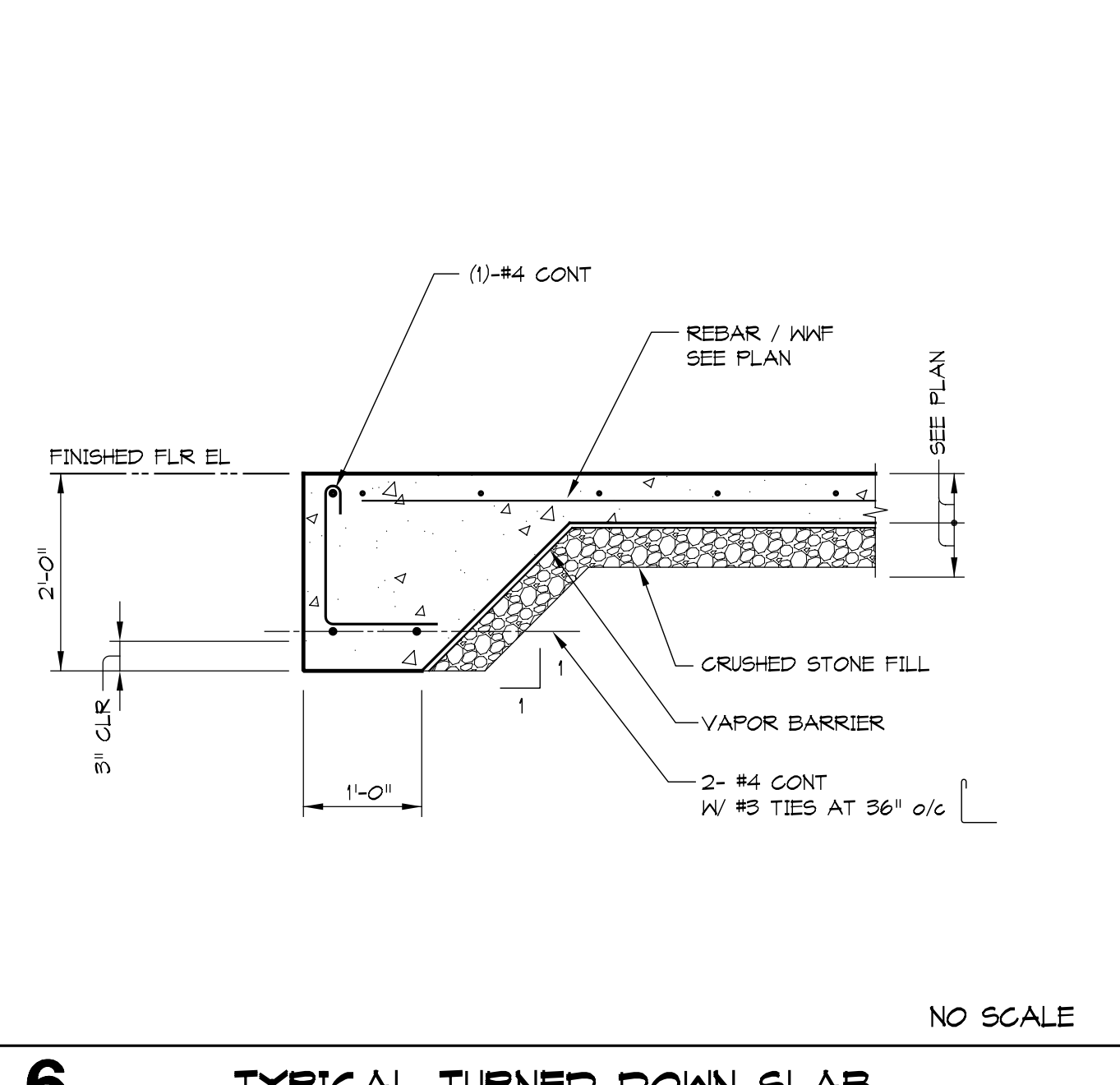
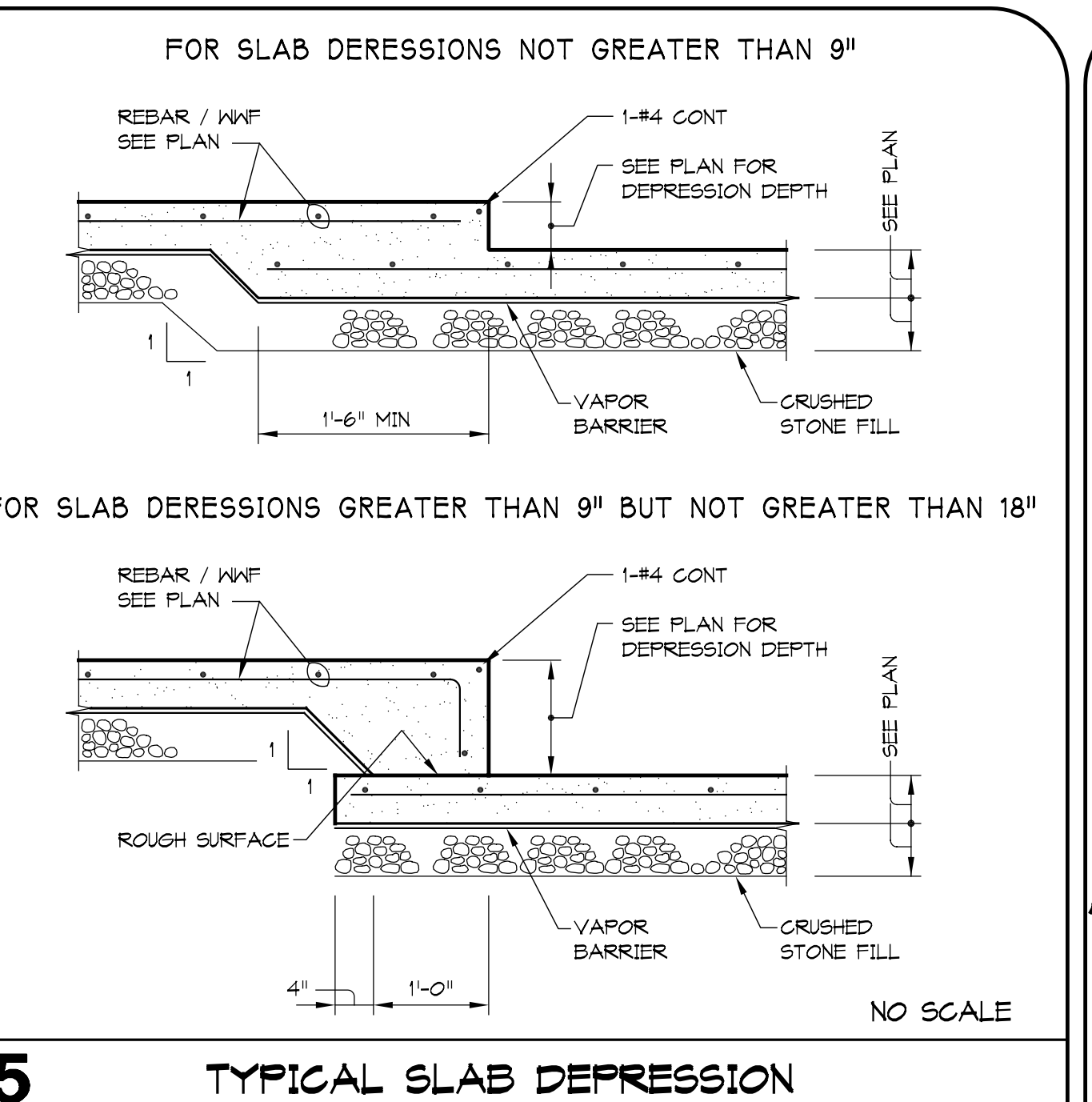
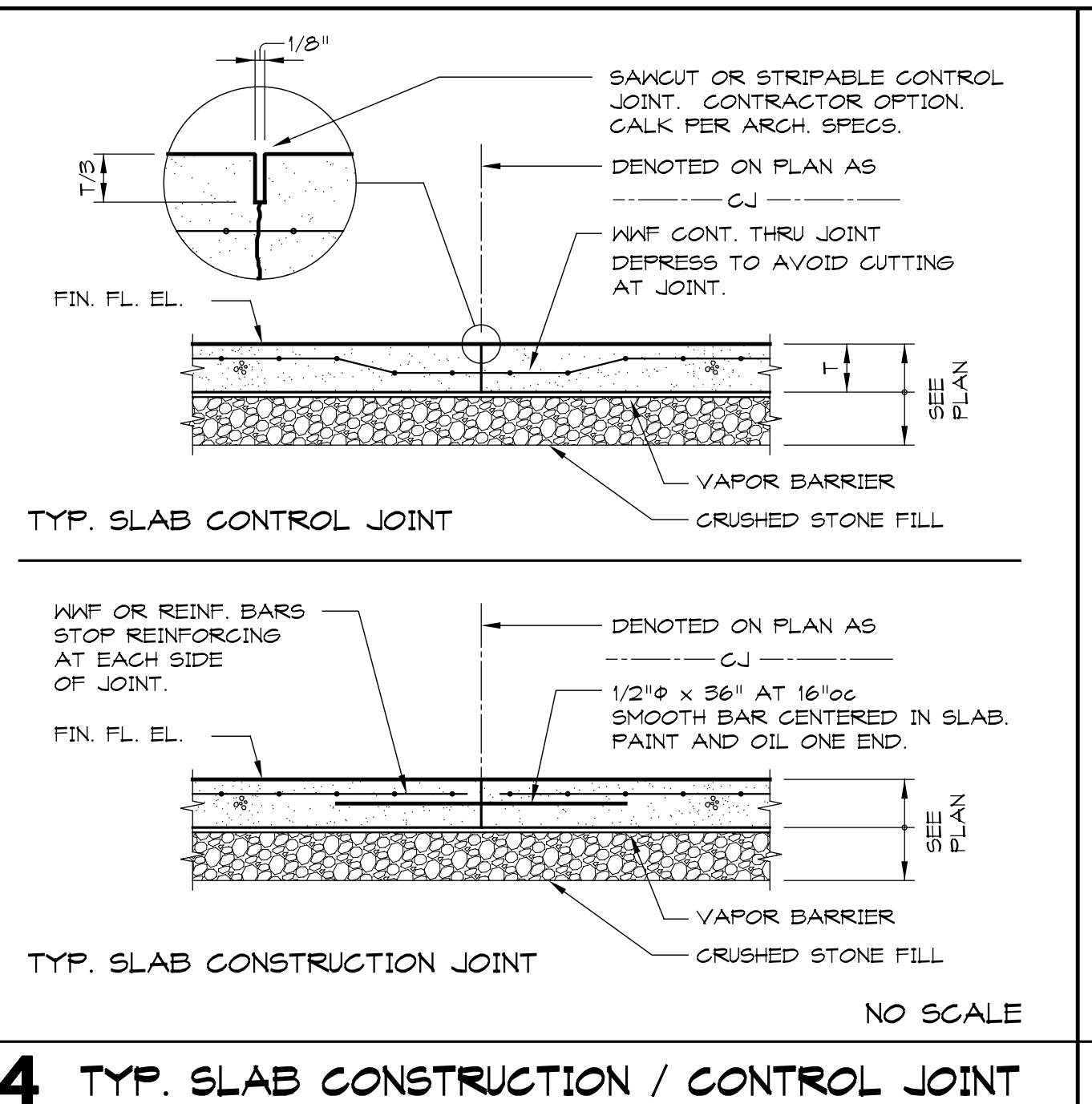
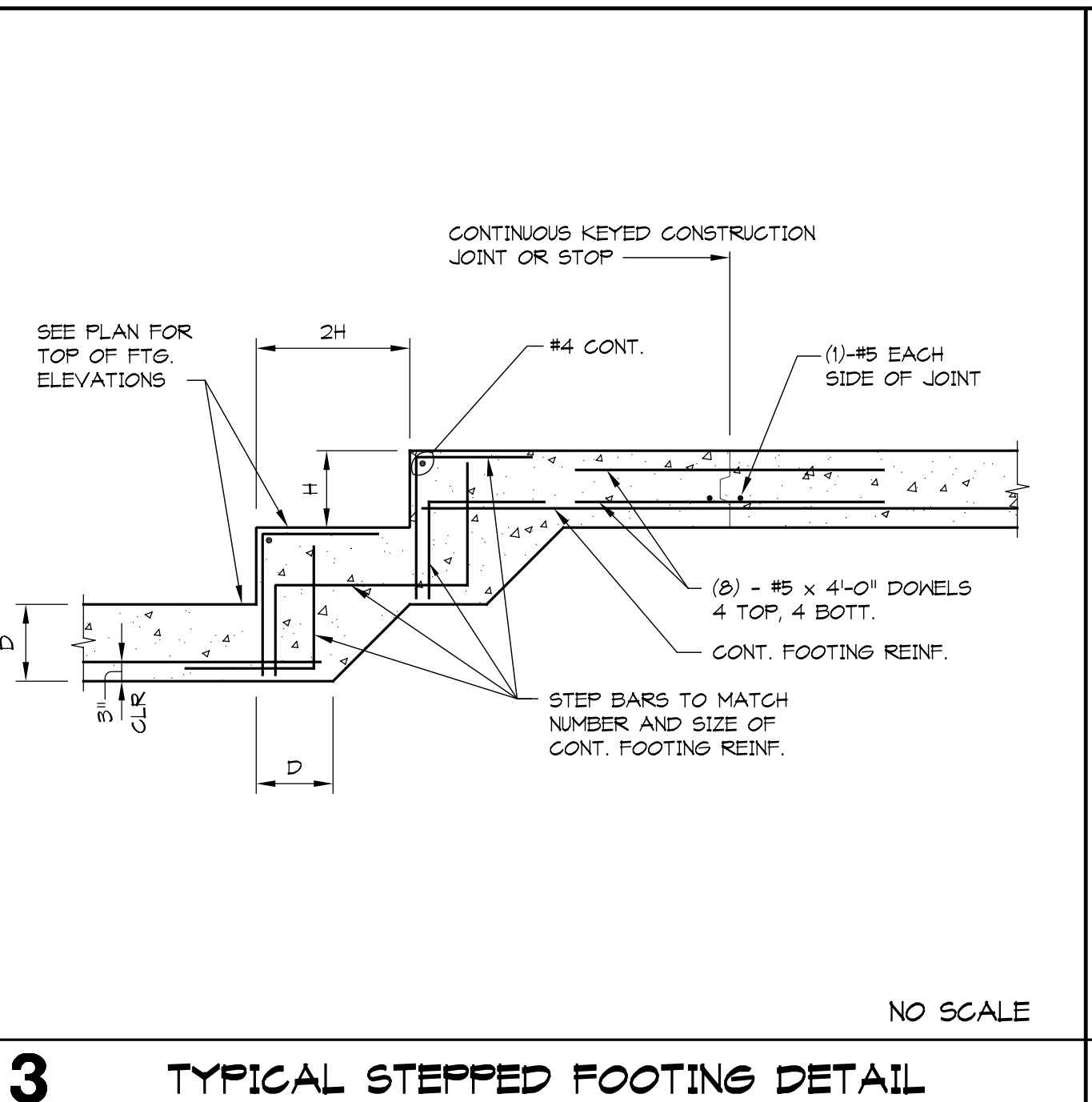
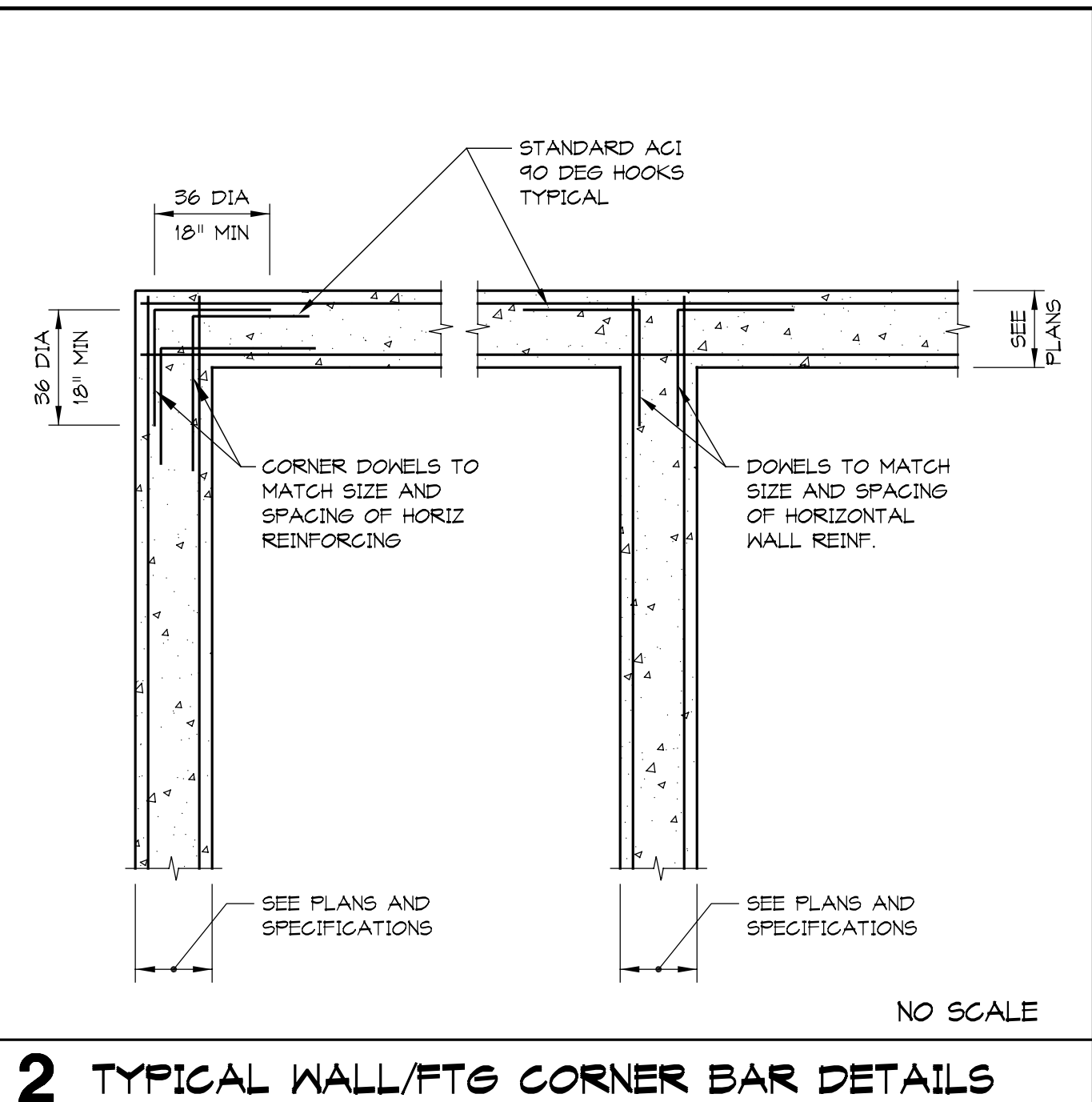
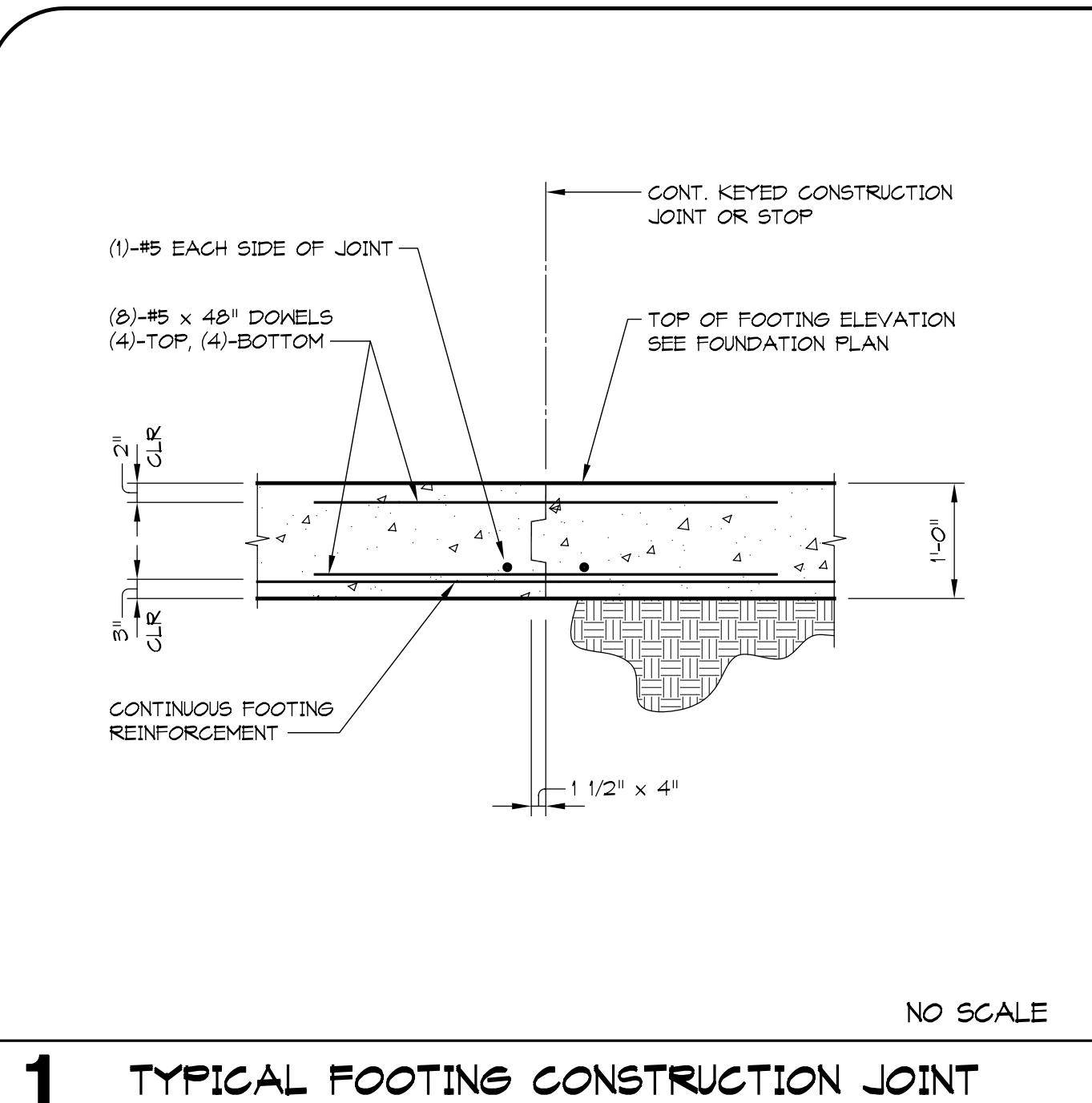


TYPICAL DETAILS

Rowan/Kannapolis
ABC STORE &
WAREHOUSE

SALISBURY
NORTH CAROLINA



1.3 l_{dh} TENSION DEVELOPMENT LENGTH (embedment)
For Beam, Slab and Wall Reinforcing (Grade 60 Bars - Normal Weight Concrete - General Use)

BAR SIZE	3,000		4,000		5,000		6,000		8,000	
	TOP	BOTT	TOP	BOTT	TOP	BOTT	TOP	BOTT	TOP	BOTT
#3	21.4	16.4	18.5	14.2	16.5	12.7	15.1	12.0	13.1	12.0
#4	28.5	21.9	24.7	19.0	22.1	17.0	20.1	15.5	17.4	13.4
#5	35.6	27.4	30.8	23.7	27.6	21.2	25.2	19.4	21.8	16.8
#6	42.7	32.9	37.0	28.5	33.1	25.5	30.2	23.2	26.2	20.1
#7	62.3	47.9	54.0	41.5	48.3	37.1	44.1	33.9	38.2	29.3
#8	71.2	54.8	61.7	47.4	55.2	42.4	50.3	38.7	43.6	33.5
#9	80.3	61.8	69.6	55.5	62.2	47.9	56.8	43.7	49.2	37.8
#10	90.4	69.6	60.2	60.2	70.0	53.9	63.9	49.2	55.4	42.6
#11	100.4	77.2	66.9	66.9	77.8	59.8	71.0	54.6	61.5	47.3

1. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 24x BAR DIA.) AND CLEAR COVER NOT LESS THAN THE BAR DIAMETER.

2. 170° BARS ARE HORIZONTAL REBARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BARS AT THE DEVELOPMENT LENGTH.

3. FOR LIGHT-WEIGHT CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.

1.3 l_{dh} TENSION LAP SPLICES
Class 'B' Splice For Top And Bottom Bars (Grade 60 Bars - Normal Weight Concrete - General Use)

BAR SIZE	3,000		4,000		5,000		6,000		8,000	
	TOP	BOTT	TOP	BOTT	TOP	BOTT	TOP	BOTT	TOP	BOTT
#3	21.8	21.4	24.0	18.5	21.5	16.5	19.6	15.6	17.0	15.6
#4	31.0	28.5	32.1	24.7	28.7	22.1	26.2	20.1	22.7	17.4
#5	46.3	35.6	40.1	30.8	35.9	27.6	32.7	25.2	28.3	21.8
#6	55.5	42.7	48.1	37.0	43.0	33.1	39.3	30.2	34.0	26.2
#7	81.0	62.3	70.1	54.0	62.7	48.3	57.3	44.1	49.6	38.2
#8	92.6	71.2	80.2	61.7	71.7	55.2	65.5	50.3	56.7	43.6
#9	104.4	80.3	90.4	69.6	80.9	62.2	73.8	56.8	63.9	49.2
#10	117.6	90.4	101.8	78.3	91.1	70.0	83.1	63.9	72.0	55.4
#11	130.5	100.4	115.0	86.9	101.1	77.8	92.3	71.0	79.9	61.5

FOR CLASS 'A' SPLICE (PERMITTED ONLY WHEN NOT MORE THAN HALF THE BARS SPLICED AND SPLICES STAGGERED BY THE DISTANCE OF SPLICE LENGTH), USE SAME AS 1.3 l_{dh} = TENSION DEVELOPMENT LENGTH TABLE.

1.6 l_{dc} COMPRESSION DEVELOPMENT LENGTH
(Inches) (Grade 60 Bars - Normal Weight Concrete - General Use)

BAR SIZE	3,000		4,000		5,000		6,000		8,000	
	3,000	4,000	5,000	6,000	8,000	3,000	4,000	5,000	6,000	8,000
#3	8.2	7.1	6.4	6.0	6.0	11.0	9.5	9.0	8.0	9.0
#4	11.0	9.5	8.5	7.7	6.7	13.7	11.9	11.3	11.3	11.3
#5	13.7	11.9	10.6	9.7	8.4	16.4	14.2	13.5	13.5	13.5
#6	16.4	14.2	12.7	11.6	10.1	19.2	16.6	15.8	15.8	15.8
#7	19.2	16.6	14.8	13.6	11.7	21.9	19.0	18.0	18.0	18.0
#8	21.9	19.0	17.0	15.5	13.4	24.7	21.4	20.3	20.3	20.3
#9	24.7	21.4	19.1	17.5	15.1	27.8	24.1	22.9	22.9	22.9
#10	27.8	24.1	21.6	19.7	17.0	30.9	26.8	25.4	25.4	25.4
#11	30.9	26.8	23.9	21.8	18.9	34.1	29.1	27.5	27.5	27.5
#12	34.1	29.1	25.9	23.5	20.3	37.3	31.9	30.5	30.5	30.5
#13	37.3	31.9	28.5	25.9	22.1	40.5	34.5	33.1	33.1	33.1
#14	40.5	34.5	31.1	28.1	24.1	43.7	37.1	35.5	35.5	35.5
#15	43.7	37.1	33.7	30.7	26.1	46.9	40.1	38.5	38.5	38.5
#16	46.9	40.1	36.7	33.7	28.1	50.1	43.1	41.5	41.5	41.5
#17	50.1	43.1	39.7	36.7	30.1	53.3	46.1	44.5	44.5	44.5
#18	53.3	46.1	42.7	39.7	33.1	56.5	49.1	47.5	47.5	47.5
#19	56.5	49.1	45.7	42.7	36.1	59.7	52.1	50.5	50.5	50.5
#20	59.7	52.1	48.7	45.7	39.1	62.9	55.1	53.5	53.5	53.5
#21	62.9	55.1	51.7	48.7	42.1	66.1	58.1	56.5	56.5	56.5
#22	66.1	58.1	54.7	51.7	45.1	69.3	61.1	59.5	59.5	59.5
#23	69.3	61.1	57.7	54.7	48.1	72.5	64.1	62.5	62.5	62.5
#24	72.5	64.1	60.7	57.7	51.1	75.7	67.1	65.5	65.5	65.5
#25	75.7	67.1	63.7	60.7	54.1	78.9	70.1	68.5	68.5	68.5
#26	78.9	70.1	66.7	63.7	57.1	82.1	73.1	71.5	71.5	71.5
#27	82.1	73.1	70.7	67.7	60.1	85.3	76.1	74.5	74.5	74.5
#28	85.3	76.1	73.7	70.7	63.1	88.5	79.1	77.5	77.5	77.5
#29	88.5	79.1	76.7	73.7	66.1	91.7	82.1	80.5	80.5	80.5
#30	91.7	82.1	79.7	76.7	69.1	94.9	85.1	83.5	83.5	83.5
#31	94.9	85.1	82.7	79.7	72.1	98.1	88.1	86.5	86.5	86.5
#32	98.1	88.1	85.7	82.7	75.1	101.3	91.1	89.5	89.5	89.5
#33	101.3	91.1	88.7	85.7	78.1	104.5	94.1	92.5	92.5	92.5
#34	104.5	94.1	91.7	88.7	81.1	107.7	97.1	95.5	95.5	95.5
#35	107.7	97.1	94.7	91.7	84.1	110.9	100.1	98.5	98.5	98.5
#36	110.9	100.1	97.7	94.7	87.1	114.1	103.1	101.5	101.5	101.5
#37	114.1	103.1	100.7	97.7	90.1	117.3	106.1	104.5	104.5	104.5
#38	117.3	106.1	103.7	100.7	93.1	120.5	109.1	107.5	107.5	107.5
#39	120.5	109.1	106.7	103.7	96.1	123.7	112.1	110.5	110.5	110.5
#40	123.7	112.1	109.7	106.7	99.1	126.9	115.1	113.5	113.5	113.5
#41	126.9	115.1	112.7	109.7	102.1	130.1	118.1	116.5	116.5	116.5
#42	130.1	118.1	115.7	112.7	105.1	133.3	121.1	119.5	119.5	119.5
#43	133.3	121.1	118.7	115.7	108.1	136.5	124.1	122.5	122.5	122.5
#44	136.5	124.1	121.7	118.7	111.1	139.7	127.1	125.5	125.5	125.5
#45	139.7	127.1	124.7	121.7	114.1	142.9	130.1	128.5	128.5	128.5
#46	142.9	130.1	127.7	124.7	117.1	146.1	133.1	131.5	131.5	131.5
#47	146.1	133.1	130.7	127.7	120.1	149.3	136.1	134.5	134.5	134.5
#48	149.3	136.1	133.7	130.7	123.1	152.5	139.1	137.5	137.5	137.5
#49	152.5	139.1	136.7	133.7	126.1	155.7	142.1	140.5	140.5	140.5
#50	155.7	142.1	139.7	136.7	129.1	158.9	145.1	143.5	143.5	143.5
#51	158.9	145.1	142.7	139.7	132.1	162.1	148.1	146.5	146.5	146.5
#52	162.1	148.1	145.7	142.7	135.1	165.3	151.1	149.5	149.5	149.5
#53	165.3	151.1	148.7	145.7	138.1	168.5	154.1	152.5	152.5	152.5
#54	168.5	154.1	151.7	148.7	141.1	171.7	157.1	155.5	155.5	155.5
#55	171.7	157.1	154.7	151.7	144.1	174.9	160.1	158.5	158.5	158.5
#56	174.9	160.1	157.7	154.7	147.1	178.1	163.1	161.5	161.5	161.5
#57	178.1	163.1	160.7	157.7	150.1	181.3	166.1	164.5	164.5	164.5
#58	181.3	166.1	163.7	160.7	153.1	184.5	169.1	167.5	167.5	167.5
#59	184.5	169.1	166.7	163.7	156.1	187.7	172.1	170.5	170.5	170.5