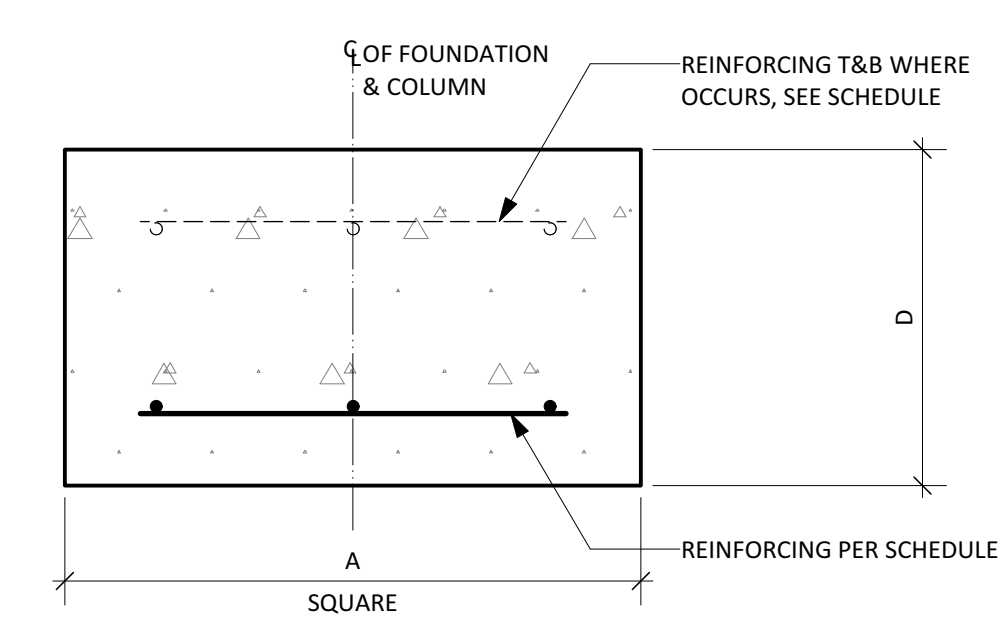


SPREAD FOUNDATION SCHEDULE				
TYPE	A	D	REINFORCING	REMARKS
F-1.5	1'-6"	1'-0"	(3) #5 BAR EA. WAY	T&B
F-2.0	2'-0"	1'-6"	(3) #5 BAR EA. WAY	
F-2.5	2'-6"	1'-6"	(3) #5 BAR EA. WAY	
F-3.0	3'-0"	1'-6"	(4) #5 BAR EA. WAY	
F-4.0	4'-0"	1'-6"	(5) #5 BAR EA. WAY	



7 TYPICAL SPREAD FOUNDATION SCHEDULE

REINFORCING DEVELOPMENT NOTES:

- SCHEDULED DEVELOPMENT AND SPLICE LENGTHS ARE IN ACCORDANCE WITH ACI 318 AND APPLY TO REBAR $f_y = 60$ KSI.

CATEGORY	DESCRIPTION
1	$2db \leq CC \leq 4db \leq CS$
2	$[db \leq CC < 2db \text{ OR } db \leq CS] \text{ OR } [db \leq CC \& 2db \leq CS < 4db]$
3	$1/2db \leq CC < db \text{ OR } db \leq CS < 2db$

CC INDICATES CONCRETE COVER, CS INDICATES BAR CLEAR SPACING.

- TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" CONCRETE POURED BELOW BARS. HORIZONTAL BARS IN CONCRETE WALLS OR STEMS ARE NOT CONSIDERED TOP BARS.

- APPLY THE FOLLOWING MULTIPLIERS TO SCHEDULED DEVELOPMENT AND SPLICE LENGTHS FOR EACH INSTANCE BELOW WHICH APPLIES:
 - FOR REBAR YIELD STRENGTHS OTHER THAN 60 KSI, MULTIPLY DEVELOPMENT LENGTHS L_d AND L_{dh} AND SPLICES BY RATIO OF ACTUAL YIELD STRENGTH (KSI) / 60.
 - DEVELOP/SPLICE ALL LONGITUDINAL BARS IN SHEAR WALLS AND DIAGONAL BARS IN COUPLING BEAMS BY MULTIPLYING DEVELOPMENT LENGTHS L_d AND L_{dh} BY 1.25 UNON ON STRUCTURAL DRAWINGS.
 - FOR LIGHTWEIGHT CONCRETE, MULTIPLY DEVELOPMENT LENGTH L_d AND L_{dh} BY 1.33.
 - FOR EPOXY COATED BARS WITH $CC < 3db$ OR $CS < 6db$, MULTIPLY STRAIGHT DEVELOPMENT/SPLICE LENGTH L_d BY 1.5. FOR ALL OTHER EPOXY CONDITIONS MULTIPLY L_d AND L_{dh} BY 1.2.

- SPLICE LENGTHS MAY BE REDUCED BY 23" IF SPECIFICALLY NOTED ON STRUCTURAL DRAWINGS AS CLASS "A" SPLICE.

- WHERE BARS OF DIFFERENT SIZES ARE LAP SPICED, LENGTH SHALL BE THE LARGER OF L_d (STRAIGHT BAR DEVELOPMENT) FOR LARGER BAR AND LAP SPLICE LENGTH OF SMALLER BAR.

HOOKED DEVELOPMENT LENGTH SCHEDULE (L_{dh}) IN INCHES

BAR SIZE	BAR DIAMETER (db)	3000 PSI		4000 PSI	
		TOP	OTHERS	TOP	OTHERS
#3	0.375"	6	6		
#4	0.5"	8	7		
#5	0.625"	10	9		
#6	0.75"	12	10		
#7	0.875"	14	12		
#8	1.0"	16	14		
#9	1.125"	18	15		
#10	1.25"	20	17		
#11	1.41"	22	19		

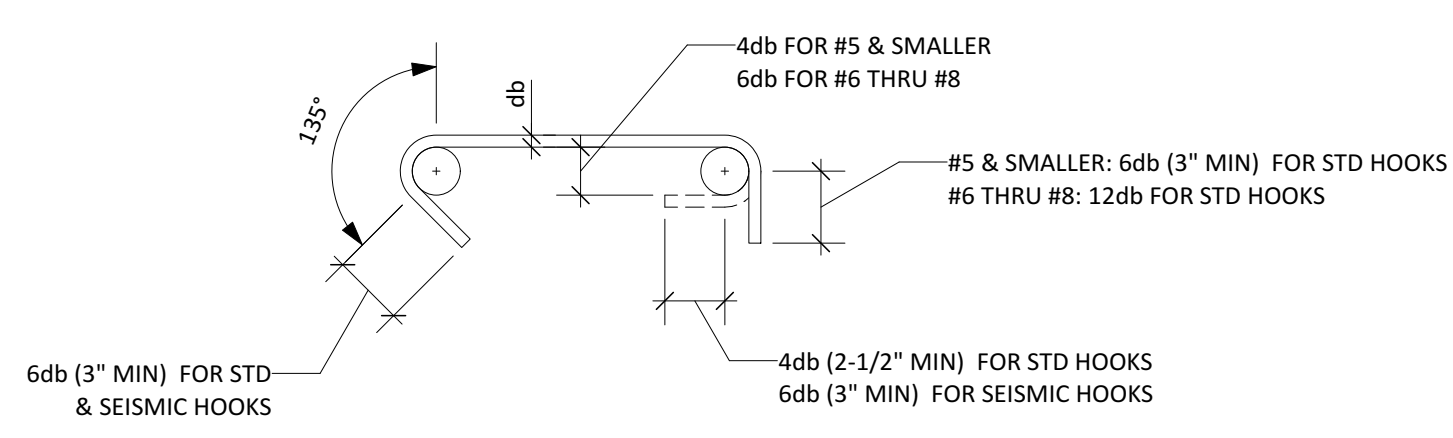
STRAIGHT DEVELOPMENT LENGTH SCHEDULE (L_d) IN INCHES

BAR SIZE	BAR DIAMETER (db)	3000 PSI						4000 PSI					
		TOP		OTHERS		TOP		OTHERS		TOP		OTHERS	
		1	2	1	2	1	2	1	2	1	2		
#3	0.375"	16	12	24	12	32	24	12	12	19	13	27	24
#4	0.5"	18	14	29	22	43	33	15	12	25	19	37	29
#5	0.625"	22	17	36	28	54	42	19	15	31	24	47	36
#6	0.75"	26	20	43	33	65	50	23	18	37	29	56	43
#7	0.875"	38	29	63	48	94	72	33	25	54	42	81	63
#8	1.0"	43	33	72	55	107	83	37	29	62	48	93	72
#9	1.125"	49	38	81	63	121	93	42	33	70	54	105	81
#10	1.25"	55	42	93	72	136	105	47	37	79	61	118	91
#11	1.41"	61	47	102	79	151	116	53	41	87	67	131	101

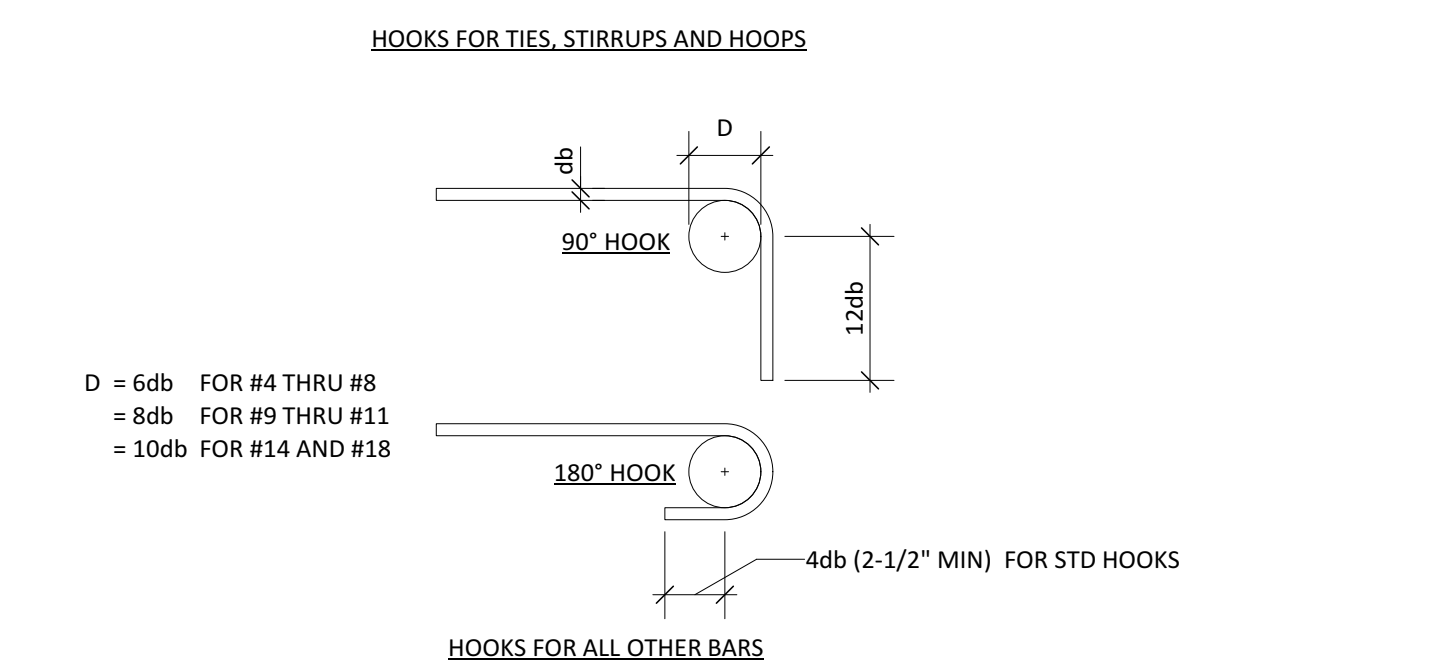
SPLICE LENGTH SCHEDULE IN INCHES

BAR SIZE	BAR DIAMETER (db)	3000 PSI						4000 PSI					
		TOP		OTHERS		TOP		OTHERS		TOP		OTHERS	
		1	2	1	2	1	2	1	2	1	2		
#3	0.375"	18	14	29	22	42	32	12	12	25	19	37	27
#4	0.5"	23	18	38	29	56	43	20	15	33	25	49	37
#5	0.625"	28	22	47	36	70	54	25	19	41	31	61	47
#6	0.75"	34	26	56	43	84	65	29	23	49	37	73	56
#7	0.875"	49	38	81	63	122	94	43	33	71	54	106	81
#8	1.0"	56	43	93	72	139	107	49	37	81	62	121	93
#9	1.125"	63	49	105	81	157	121	55	42	91	70	136	105
#10	1.25"	71	55	118	91	177	136	62	47	102	79	153	118
#11	1.41"	79	61	131	101	196	151	68	53	114	87	170	131

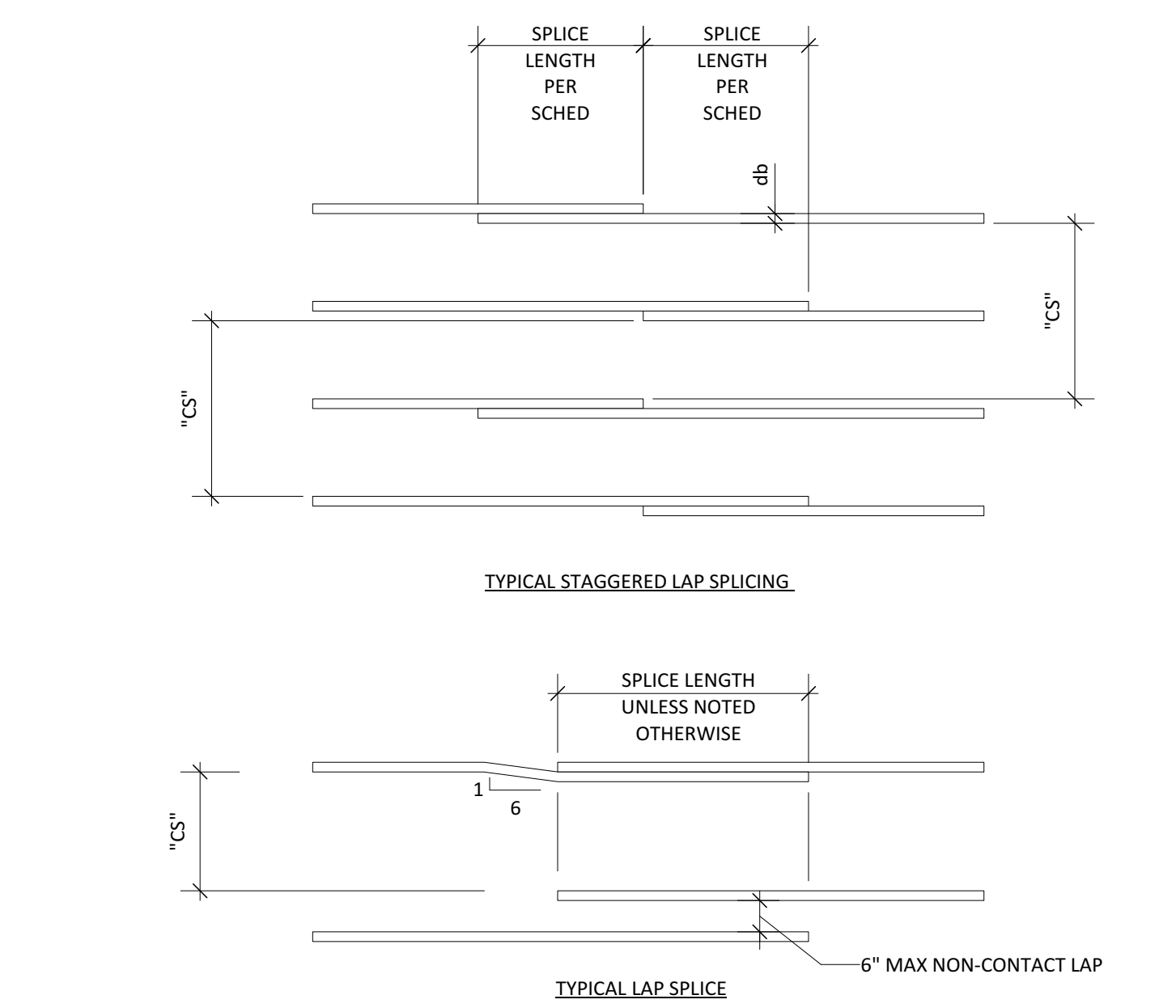
6 TYPICAL REINFORCING DEVELOPMENT AND SPLICE SCHEDULES



NOTE: WHERE CROSS TIES (THOSE WHERE 90° HOOKS AT ONE END ARE PERMITTED) ENGAGE SAME LONGITUDINAL BAR, CONSECUTIVE CROSS TIES SHALL HAVE THEIR 90° HOOKS ALTERNATING SIDES ALONG LONGITUDINAL BAR.



1 TYPICAL REINFORCING STEEL STANDARD AND SEISMIC HOOK DETAILS



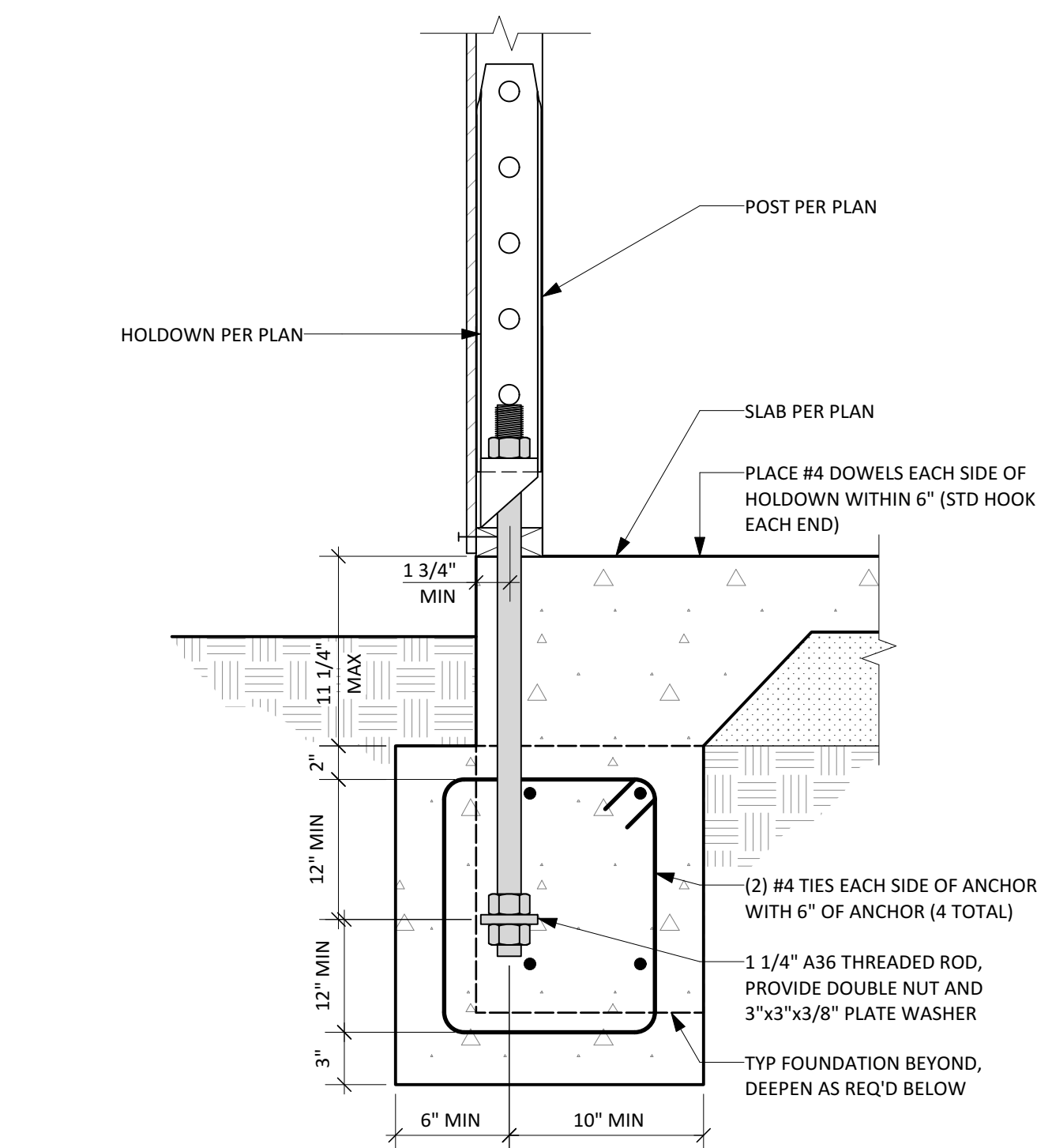
2 TYPICAL LAP SPLICE DETAILS

PROVIDE THE FOLLOWING CONCRETE CLEAR COVER (CC) FOR REINFORCING STEEL PLACED IN CAST-IN-PLACE CONCRETE

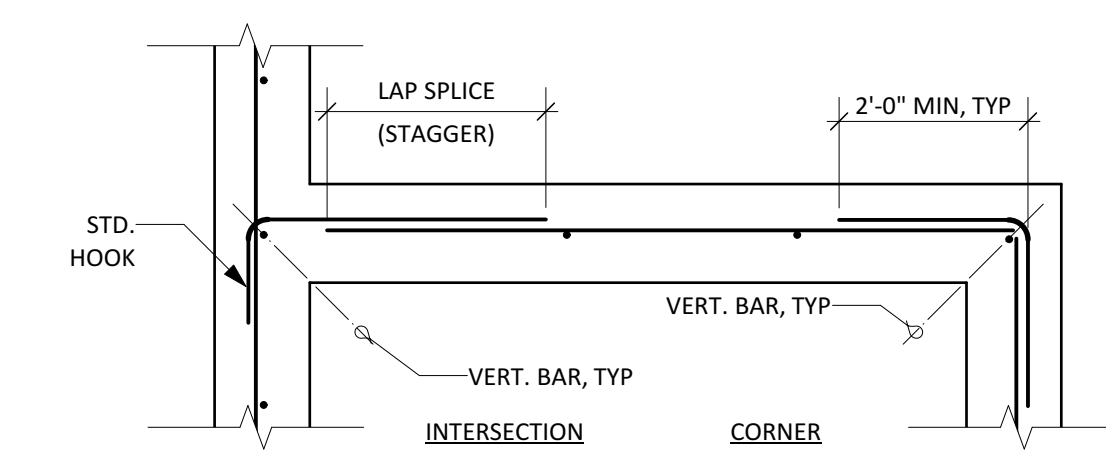
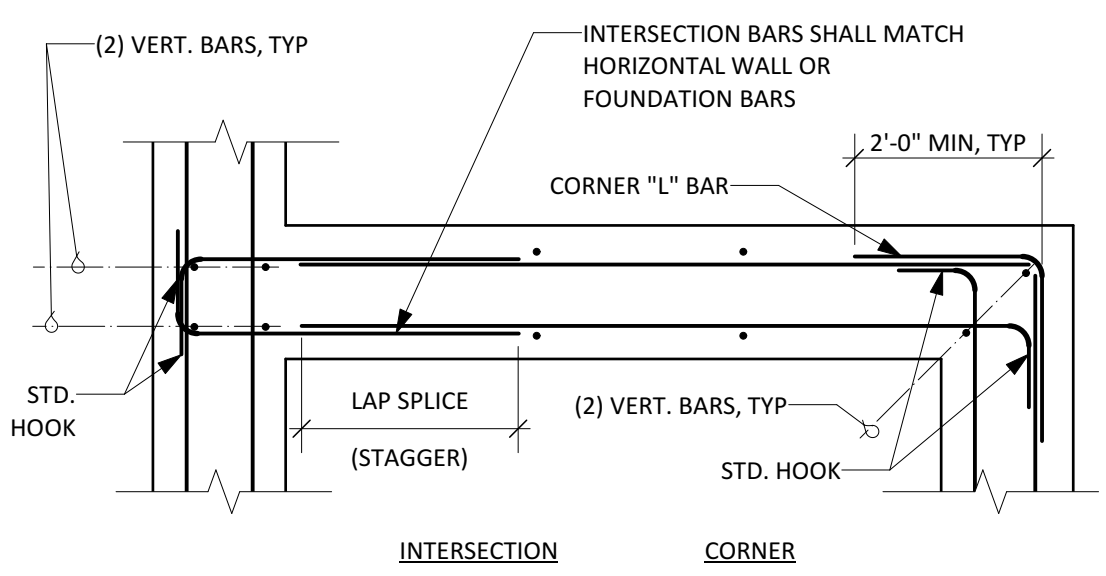
- A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH..... 3"
- B. CONCRETE EXPOSED TO EARTH OR WEATHER:
 - NO. 6 THROUGH NO. 18 BARS..... 2"
 - NO. R BARS, W31 OR D31 WIRE, AND SMALLER..... 1-1/2"
- C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
 - SLAB, WALL, JOISTS:
 - NO. 14 AND NO. 18 BARS..... 1-1/2"
 - NO. 11 BARS AND SMALLER..... 1"
 - BEAMS AND COLUMNS:
 - PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS... 1-1/2"

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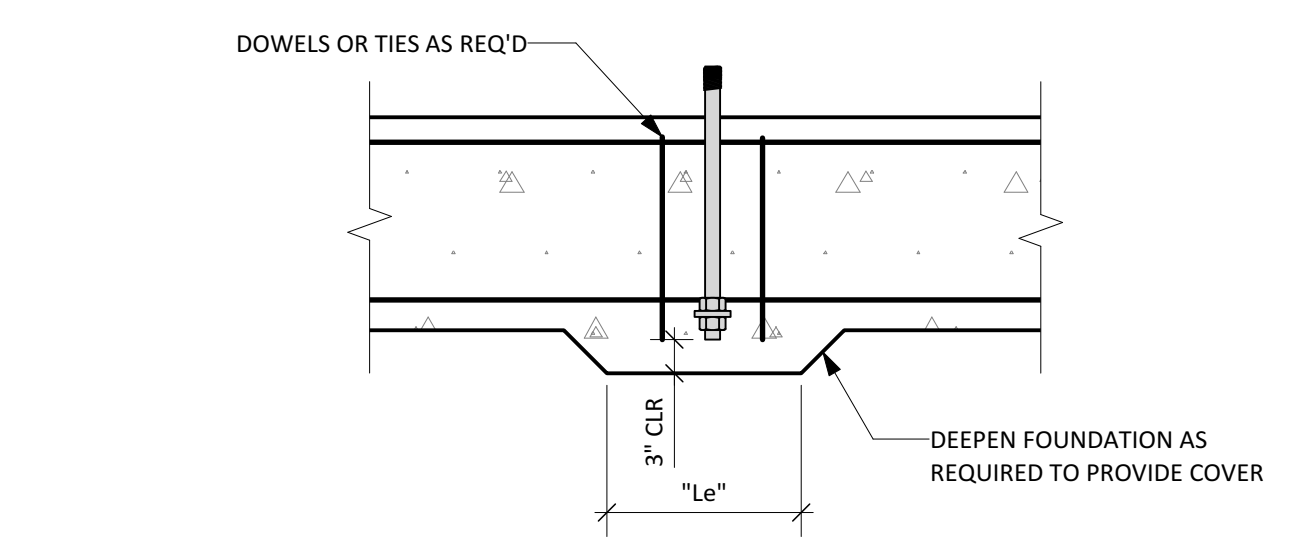
3 TYPICAL CONCRETE CLEAR COVER



8 TYPICAL WALL OR FOUNDATION INTERSECTIONS



9



HOLDOWN SCHEDULE					
STRAP	HD BOLT	THREADED ROD	"Le"	FASTENER	POST
HTT5	SSTB24	5/8" (A36)	20 5/8"	(26) 16d	2-2x
HDU8	SSTB28L	7/8" (A36)	24 7/8"	(20) 1/4x2-1/2 SDS	4x4
HDU11	SB1x30	1" (A36)	24"	(30) 1/4x2-1/2 SDS	4x6
HDU14	SB1x30	1" (A36)	24"	(36) 1/4x2-1/2 SDS	6x6 OR 4x8
HD19	1-1/4" (A36)	1-1/4" (A36)	30"	(5) 1" MB	6x6 OR 4x8

12 TYPICAL HOLDDOWN



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