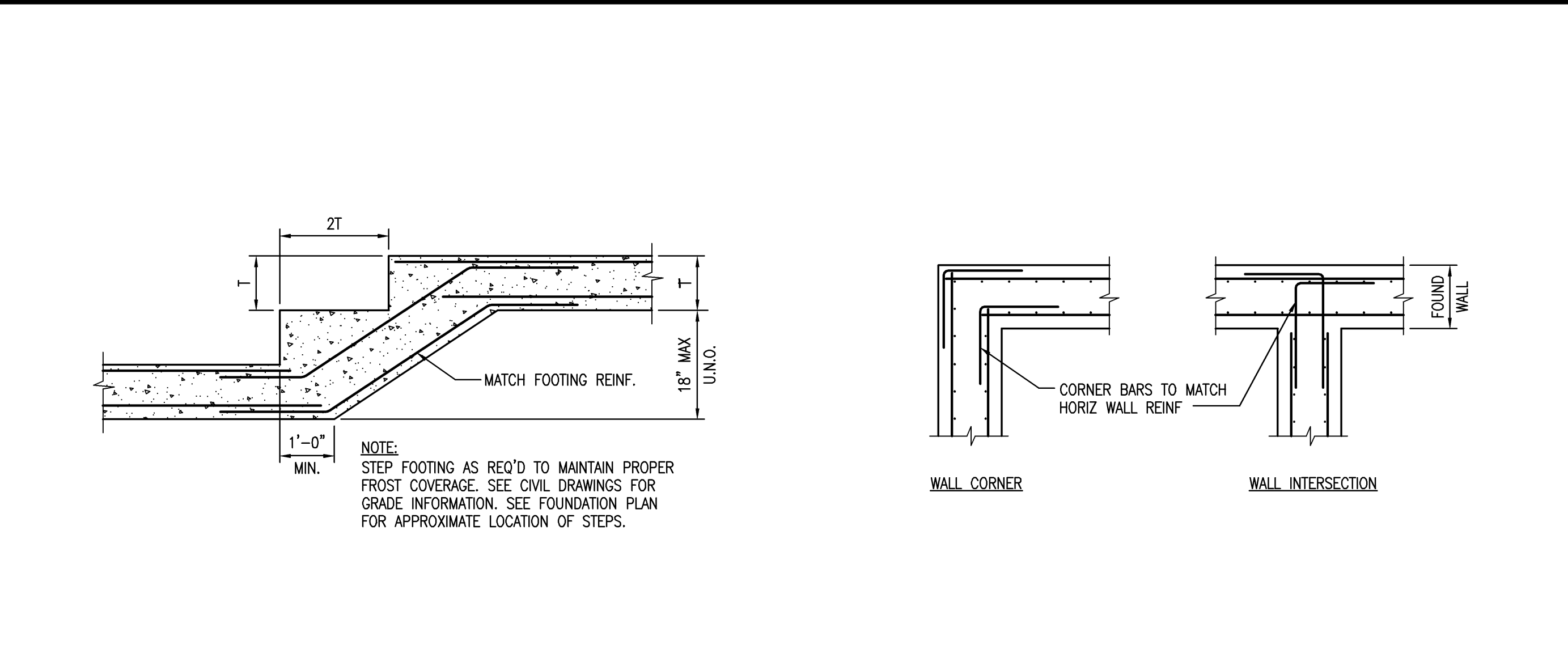


**INTERNAL COLUMN FOOTING SECTION (TYP.)**  
SCALE: 3/4" = 1'-0"  
S02.01.04, S02.01.05 **15**



**STEP FOOTING DETAIL**  
SCALE: 1/2" = 1'-0" **10**

**TENSION DEVELOPMENT LENGTH (inches) FOR DEFORMED BARS IN CONCRETE**

BAR SIZE	f <sub>c</sub> = 3000 psi f <sub>y</sub> = 60,000 psi		f <sub>c</sub> = 4000 psi f <sub>y</sub> = 60,000 psi	
	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS
#3	12	13	12	12
#4	14	18	12	16
#5	17	22	15	19
#6	20	26	18	23
#7	29	38	25	34
#8	33	43	29	37
#9	37	48	32	42
#10	45	56	39	50
#11	55	71	48	62

α = 1.0 FOR OTHER BARS AND 1.3 FOR TOP BARS  
β = 1.0 FOR UNCOATED BARS  
γ = 0.8 FOR #6 AND SMALLER AND 1.0 FOR #7 AND LARGER BARS  
λ = 1.0 FOR NORMAL WEIGHT CONCRETE

TABLE BASED ON ACI 318-02 & ACI 318-05

**SHEET NOTES**

BLOCK COURSING SHOWN IS A GRAPHIC REPRESENTATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION. REFERENCE ARCHITECTURAL DRAWINGS FOR COURSING ELEVATION.

REFERENCE ARCHITECTURAL DRAWINGS FOR ALL INSULATING AND WATERPROOFING REQUIREMENTS.

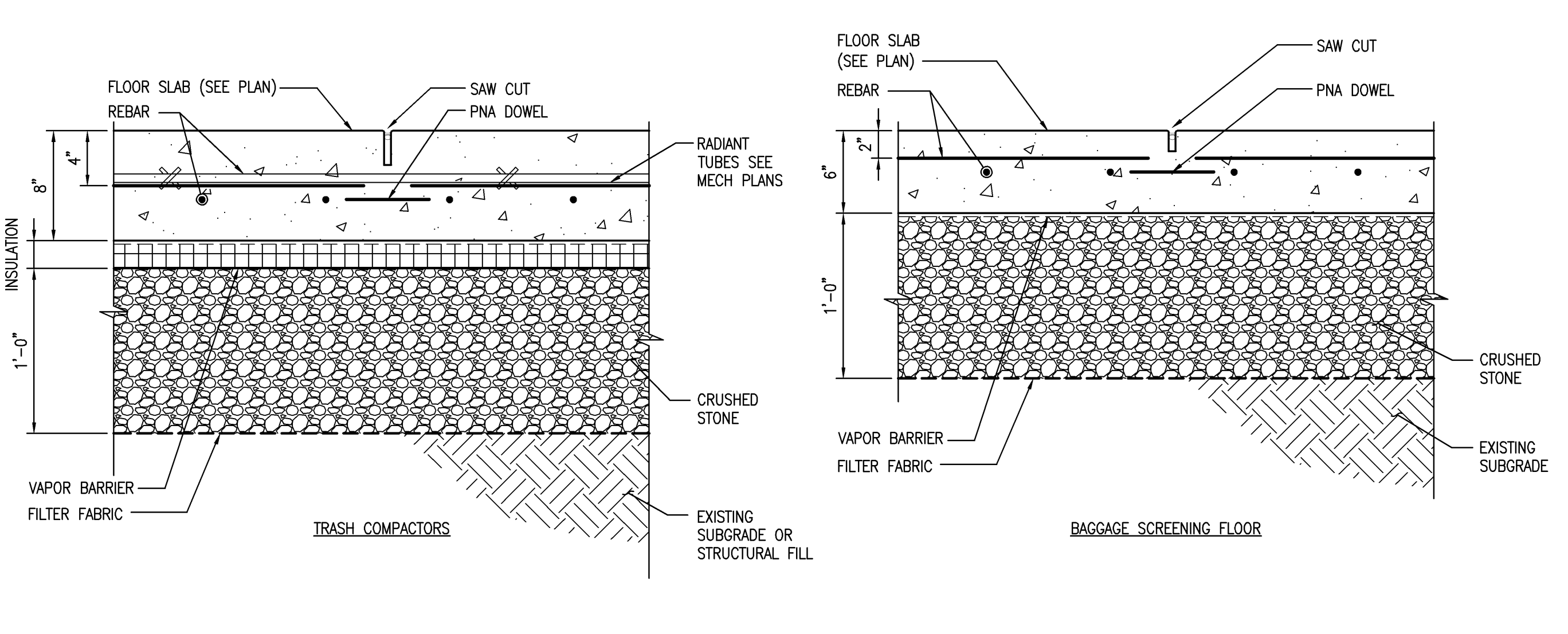
REFERENCE S02.01.00 FOR ALL UNDERSLAB DRAINAGE REQUIREMENTS.

REFERENCE SHEETS S12.01 & S12.02 FOR TYPICAL FOUNDATION AND CONCRETE REINFORCING STANDARDS.

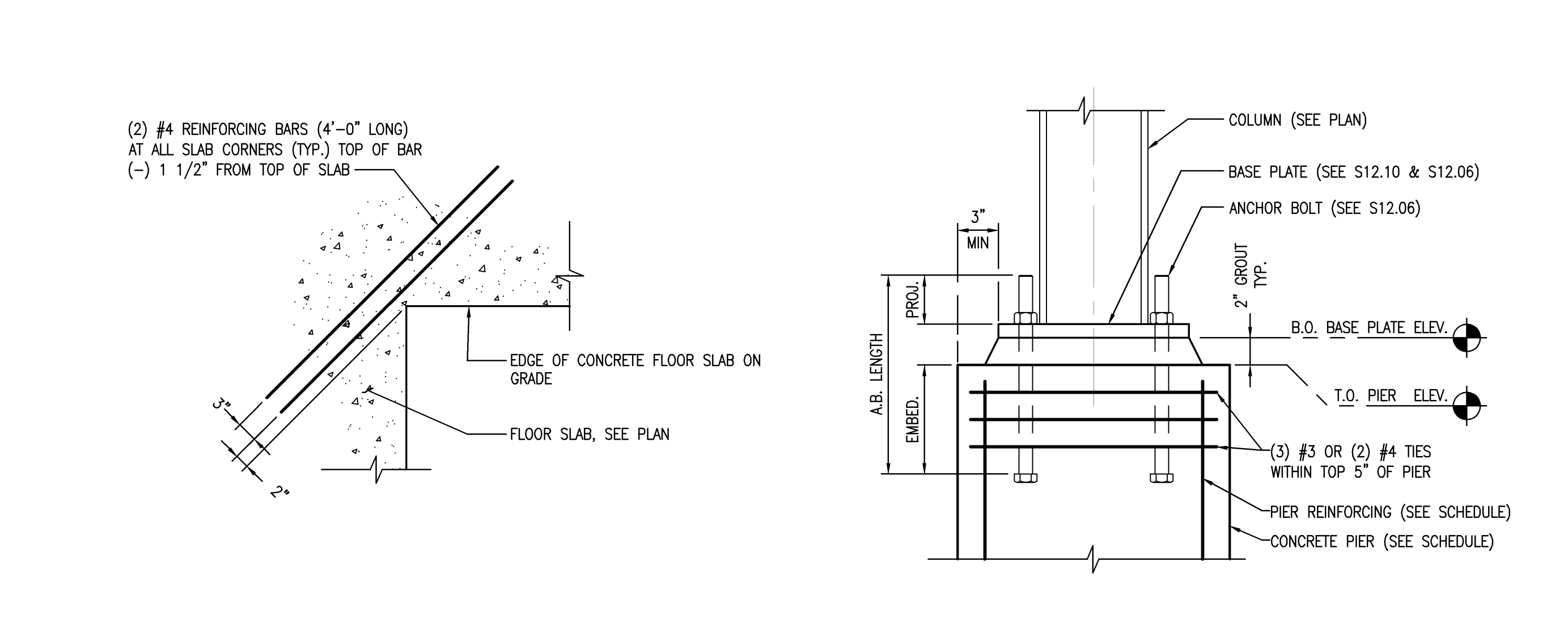
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**FLOOR DETAIL**  
SCALE: 1-1/2" = 1'-0" **20**



**COLUMN / PIER DETAIL**  
SCALE: 1-1/2" = 1'-0" **5**

**TENSION LAP SPICE LENGTH (inches) FOR DEFORMED BARS IN CONCRETE**

BAR SIZE	f <sub>c</sub> = 3000 psi f <sub>y</sub> = 60,000 psi		f <sub>c</sub> = 4000 psi f <sub>y</sub> = 60,000 psi	
	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS
#3	16	16	13	16
#4	18	23	16	20
#5	22	28	20	25
#6	27	35	23	29
#7	38	49	33	42
#8	43	56	37	48
#9	48	63	42	55
#10	58	76	50	65
#11	71	93	62	80
#14	NOT PERMITTED	NOT PERMITTED	NOT PERMITTED	NOT PERMITTED

α = 1.0 FOR OTHER BARS AND 1.3 FOR TOP BARS  
β = 1.0 FOR UNCOATED BARS  
γ = 0.8 FOR #6 AND SMALLER AND 1.0 FOR #7 AND LARGER BARS  
λ = 1.0 FOR NORMAL WEIGHT CONCRETE

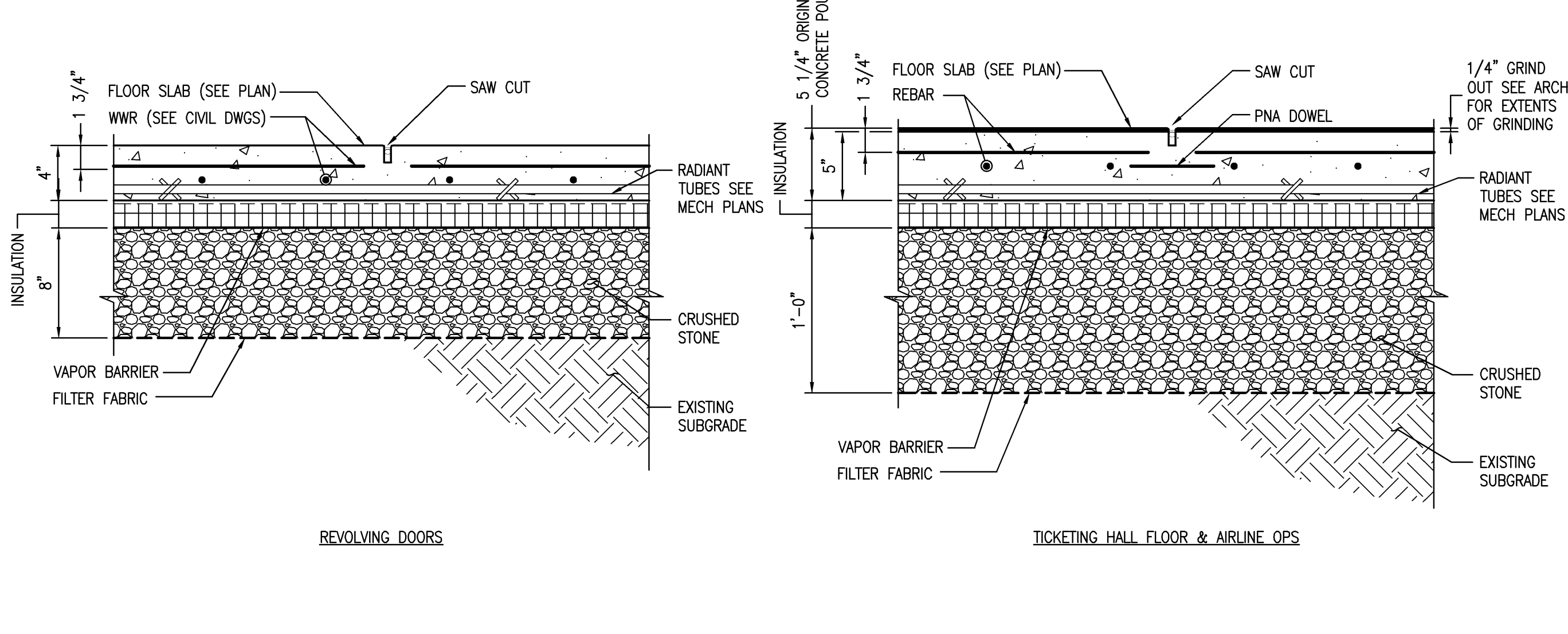
TABLE BASED ON ACI 318-02 & ACI 318-05

**TENSION DEVELOPMENT LENGTH (inches) FOR STANDARD 90° HOOKS**

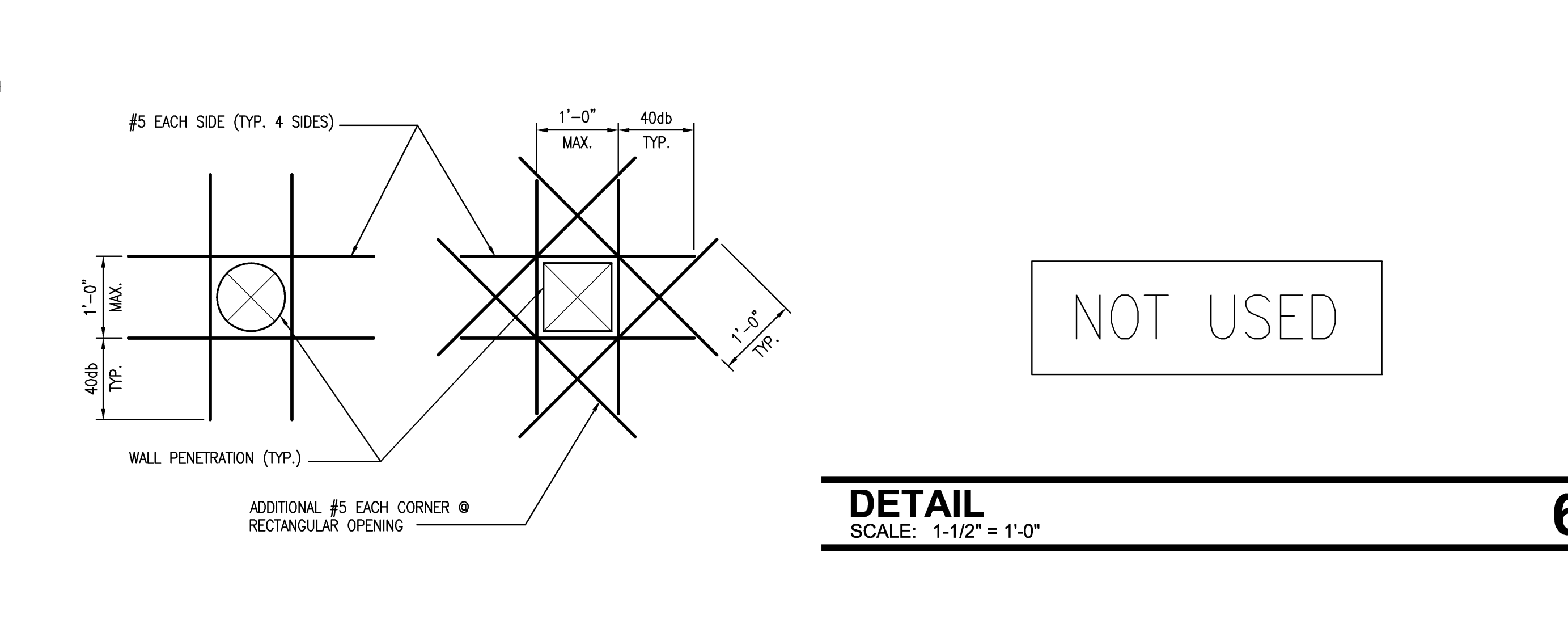
BAR SIZE	f <sub>c</sub> (psi)				HOOK LENGTH (%)
	3000	3500	4000	5000	
#3	6	6	6	6	5
#4	8	8	7	7	6
#5	10	10	9	8	8
#6	12	11	10	9	9
#7	14	13	12	11	11
#8	16	15	14	12	12
#9	18	17	15	14	14
#10	20	19	17	15	16
#11	22	21	19	17	17

λ = 1.0 FOR NORMAL WEIGHT CONCRETE  
λ<sub>s</sub> = β = 1.0 FOR UNCOATED BARS

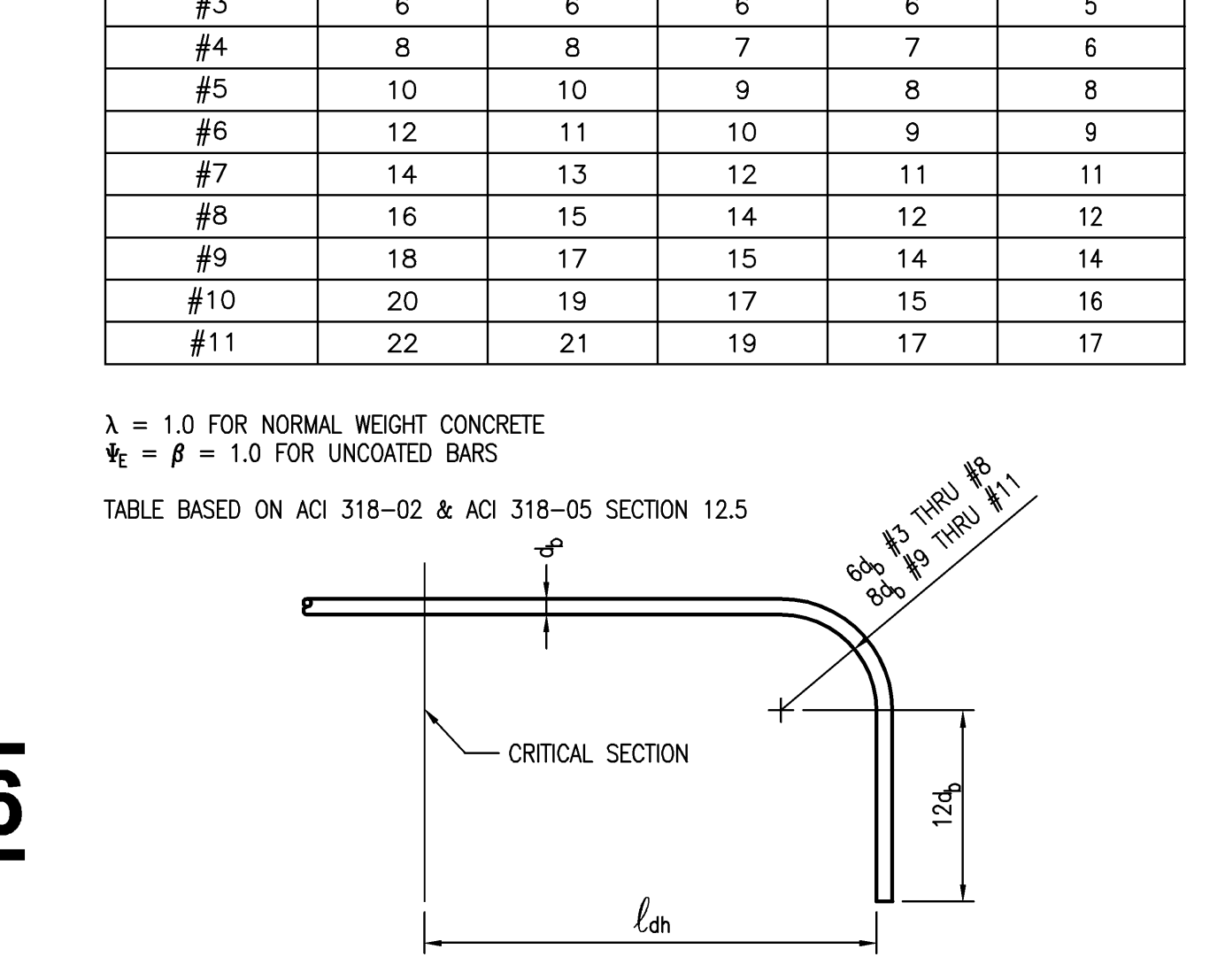
TABLE BASED ON ACI 318-02 & ACI 318-05 SECTION 12.5



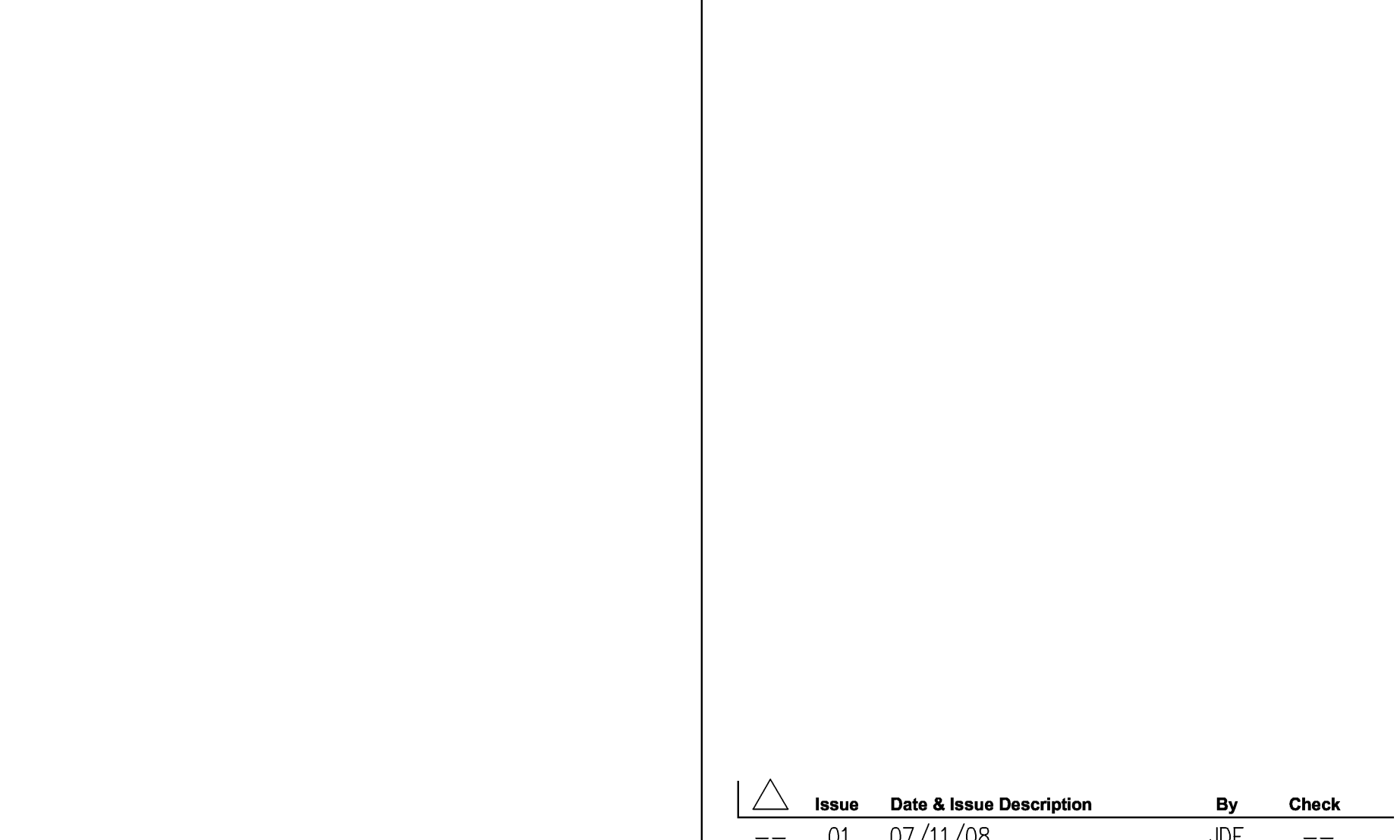
**FLOOR DETAIL**  
SCALE: 1-1/2" = 1'-0" **21**



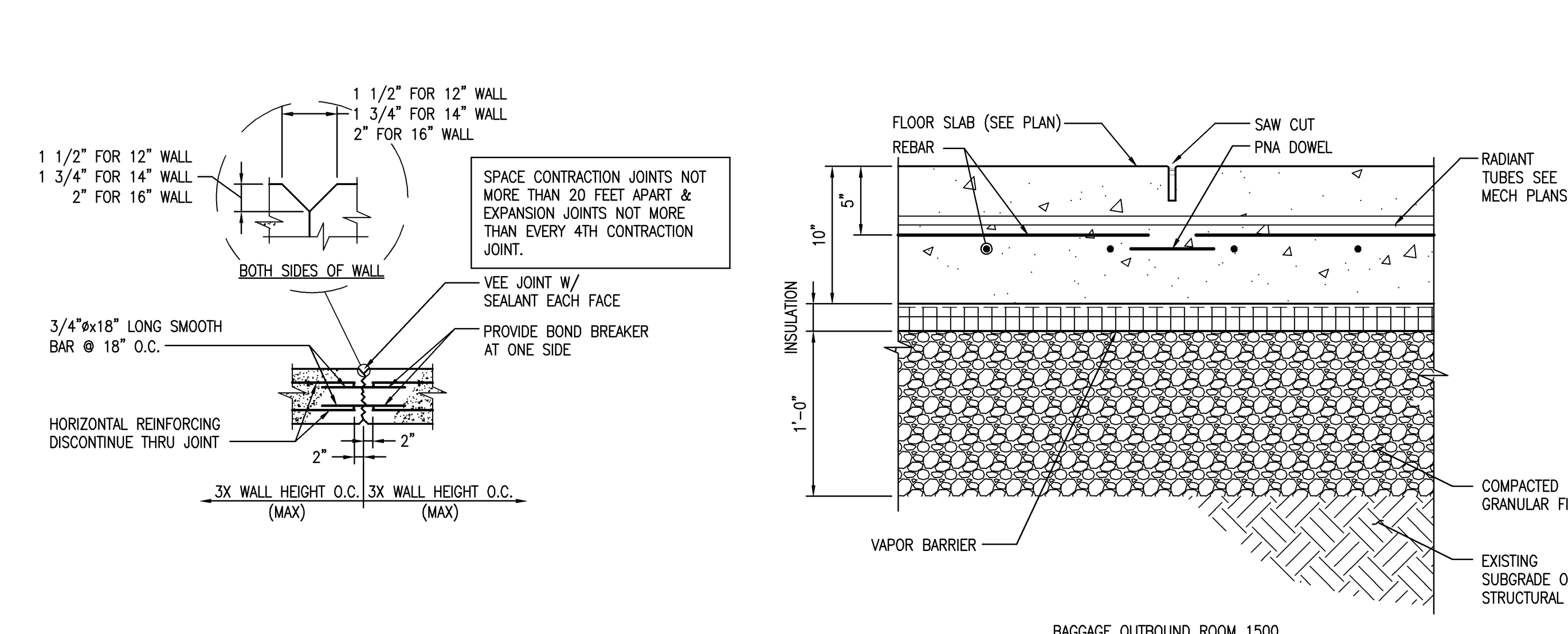
**RE-ENTRANT BAR DETAIL**  
SCALE: 3/4" = 1'-0" **11**



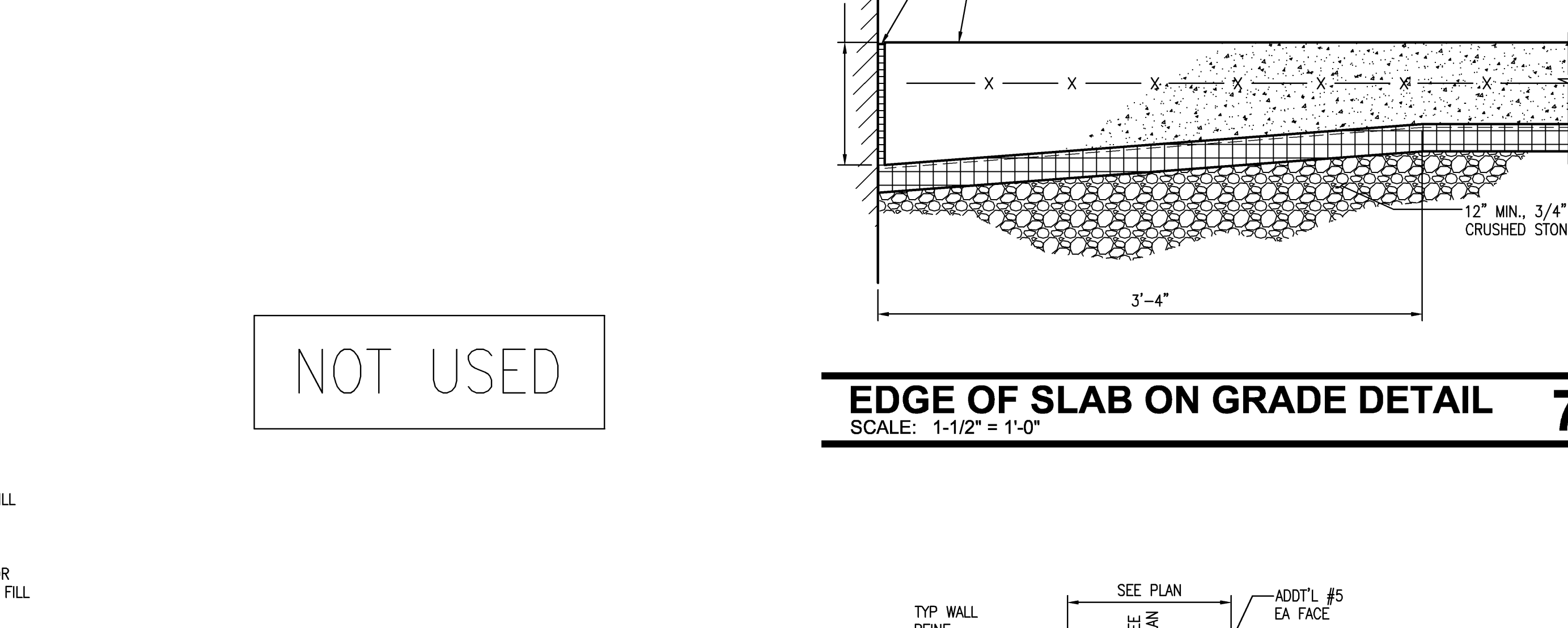
**CONC. PENETRATION REIN. DETAILS**  
SCALE: 3/4" = 1'-0" **12**



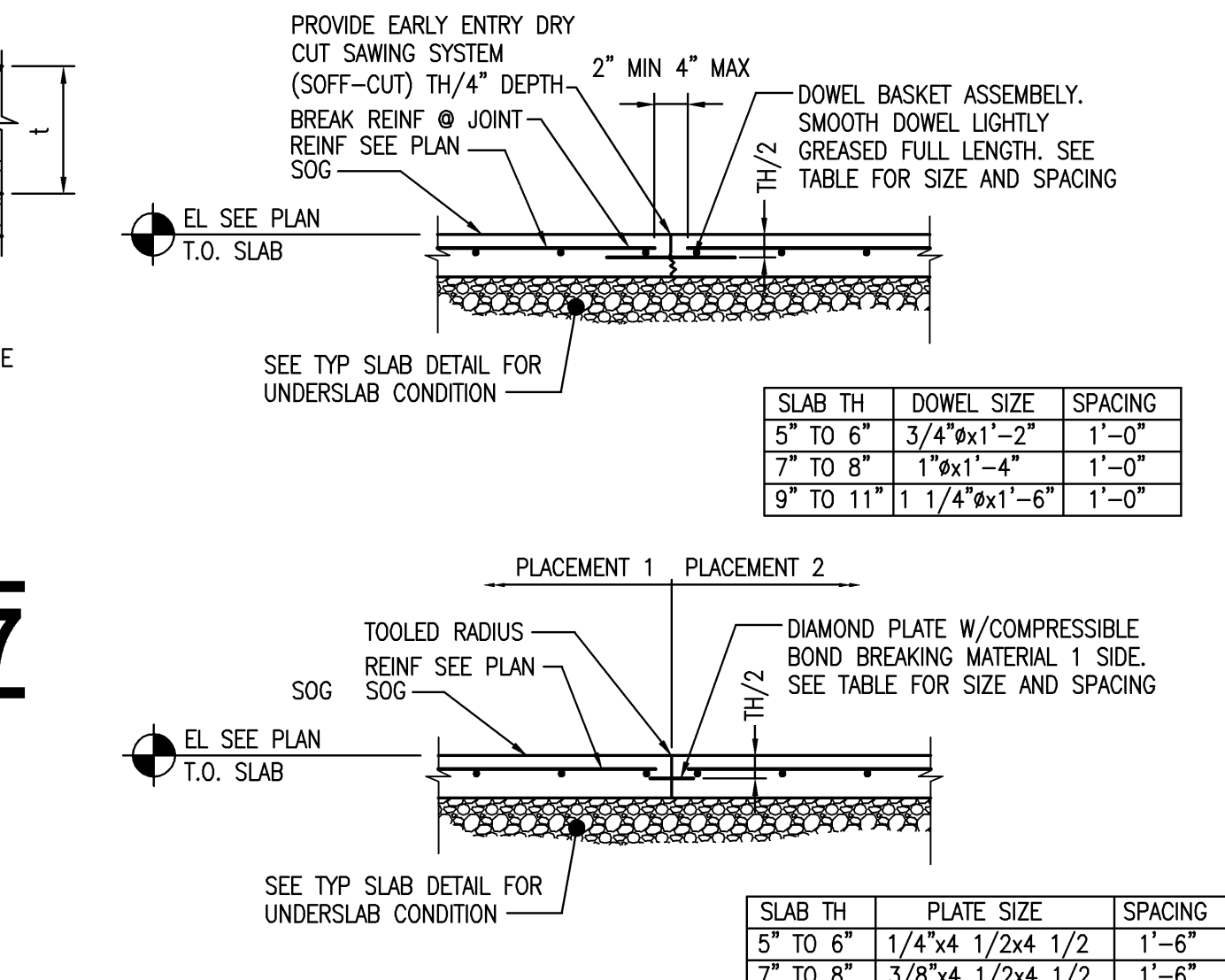
**WALL DEPRESSION DETAIL**  
SCALE: 1/2" = 1'-0" **8**



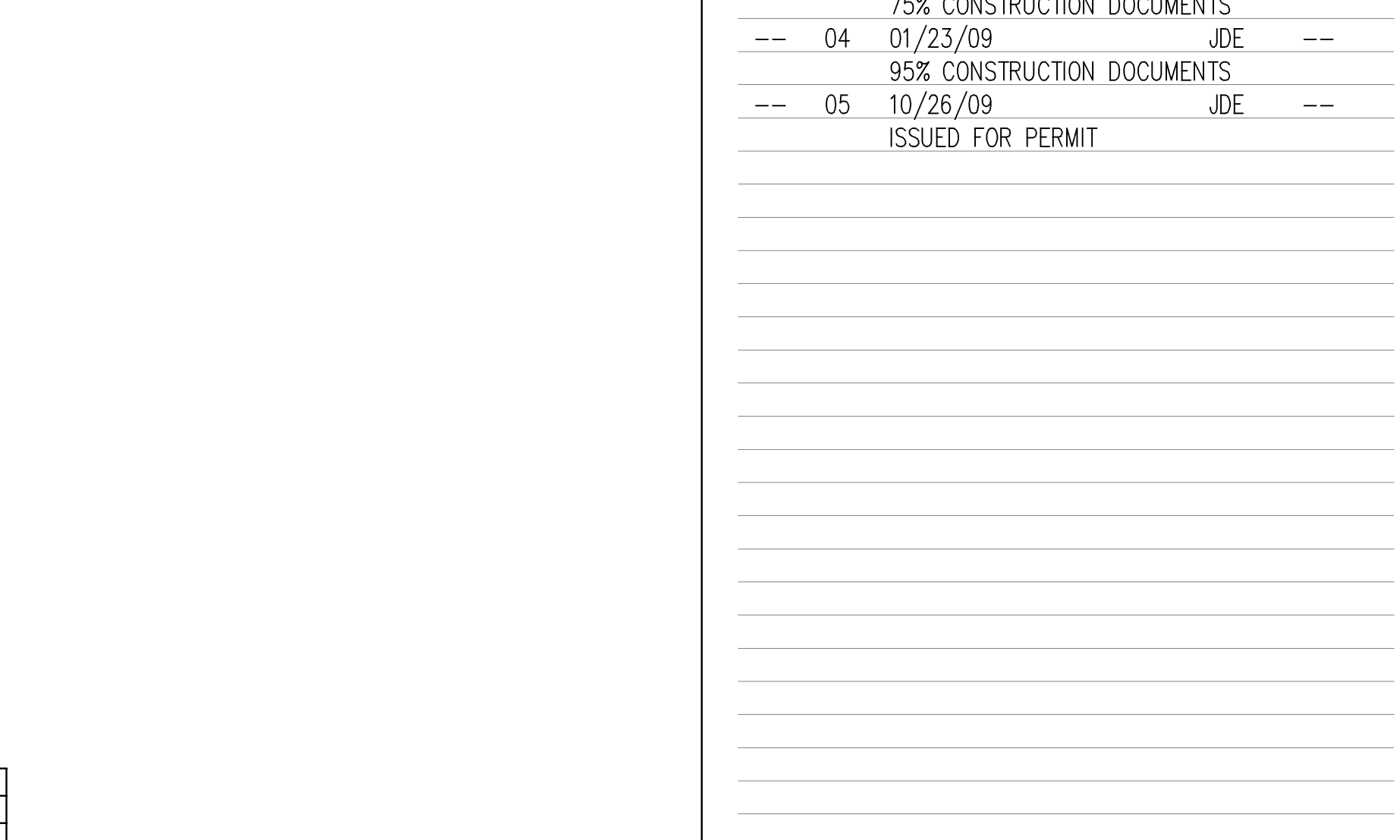
**WALL CONSTRUCTION JOINT DETAIL**  
SCALE: 1/2" = 1'-0" **22**



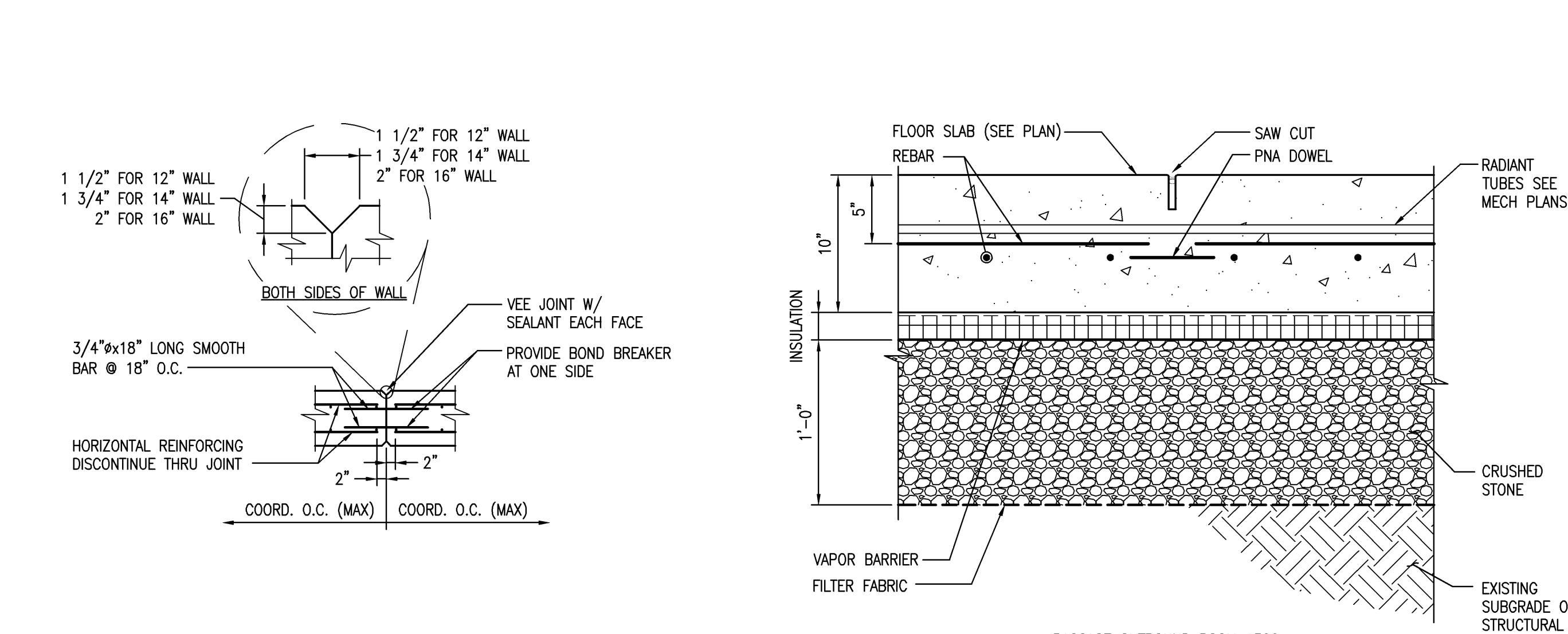
**EDGE OF SLAB ON GRADE DETAIL**  
SCALE: 1-1/2" = 1'-0" **7**



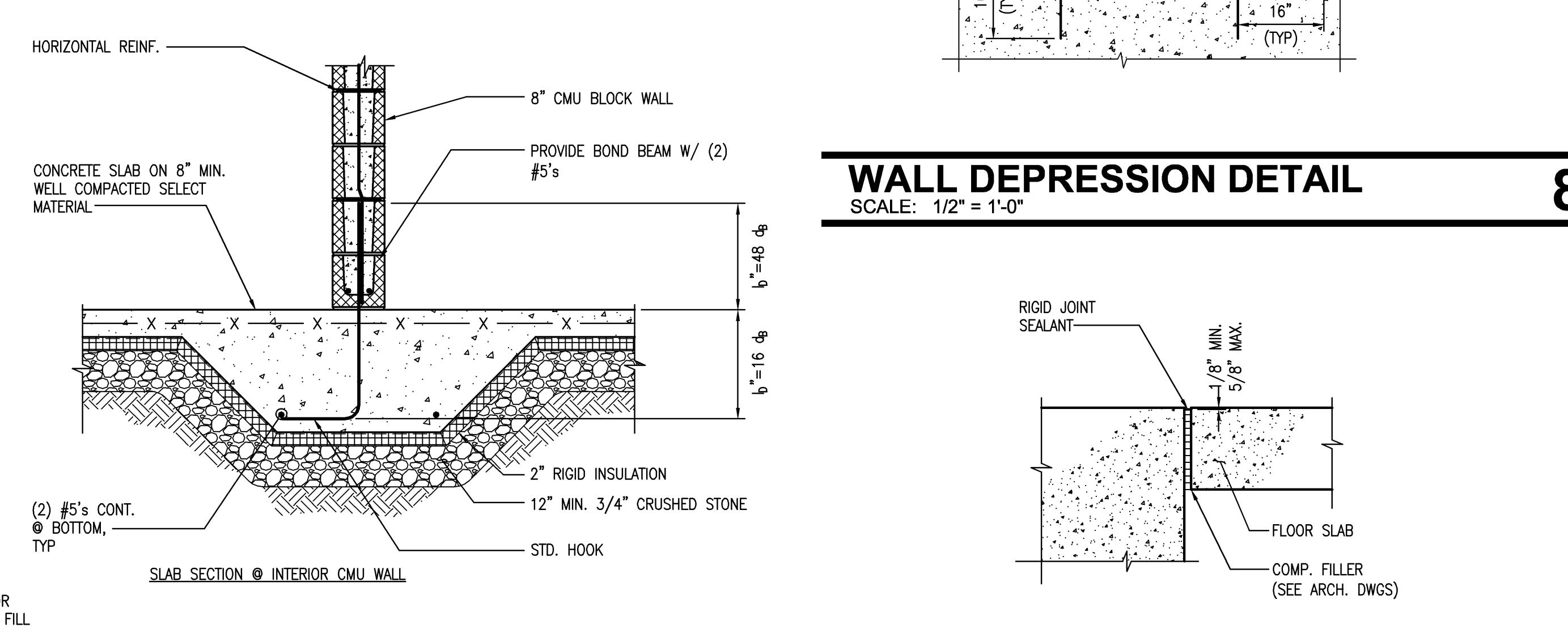
**SLAB CONTRACTION JOINTS**  
SCALE: 1/2" = 1'-0" **2**



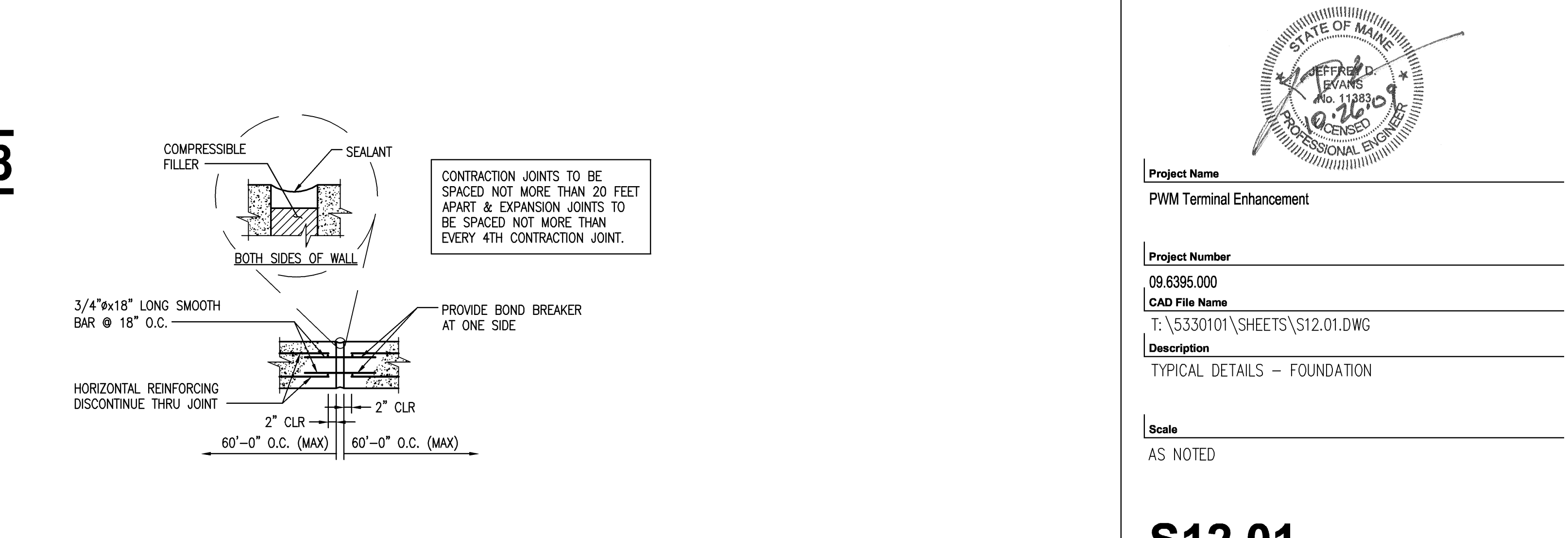
**THICKENED SLAB / CMU DETAIL**  
SCALE: 3/4" = 1'-0" **14**



**WALL CONSTRUCTION JOINT DETAIL**  
SCALE: 1/2" = 1'-0" **23**



**CONCRETE WALL / SLAB JOINT**  
SCALE: 1-1/2" = 1'-0" **9**



**WALL EXPANSION JOINT DETAIL**  
SCALE: 1/2" = 1'-0" **3**

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Issue	Date & Issue Description	By	Check
-- 01	07/11/08	JDE	--
-- 02	09/22/08	JDE	--
-- 03	12/03/08	JDE	--
-- 04	01/23/09	JDE	--
-- 05	10/26/09	JDE	--

Project Name  
PJM Terminal Enhancement

Project Number  
09.8396.000  
CAD File Name  
T:\5330101\SHEETS\S12.01.DWG  
Description  
TYPICAL DETAILS - FOUNDATION

Scale  
AS NOTED

**S12.01**

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