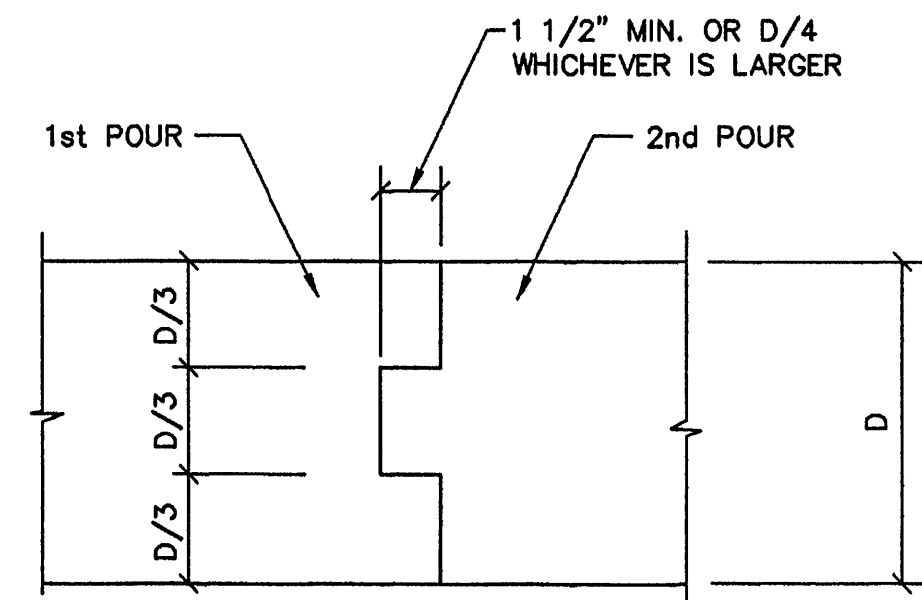
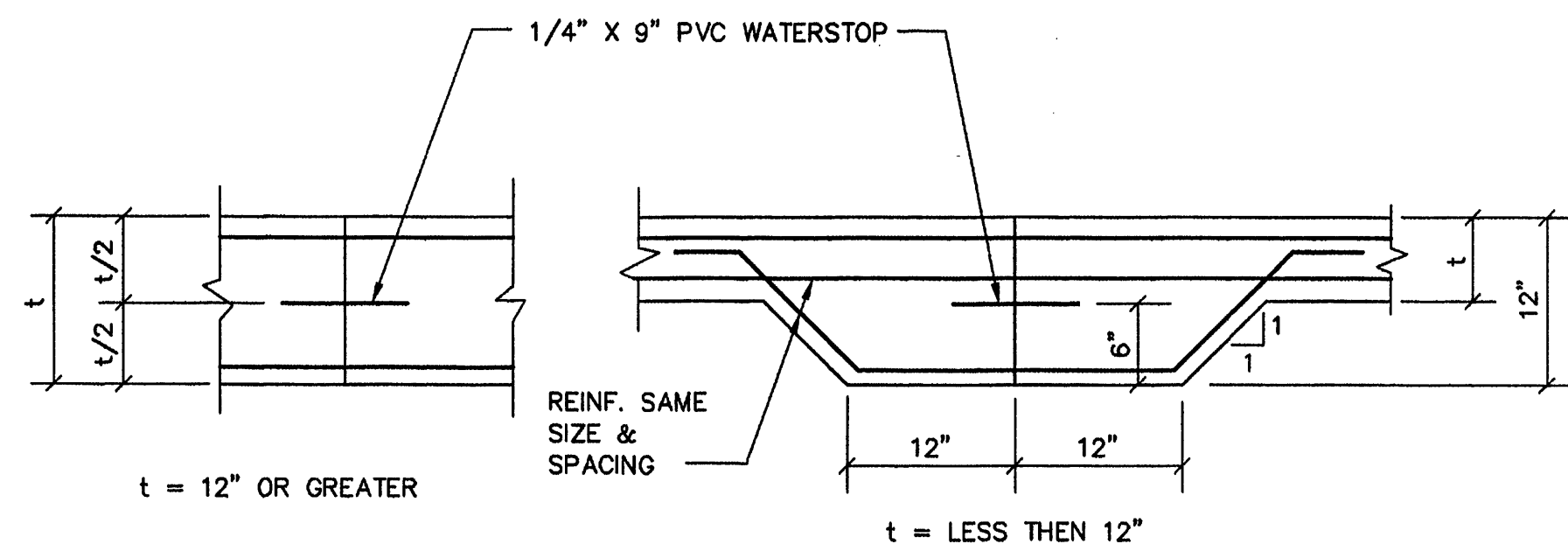




SECTION

TYPICAL BEAM & STRUCTURAL SLAB CONSTRUCTION JOINT DETAIL

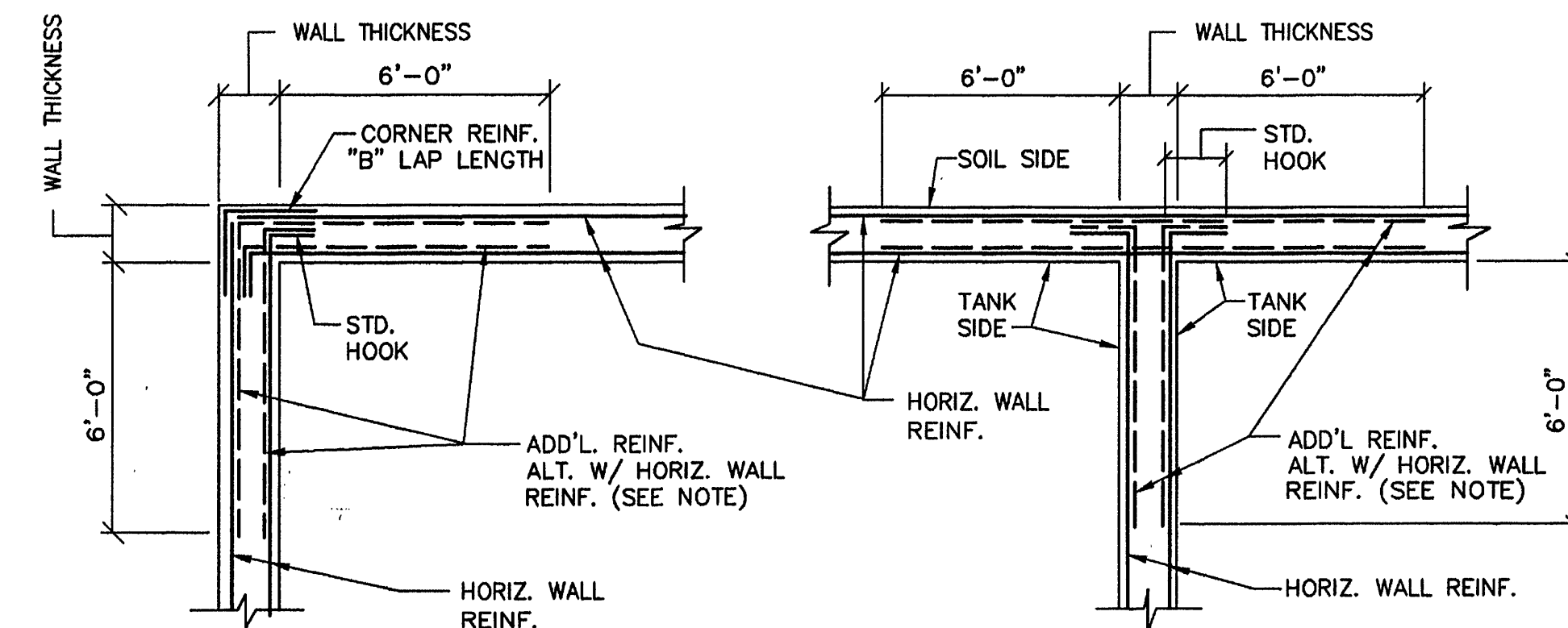
- NOTES:
1. CARRY ALL REINFORCING THROUGH JOINT
 2. CONSTRUCTION JOINTS, WHEN REQUIRED, ARE TO BE LOCATED AT POINTS OF ZERO SHEAR. NO CONSTRUCTION JOINT WILL BE ALLOWED IN ANY BEAM OR SLAB CARRYING CONCENTRATED LOADS.



SLAB ON GRADE
(WITH WATERSTOP)
CJ-4
(WITHOUT WATERSTOP)
CJ-4A

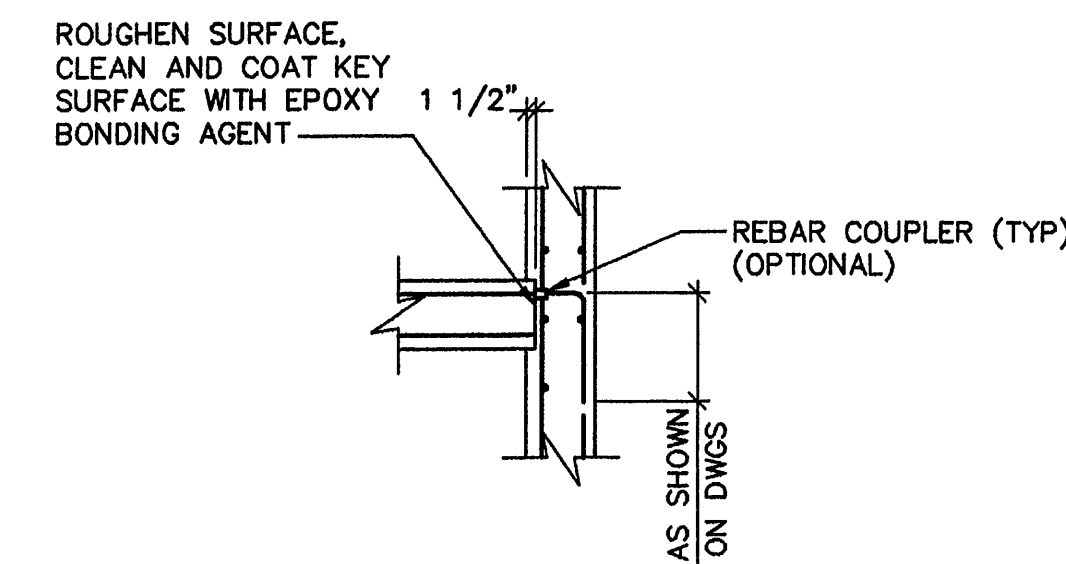
TYPICAL CONSTRUCTION JOINT DETAILS

- NOTES: 1. CONTINUE ALL REINFORCEMENT BARS THRU JOINTS.

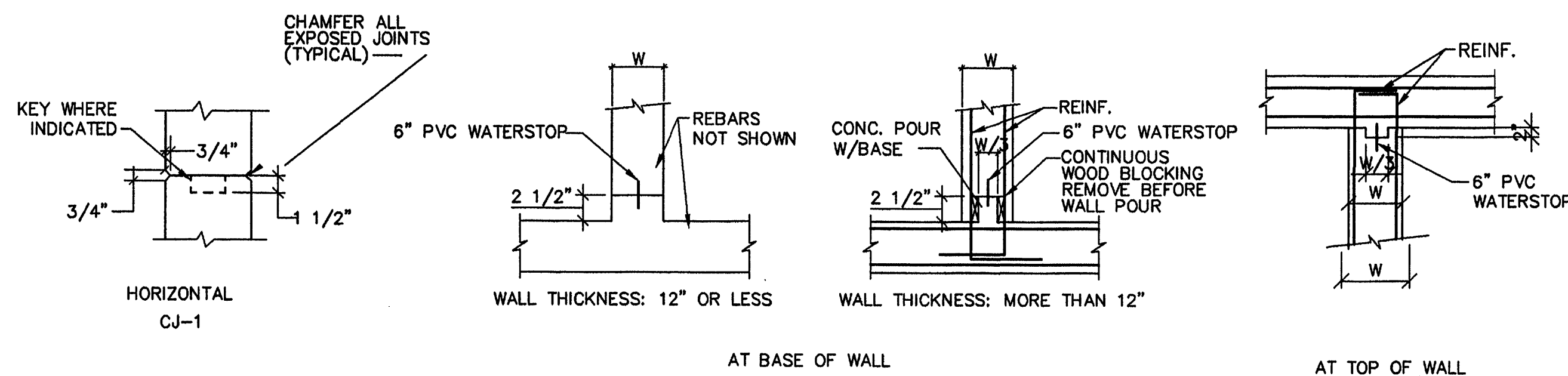


NOTE: ADD'L REINF. SHALL BE #7@12" UNLESS OTHERWISE NOTED

TYPICAL ADDITIONAL REINFORCEMENT DETAIL AT WALL INTERSECTIONS



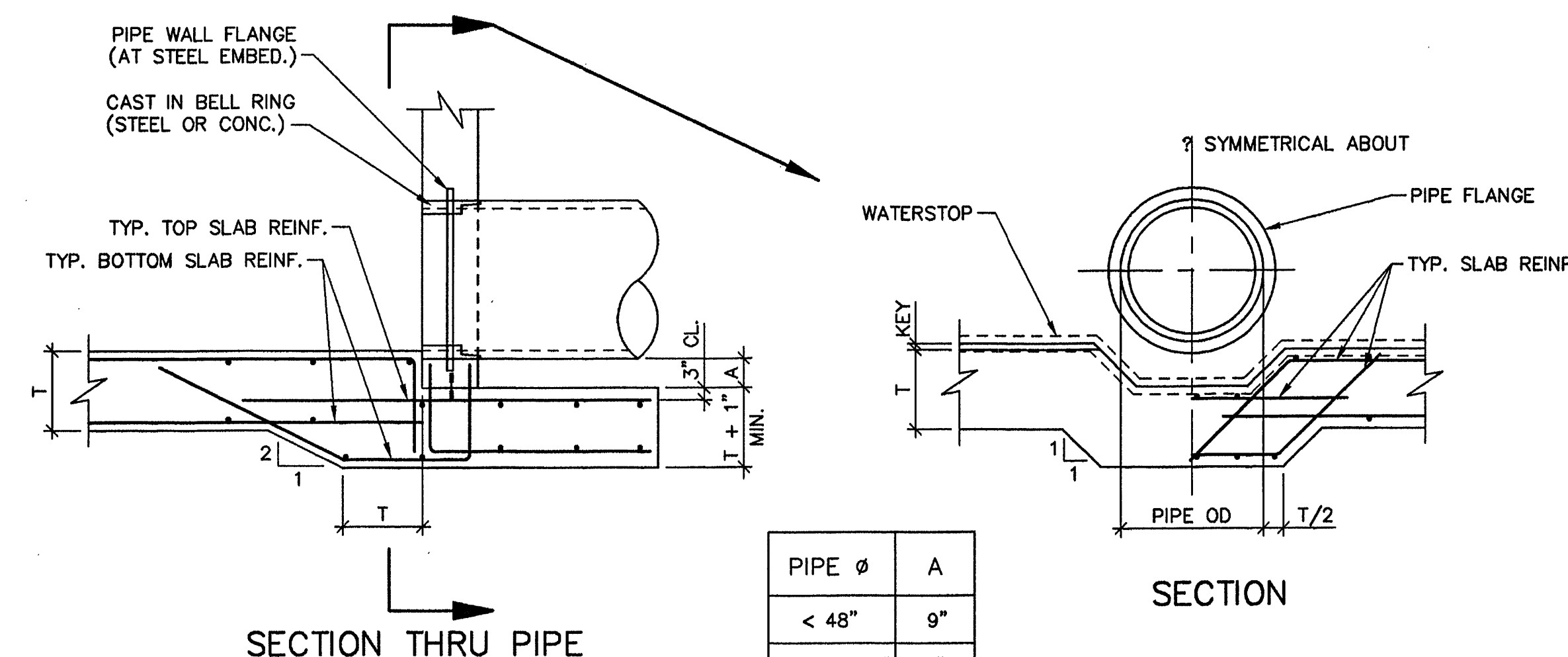
TYPICAL KEYED JOINT



HORIZONTAL CJ-2

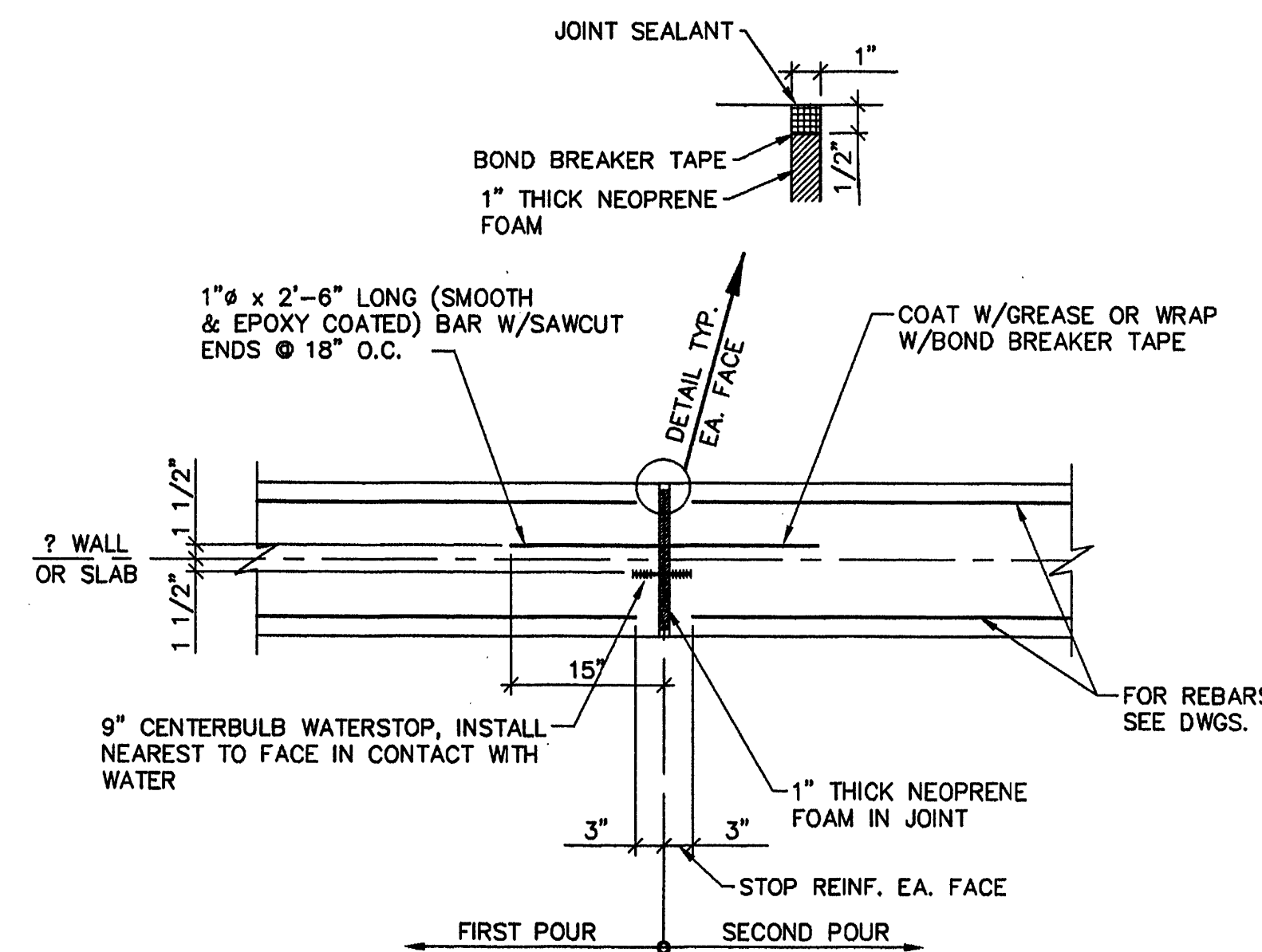
TYPICAL CONSTRUCTION JOINT DETAILS

- NOTES: 1. CONTINUE ALL REINFORCEMENT BARS THRU JOINTS.
2. ALL WALL VERTICAL CONSTRUCTION JOINTS TO BE CJ-3 U.O.N.

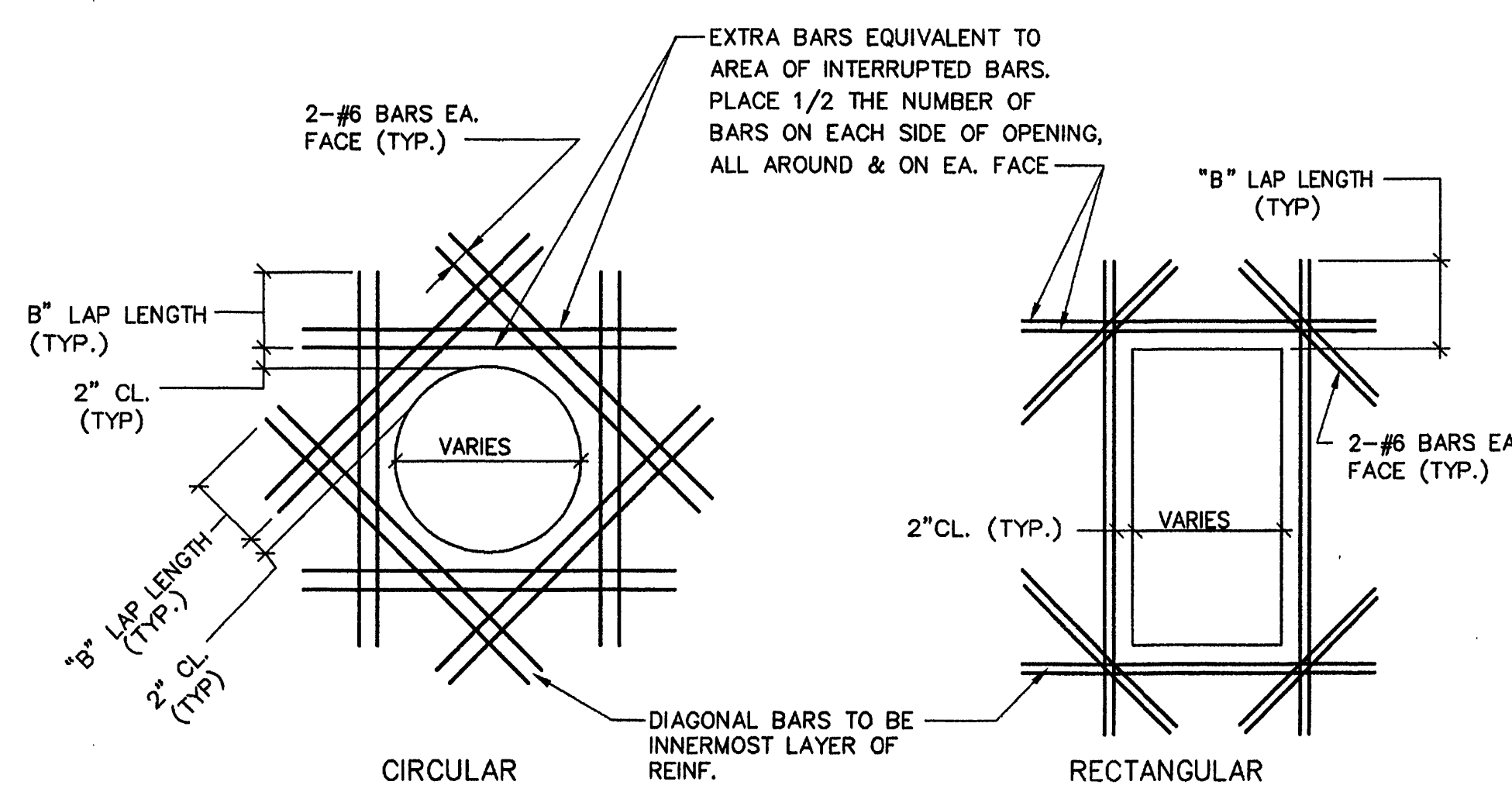


PIPE Ø	A
< 48"	9"
48" TO 72"	12"
> 72"	18"

TYPICAL PIPE CONNECTION AT FOOTING



TYPICAL EXPANSION JOINT DETAIL
FOR WALL OR SLAB



TYPICAL OPENING REINFORCING DETAILS

4445 006002505 I:\CAD\PROJ\006002505\00603368 Scale: 1:1 Date: 05/01/1997 Time: 11:08

**MALCOLM
PIRNIE**
11832 Rock Landing Drive, Suite 400
Newport News, Virginia 23606

REVISIONS				REMARKS
NO.	BY	DATE	DESCRIPTION	
2	ARB	JAN. 2000	RECORD DRAWING	

DES --- MZ ---
DWN --- DRK ---
CKD --- DB ---



CITY OF ROANOKE, VIRGINIA
WATER POLLUTION
CONTROL PLANT
UPGRADE AND EXPANSION

TYPICAL DETAILS
SHEET 3
NOT TO SCALE

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DATE --- MAY 1997 ---
S SHEET 44 OF 44 ---
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