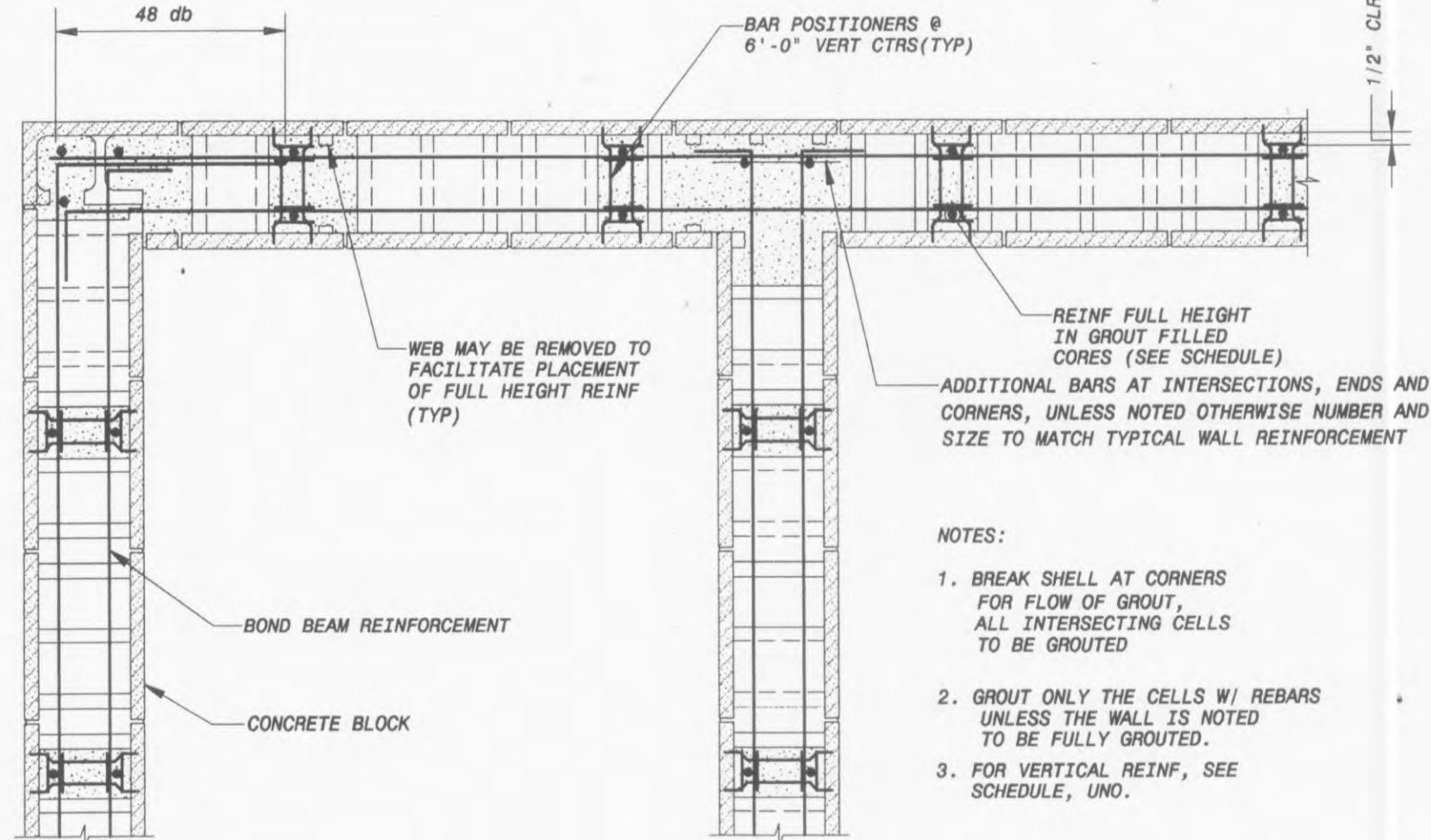


TYPICAL REINFORCING WITH CORNER CONTROL JOINTS

SINGLE CURTAIN REINFORCEMENT SHOWN. DOUBLE CURTAIN SIMILAR WITH 1/2" CLEAR FROM EACH WALL FACE.

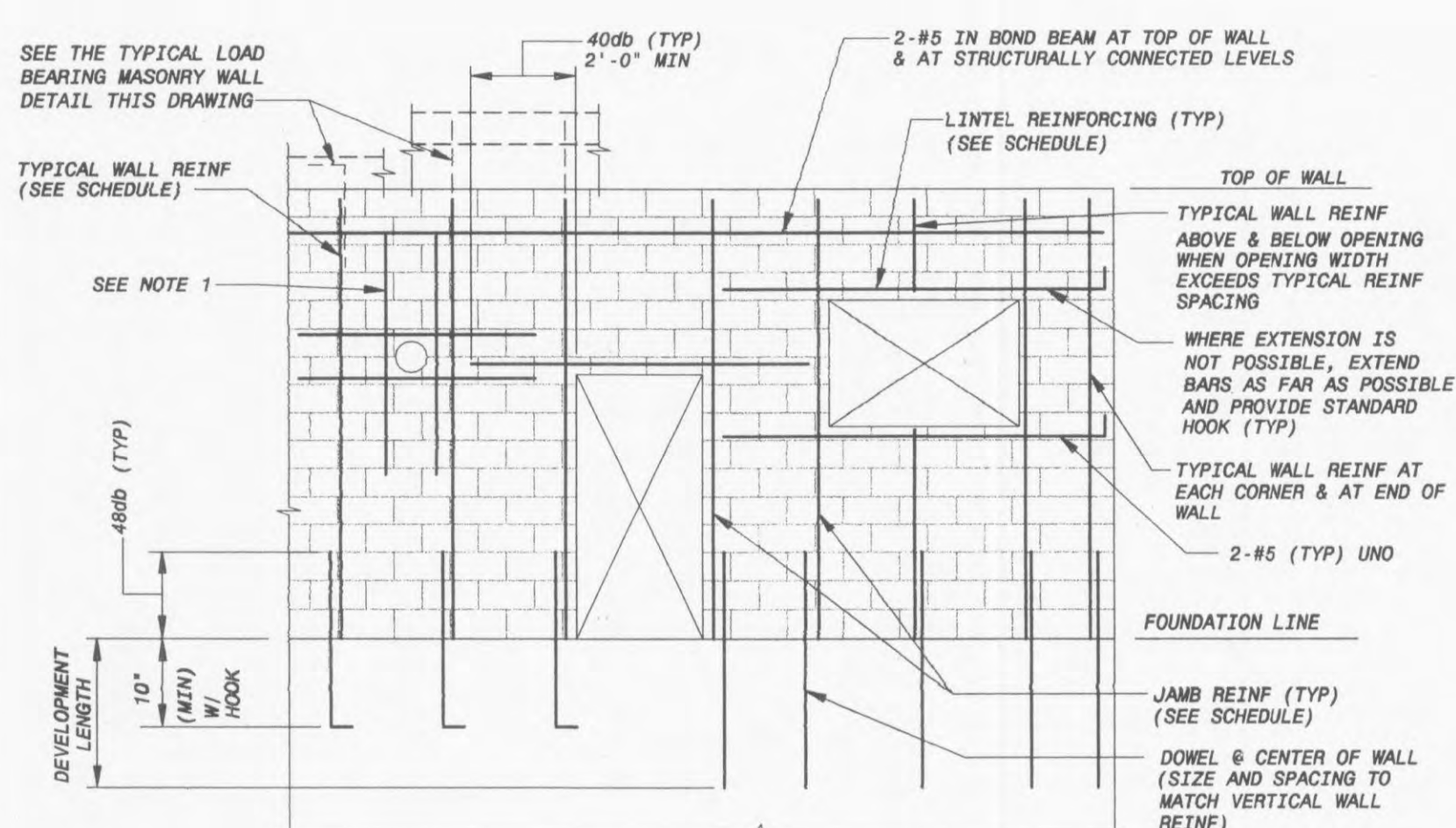


TYPICAL REINFORCING WITHOUT CORNER CONTROL JOINTS

DOUBLE CURTAIN REINFORCEMENT SHOWN. SINGLE CURTAIN SIMILAR EXCEPT CENTERED IN WALL.

TYPICAL MASONRY REINFORCING PLANS

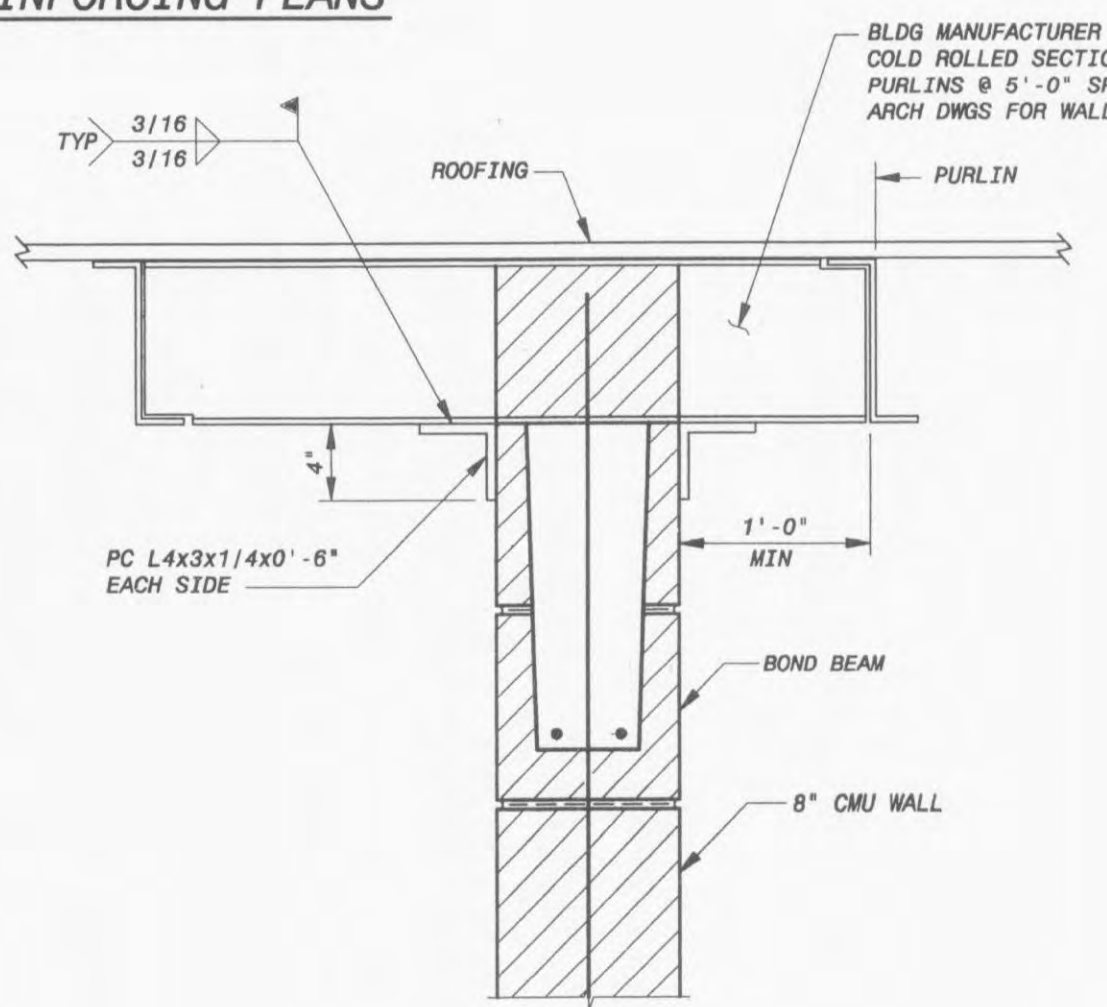
3/4" = 1'-0"



- NOTE:
1. EXTEND JAMB BARS FLOOR TO ROOF WHERE OPENING WIDTH EXCEEDS 1'-4", OTHERWISE, EXTEND 40 BAR DIAMETERS OR 2'-0" MIN PAST OPENINGS.

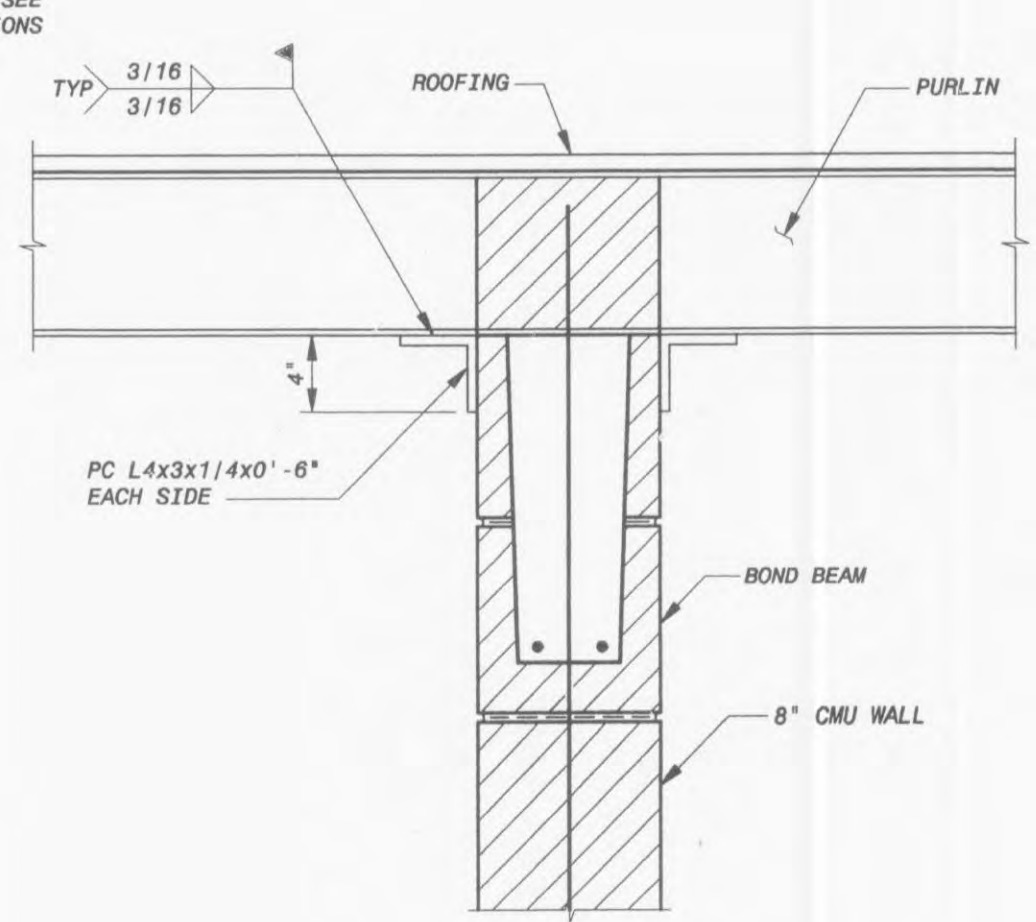
TYPICAL MASONRY REINFORCING ELEVATION

NO SCALE



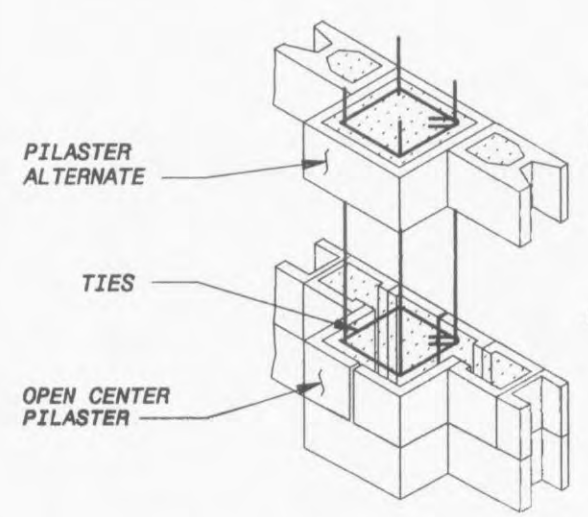
TOP MASONRY WALL SUPPORT PARALLEL TO PURLINS

NO SCALE



TOP MASONRY WALL SUPPORT PERPENDICULAR TO PURLINS

NO SCALE

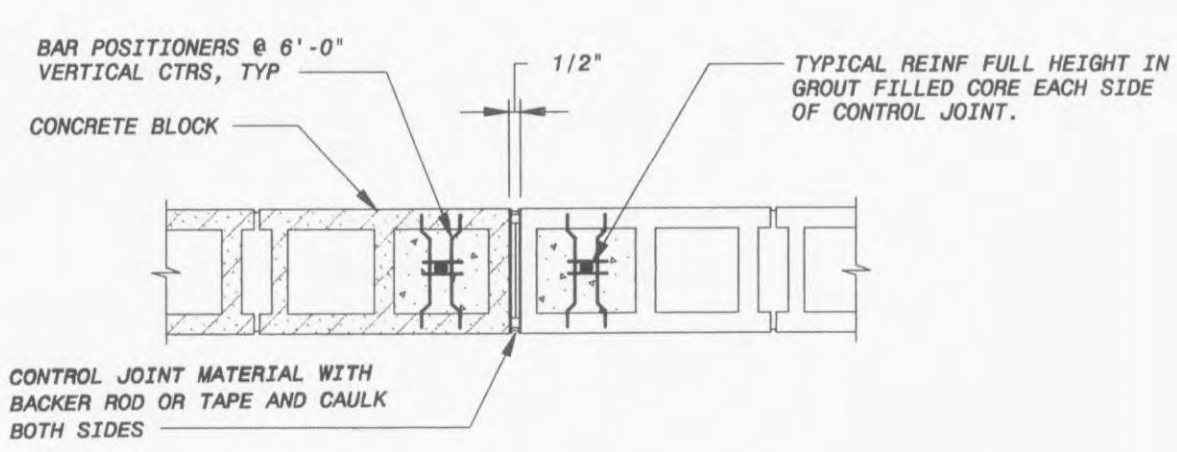


TYPICAL OPEN CENTER PILASTER

PILASTER SCHEDULE				
TYPE	NOM SIZE	VERT REIN	TIES	REMARKS
P1				
P2				
P3				

TYPICAL CONCRETE MASONRY PILASTERS

NO SCALE



- NOTES:
1. LADDER TYPE REINFORCEMENT IS DISCONTINUOUS AT JOINT. 50% OF BOND BEAM REINFORCEMENT IS DISCONTINUOUS AT JOINT. AT BOND BEAMS ON TOPS OF WALLS 100% OF REINFORCING IS TO CONTINUE THROUGH THE CONTROL JOINT.
 2. CONTROL JOINT IS CONTINUOUS FULL WALL HEIGHT.
 3. PLACE CONCRETE MASONRY CONTROL JOINTS AT ABOUT 35'-0" CENTERS AND WITHIN 16'-0" OF CORNERS UNLESS OTHERWISE NOTED. PLACE CONTROL JOINTS AT LEAST ONE HALF THE OPENING WIDTH AWAY FROM OPENINGS.
 4. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF VENEER CONTROL JOINTS.

TYPICAL CONCRETE MASONRY CONTROL JOINT

NO SCALE

MINIMUM CMU WALL REINFORCING SCHEDULE (NOTE 5)					
(SPECIAL INSPECTION REQUIRED)					
WALL SIZE	WALL HEIGHT	VERTICAL REINFORCEMENT		HORIZONTAL REINFORCEMENT	
		EXTERIOR WALL	INTERIOR WALL	EXTERIOR WALL	INTERIOR WALL
12"	<=16'-0"	#5@48	#5@48	LADDER TYPE JOINT REINFORCEMENT @ 16" CTRS	LADDER TYPE JOINT REINFORCEMENT @ 16" CTRS
	<=20'-0"	#6@48	#5@48		
	<=22'-0"	#5@48 EF	#5@48		
	<=24'-0"	#5@32 EF	#5@48		
8"	<=13'-0"	#5@48	#5@48	LADDER TYPE JOINT REINFORCEMENT @ 16" CTRS	LADDER TYPE JOINT REINFORCEMENT @ 16" CTRS
	<=16'-0"	#5@32	#5@32		
	<=18'-0"	#5@32 EF	#5@32		
	<=24'-0"	#6@32 EF	#5@32		

- NOTES:
1. WALL HEIGHT IS DISTANCE FROM BOTTOM OF MASONRY WALL TO THE LOCATION OF TOP LATERAL SUPPORT.
 2. WHERE BARS ARE CALLED OUT EACH FACE (EF), BARS SHALL BE PLACED, IN A DOUBLE CURTAIN WITH ONE BAR TOWARD EACH FACE OF THE WALL. OTHERWISE BARS SHALL BE CENTERED IN THE WALL.
 3. AN INTERIOR WALL IS A WALL IN WHICH NO PORTION OF THE WALL IS EXPOSED TO THE EXTERIOR.
 4. AT LOCATIONS WHERE WALLS CANTILEVER ABOVE THE TOP LATERAL SUPPORT, THE WALL HEIGHT FOR THE ABOVE SCHEDULE SHALL BE THE GREATER OF THE HEIGHT IN NOTE 1 OR DOUBLE THE DISTANCE FROM LATERAL SUPPORT TO THE TOP OF THE WALL.
 5. IN ADDITION TO THE SCHEDULED REINFORCEMENT, WALLS SHALL HAVE A CONTINUOUS BOND BEAM WITH AT LEAST 2-#5 BARS AT OR NEAR THE TOP COURSE, SCHEDULED REINFORCEMENT AT OPENINGS, AND ALL OTHER HORIZONTAL AND VERTICAL REINFORCEMENT AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS.
 6. SEE THE STRUCTURAL DRAWINGS FOR SPECIAL REINFORCEMENT AND BOUNDARY ELEMENTS IN HIGH STRESS SHEAR WALLS. ALL WALLS SHALL BE REINFORCED WITH THE MINIMUMS ABOVE.

MINIMUM CMU WALL REINFORCING SCHEDULE

NO SCALE

GENERAL NOTES

1. THE DETAILS ON THIS SHEET ARE APPLICABLE TO ALL CONCRETE MASONRY CONSTRUCTION. SPECIAL NOTES, SECTIONS AND DETAILS SPECIFICALLY NOTED ON THE DESIGN DRAWINGS SHALL BE APPLICABLE IN LIEU OF THESE TYPICAL DETAILS, EXCEPT THAT REINFORCEMENT SHALL NOT BE LESS THAN THE TYPICAL REINFORCEMENT REQUIRED.
2. FOR MISCELLANEOUS APPURTENANCES INCLUDING EMBEDMENTS, BRACING, STEEL OR PRECAST LINTELS, VENEER, FLASHING, WEEPS, INSULATION, SEALING, CAULKING AND EMBEDDED PIPE AND ELECTRICAL CONDUIT, SEE THE DESIGN DRAWINGS.
3. MASONRY SHALL BE CONSTRUCTED WITH SLEEVES AS REQUIRED TO ACCOMMODATE PASSAGE OF PENETRATING PIPING, CONDUIT AND DUCT BANKS INDICATED ON THE CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS.
4. db DENOTES REINFORCING BAR DIAMETER. UNO DENOTES "UNLESS NOTED OTHERWISE".
5. SPECIAL INSPECTION IS REQUIRED FOR ALL MASONRY.
6. WORK THIS DRAWING WITH THE STANDARD MASONRY LINTEL & JAMB REINFORCING DRAWING.

NO. BY	CK	APP
2	1	
CONFORMED TO CONSTRUCTION RECORDS		
ADDENDUM		
DATE	REVISIONS AND RECORD OF ISSUE	XREF1 ID:
		XREF2 ID:
		XREF3 ID:
		XREF4 ID:
		XREF5 ID:
		SW: AOAD-20001
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		SAVED: BOWH4813, 3/25/2003 3:10:58 PM
		DWG VER #1: 7.0
		PLOTTED: 1/14/2004 10:20:25 AM
		USER: BOWH4813

THIS DRAWING WAS ORIGINALLY APPROVED FOR CONSTRUCTION BY WILLIAM F. HODGSON BY WILLIAM F. BITLEY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MISSOURI, NO. E-20756*

BLACK & VEATCH Corporation
St. Louis, Missouri

CITY OF O'FALLON, MISSOURI
WATER TREATMENT PLANT
STRUCTURAL CONCRETE MASONRY REINFORCING DETAILS

DESIGNED:	WFR
DETAILED:	LWF
CHECKED:	MER
APPROVED:	WFR
DATE:	OCT 8, 2001

PROJECT NO.
97515

I3
SHEET
41 OF 96