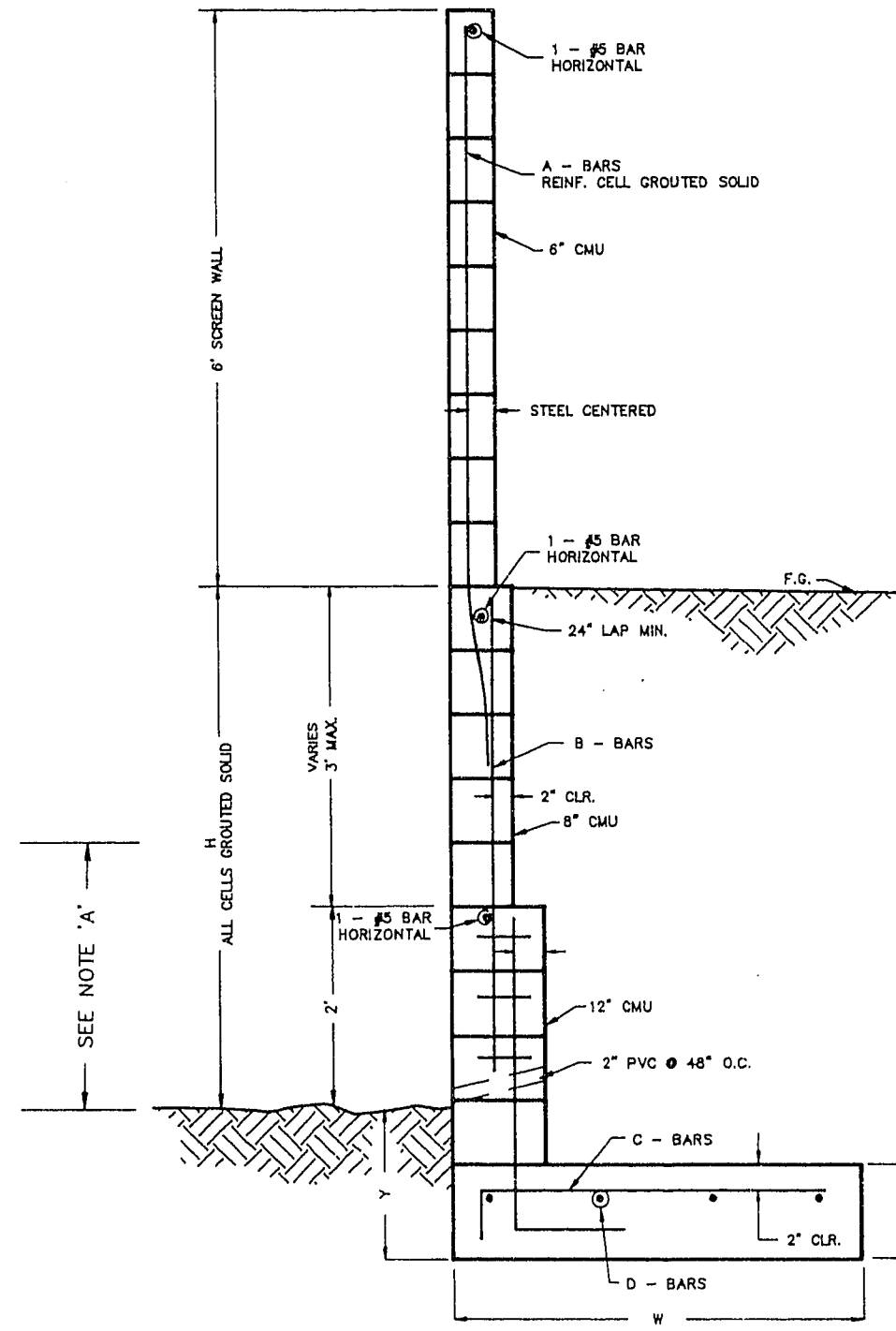


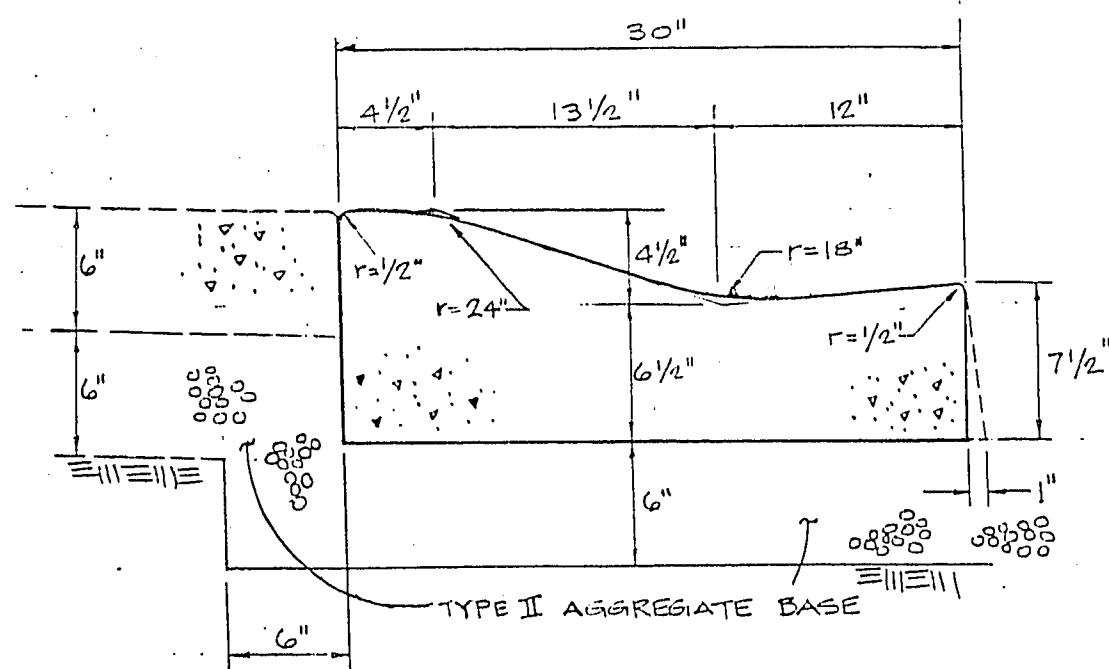
HEIGHT	NOTES
0 to 2.67'	SOLID GROUT RETAINING WALL AS SHOWN PLUS SOLID GROUT SCREEN WALL TO ACHIEVE 32" FULL HEIGHT FLOOD WALL PROTECTION.
2.67 to 5'	SOLID GROUT RETAINING WALL AS SHOWN IN DETAIL 'C'.



H	A-VERT.	B-VERT.	C-TRANS.	D-HORIZ.	W	Y
1'-0" TO 3'-0"	#5 @ 48"	#5 @ 24"	#5 @ 18"	3 - #5	3'-0"	18" MIN.
3'-0" TO 5'-0"	#5 @ 48"	#5 @ 24"	#5 @ 18"	4 - #5	4'-0"	18" MIN.

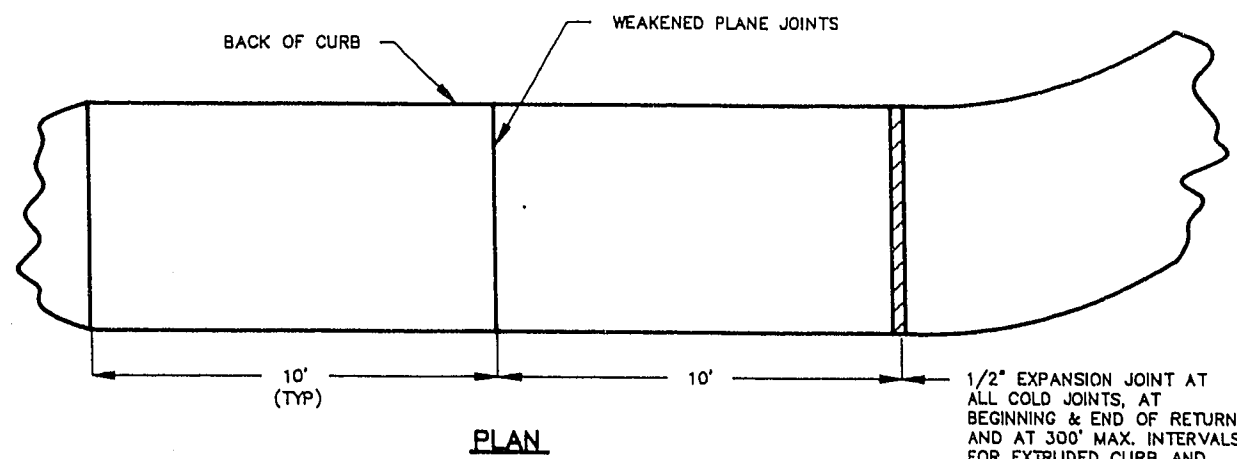
BLOCK WALL WITH RETAINING WALL 5' MAX.

NOT TO SCALE



TYPICAL SECTION

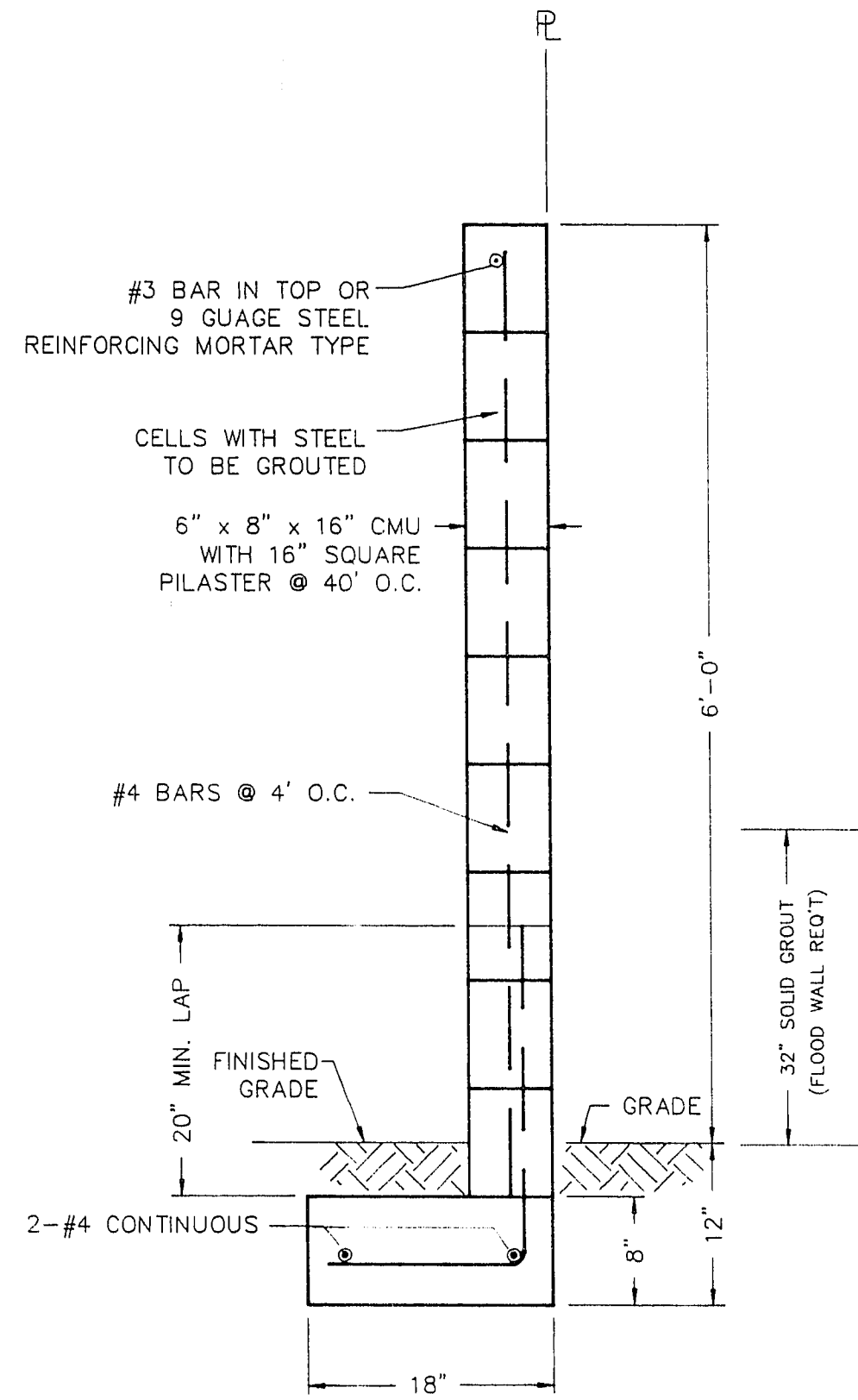
ROLL TYPE CURB AND GUTTER
RESIDENTIAL AREA



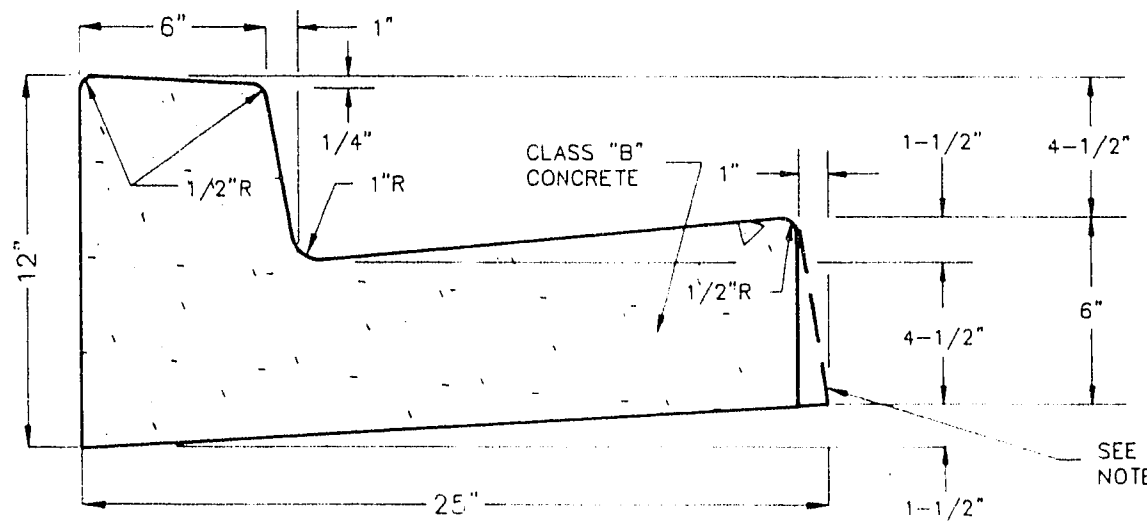
PLAN

NOTES:

- USE OF THIS TYPE OF CURB MAY BE LIMITED BY SURFACE DRAINAGE CONSIDERATIONS.
- ROLL TYPE CURB AND GUTTER MAY NOT BE USED ADJACENT TO SIDEWALKS.
- 1" BATTER ON GUTTER FACE OPTIONAL.
- WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4%, THE FLOW LINE SHALL BE WATER TESTED

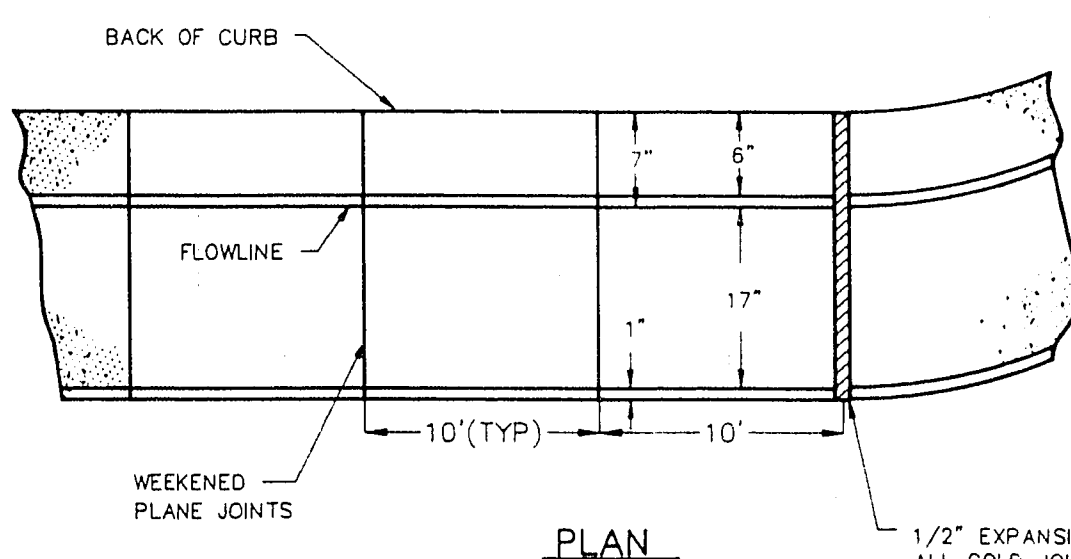


D BLOCK WALL
NOT TO SCALE



TYPICAL SECTION

"L" TYPE
CURB AND GUTTER



PLAN

NOTES:

- 1" BATTER ON GUTTER FACE OPTIONAL.
- WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4% THE FLOW LINE SHALL BE WATER TESTED.

CONCRETE BLOCK MASONRY:

- CONCRETE BLOCK SHALL BE HOLLOW LEAD BEARING CONCRETE MASONRY UNIT CONFORMING TO ASTM C90-70. USE BOND BEAM UNITS AT HORIZONTAL REINFORCING.
- CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
- REINFORCING BARS - SEE GENERAL NOTES FOR "REINFORCING STEEL".
- MORTAR MIX SHALL CONFORM TO REQUIREMENTS FOR U.B.C. TABLE 24-A, TYPE S, AND PROJECT SPECIFICATIONS. MORTAR SHALL ATTAIN A COMPRESSIVE STRENGTH OF 1800 P.S.I. AT 28 DAYS.
- GROUT SHALL CONFORM TO SECTION 2403 OF THE U.B.C. FOR COARSE GROUT. COARSE GROUT SHALL HAVE A MINIMUM OF 1 PART PEA GRAVEL FOR ESSENTIAL BUILDINGS. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. GROUT SHALL ATTAIN A COMPRESSIVE STRENGTH OF 2000 P.S.I. AT 28 DAYS.
- PROVIDE A MINIMUM OF 1/2 INCH GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
- LOW LIFT CONSTRUCTION, MAXIMUM GROUT POUR HEIGHT IS 4 FT.
- ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING STEEL SHALL BE FILLED SOLID WITH GROUT.
- CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.
- REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.

CONCRETE:

- ALL PHASES OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-83)" WITH MODIFICATIONS AS NOTED IN THE DRAWINGS OR SPECIFICATIONS.
- REINFORCED CONCRETE DESIGN IS BY THE "ULTIMATE STRENGTH METHOD".
- CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER.
- ALL CAST-IN-PLACE CONCRETE SHALL BE HARD ROCK WITH A SPECIFIED COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS. DESIGN BASED ON 2000 P.S.I. CONTINUOUS INSPECTION NOT REQUIRED.
- PORTLAND CEMENT SHALL CONFORM TO ASTM C-150.
- AGGREGATE FOR HARD ROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C-33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
- DRY PACK UNDER BASEPLATES, SILL PLATES, ETC., SEE SPECIFICATIONS.
- CONCRETE MIXING OPERATIONS, ETC., SHALL CONFORM TO ASTM C-94.
- PLACEMENT OF CONCRETE SHALL CONFORM TO ACI STANDARDS 614 AND PROJECT SPECIFICATIONS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
- CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOWS:
CONCRETE POURED DIRECTLY AGAINST EARTH: 3" CLEAR.
FORMED CONCRETE WITH EARTH BACKFILL: 2" CLEAR.
BEAMS AND COLUMNS: 2" CLEAR U.N.O.
STRUCTURAL SLABS: 1" CLEAR.
- ALL REINFORCING BARS, ANCHOR BOLTS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT REINFORCING WHICH MAY INTERFERE. CORING IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER OF CONDITIONS NOT SHOWN ON DRAWINGS.
- CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED 30 PERCENT OF SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED.

FOUNDATIONS:

- FOOTINGS ARE DESIGNED BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 P.S.F.
- CONTRACTOR SHALL PROVIDE FOR PROPER DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPAGE, ETC.
- CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS.
- EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE FOUNDATION ENGINEER PRIOR TO PLACING CONCRETE AND REINFORCING. CONTRACTOR TO NOTIFY FOUNDATION ENGINEER WHEN EXCAVATION IS READY FOR INSPECTION. FOUNDATION ENGINEER TO SUBMIT LETTER OF COMPLIANCE TO THE OWNER.
- ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS, AND INSTALLATION OF SUCH BRACING.
- FOOTINGS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE FOUNDATION ENGINEER, FOOTING ELEVATIONS OR FOOTING DESIGN WILL BE ALTERED BY CHANGE ORDER.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE FOUNDATIONS ENGINEER. FLOODING WILL NOT BE PERMITTED.
- ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

REINFORCING STEEL FOR CONCRETE AND MASONRY:

- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-83)" AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION," LATEST EDITION, BY THE C.R.S.I. AND THE W.C.M.S.I. AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.
- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS FOR ASTM A-615 GRADE 60.
- WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH "RECOMMENDED PRACTICE FOR WELDING REINFORCING STEEL," AMERICAN WELDING SOCIETY SPECIFICATION AWS D12.1.
- ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A105.
- MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6 INCHES OR ONE FULL MESH AND ON HALF, WHICHEVER IS GREATER.
- REINFORCING SPLICES SHALL BE MADE ONLY WHERE INDICATED ON THE DRAWINGS.
- #4 DOWELS BETWEEN FOOTING AND WALLS OR COLUMNS SHALL BE THE SAME SPACING OR NUMBER AS THE VERTICAL REINFORCING, UNLESS NOTED OTHERWISE.
- ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.

FILE NAME: PM-DET

DATE COMPLETED
3-22-97

REVISIONS	Description	No.	Date	By	Approval

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