

STRUCTURAL ABBREVIATIONS

AB.	ANCHOR BOLT	JST.	JOIST
ABV.	ABOVE	JT.	JOINT
ADDL.	ADDITIONAL	K.	KIPS/(K000)
ADJ.	ADJACENT	LAT.	LATERAL
ALUM.	ALUMINUM	LB.(#)	POUND(S)
APA.	AMERICAN PLYWOOD ASSOCIATION	L.B.	LAS BOLTS
ALT.	ALTERNATE	L.F.	LINEAR FEET/FOOT
APPROX.	APPROXIMATELY	L.GTH.	LENGTH
ARCH.	ARCHITECTURAL	LLH.	LONG LEG HORIZ.
#	AT	LLV.	LONGITUDINAL
BEL.	BELOW	LV.	LONG LEG VERT.
B.F.	BRACED FRAME	LT.INT.	LIGHT HEIGHT
BLDG.	BUILDING	MAS.	MASONRY
BLK.	BLOCK	MATL.	MATERIAL
BLKG.	BLOCKING	MAX.	MAXIMUM
BM.	BEAM	M.B.	MACHINE BOLT
B.N.	BOUNDARY NAILING	MECH.	MECHANICAL
BNDRY.	BOUNDARY	MEZZ.	MEZZANINE
B.O.F.	BOTTOM OF FOOTING	MFR.	MANUFACTURER
BRDG.	BRIDGE(ING)	MISC.	MISCELLANEOUS
BRG.	BRACING	MIN.	MINIMUM
BOTT.(B)	BOTTOM	HTL.	METAL
B.TWN.	BETWEEN	NO.(#)	NUMBER
BS.	BOTH SIDES	N.S.	NEAR SIDE
CAMB.(C)	CAMBERED	N.T.S.	NOT TO SCALE
CE.	CARBON EQUIVALENT	O.C.	ON CENTER
CANT.	CANTILEVERED	O.D.	OUTSIDE DIAMETER
C.F.	CUBIC FEET/FOOT	PAR.	PARALLEL
C.I.P.	CAST IN PLACE	PIC.	PRECAST
CL.	CENTER LINE	PERP.	PERPENDICULAR
CLG.	CEILING	PL.	PLATE
CLR.	CLEAR	PLY.	PLYWOOD
COL.	COLUMN	P.S.F.	POUNDS PER SQUARE FOOT
CONC.	CONCRETE	P.S.I.	POUNDS PER SQUARE INCH
CONN.	CONNECTION	P.T.	PRESSURE TREATED
CONT.	CONTINUOUS	P.T.D.F.	PRESSURE TREATED DOUGLAS FIR
CONTR.	COUNTERSINK	QTY.	QUANTITY
CTR.	CENTERED	RAD.(R)	RADIUS
C.Y.	CUBIC YARD	R.C.P.	REINFORCED CONCRETE PIPE
#	FENNYNAILS	REF.	REFERENCE
DBL.	DOUBLE	R.F.	RIGID FRAME
DEPT.	DEPARTMENT	RENF.	REINFORCEMENT(ING)
D.F.	DOUGLAS FIR	REQD.	REQUIRED
DIA.	DIAMETER	R.O.	ROUGH OPENING
DIAPHR.	DIAPHRAGM	SCH.	SCHEDULE
DM.	DIMENSION	SHT.	SHEET
DN.	DOWN	SH.	SIMILAR
do	DITTO(REPEAT)	SKD.	SKENED
DP.	DEEP	SFC.	SPACE(S)
DWG.	DRAWING(S)	SPEC.	SPECIFICATION(S)
DNL.	DOWN(S)	SP.INSP.	SPECIAL INSPECTION
EA.	EACH	SQ.	SQUARE
E.F.	EACH FACE	STD.	STANDARD
E.J.	EXPANSION JOINT	STGR.	STAGGERED
EL.	ELEVATION	STF.	STIFFENER(S)
ELEC.	ELECTRICAL	STR.	STIRRUP(S)
ELEV.	ELEVATION	STL.	STEEL
EMBD.	EMBEDMENT	STRUC.	STRUCTURAL
EN.	EDGE NAIL	SUSP.	SUSPENDED(ION)
ENG.	ENGINEER	SYMM.	SYMMETRICAL
EQ.	EQUAL	T&B.	TOP AND BOTTOM
EQPT.	EQUIPMENT	T&G.	TONGUE AND GROOVE
EXP.	EXPANSION	TEMP.	TEMPERATURE
FAB.	FABRICATION	TH.	THICKNESS
FDN.	FOUNDATION	THRD.	THREADED
FN.	FINISHED	THRY.	TEMPORARY
FLG.	FLANGE	T.N.	TOE NAIL
FLR.	FLOOR	T.O.S.	TOP OF SHEATHING
FN.	FIELD (FACE NAIL)	T.O.W.	TOP OF WALL
F.O.C.	FACE OF CONCRETE	T.S.	TOP OF STEEL
F.O.M.	FACE OF MASONRY	TRANSV.	TRANSVERSE
F.O.S.	FACE OF STUD	TYP.	TYPICAL
F.O.N.	FACE OF NAIL	U.O.N.	UNLESS OTHERWISE NOTED
FRM.	FRAMING	VERT.(V)	VERTICAL
F.S.	FAR SIDE	(W)	WIDE(WIDTH)
FT.(#)	FOOTFEET	#	WITH
FTG.	FOOTING	WD.	WOOD
GA.	GAUGE	W.P.	WORK POINT
GALV.	GALVANIZED	W.P.J.	WEAKENED PLANE JOINT
GB.	GRADE BEAM	W.S.	WELDED STUD(S)
GLB.	GLUED LAMINATED BEAM	HT.	HEIGHT
GRD.	GRADE	W.F.	WELDED WIRE FABRIC
GYPED.	GYP(SUM) WALLBOARD	X-STG.	EXTRA STRONG
HD.	HOLD DOWN	XX-STG.	DOUBLE EXTRA STRONG
HRD.	HEADER	YD.	YARD
HGR.	HANGER		
HORIZ.(H)	HORIZONTAL		
HST.	HIGH STRENGTH BOLTS		
HT.	HEIGHT		
I.D.	INSIDE DIAMETER		
I.E.	INVERT ELEVATION		
N.(#)	NOTES		
INT.	INTERIOR		

DESIGN PARAMETERS:

COLUMN REACTIONS PROVIDED BY METAL BUILDING DESIGNER

GENERAL NOTES:

- THE CONTRACTOR SHALL VERIFY DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK AND THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES. IN NO CASES SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.
- ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- NO PIPES OR DUCTS SHALL BE PLACED IN WALLS UNLESS SPECIFICALLY SHOWN OR NOTED ON STRUCTURAL DRAWINGS. NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC., UNLESS NOTED.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF EXISTING UTILITY SERVICES IN THE AREA TO BE EXCAVATED PRIOR TO BEGINNING OF EXCAVATION.
- ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE 2009 EDITION OF THE NORTH CAROLINA STATE BUILDING CODE.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING AND SUPPORT NECESSARY TO ACHIEVE THE FINISHED STRUCTURE.

FOUNDATION NOTES:

- MAXIMUM DESIGN SOIL PRESSURE: 2,000 PSF
CONTINUOUS FOOTINGS: 2,000 PSF
PAD FOOTINGS: 2,000 PSF
- SEE SOILS REPORT BY: CONTRACTOR'S GEOTECHNICAL ENGINEER
PROJECT NO.: -
DATED: -
- ALL FOOTINGS TO BE A MINIMUM OF 18" BELOW NATURAL GRADE
18" BELOW FINISH GRADE
- SOILS COMPACTION AND SITE PREPARATION TO BE IN ACCORDANCE WITH SOILS REPORT. ALL WORK TO BE DONE UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER (AS APPLICABLE).
- CONTRACTOR/OWNER IS TO CONSULT W/ A GEOTECHNICAL ENGINEER FOR FOUNDATION DESIGN REVIEW AND ADDITIONAL RECOMMENDATIONS IF UNSUITABLE SOILS ARE ENCOUNTERED.
- FINISH EXCAVATION FOR FOUNDATION SHALL BE NEAT AND TRUE TO LINE WITH LOOSE MATERIAL REMOVED FROM EXCAVATION.
- THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER AND, BEFORE ANY FOOTING CONCRETE IS PLACED, SHALL BE CHECKED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER TO INSURE COMPLIANCE WITH THE REQUIREMENTS.
- SIZE OF FOUNDATION MAY BE FOUNDED AGAINST STABLE EARTH (U.O.N.)
- METHOD OF SUPPORTING REINFORCING PIPE SLEEVES MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC., ENCOUNTERED DURING EXCAVATION AND BACKFILLING.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS TO THE APPROVAL OF THE GEOTECHNICAL OR STRUCTURAL ENGINEER. FLOODING WILL NOT BE PERMITTED.(U.O.N.)
- ALL HOLD-DOWNS SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION, AS APPLICABLE.
- FOR ADDITIONAL DIMENSIONS SEE MANUFACTURER'S DRAWINGS.

CONCRETE NOTES:

- CONCRETE IN ALL WORK SHALL HAVE THE FOLLOWING ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS EXCEPT AS MODIFIED BY THESE NOTES:

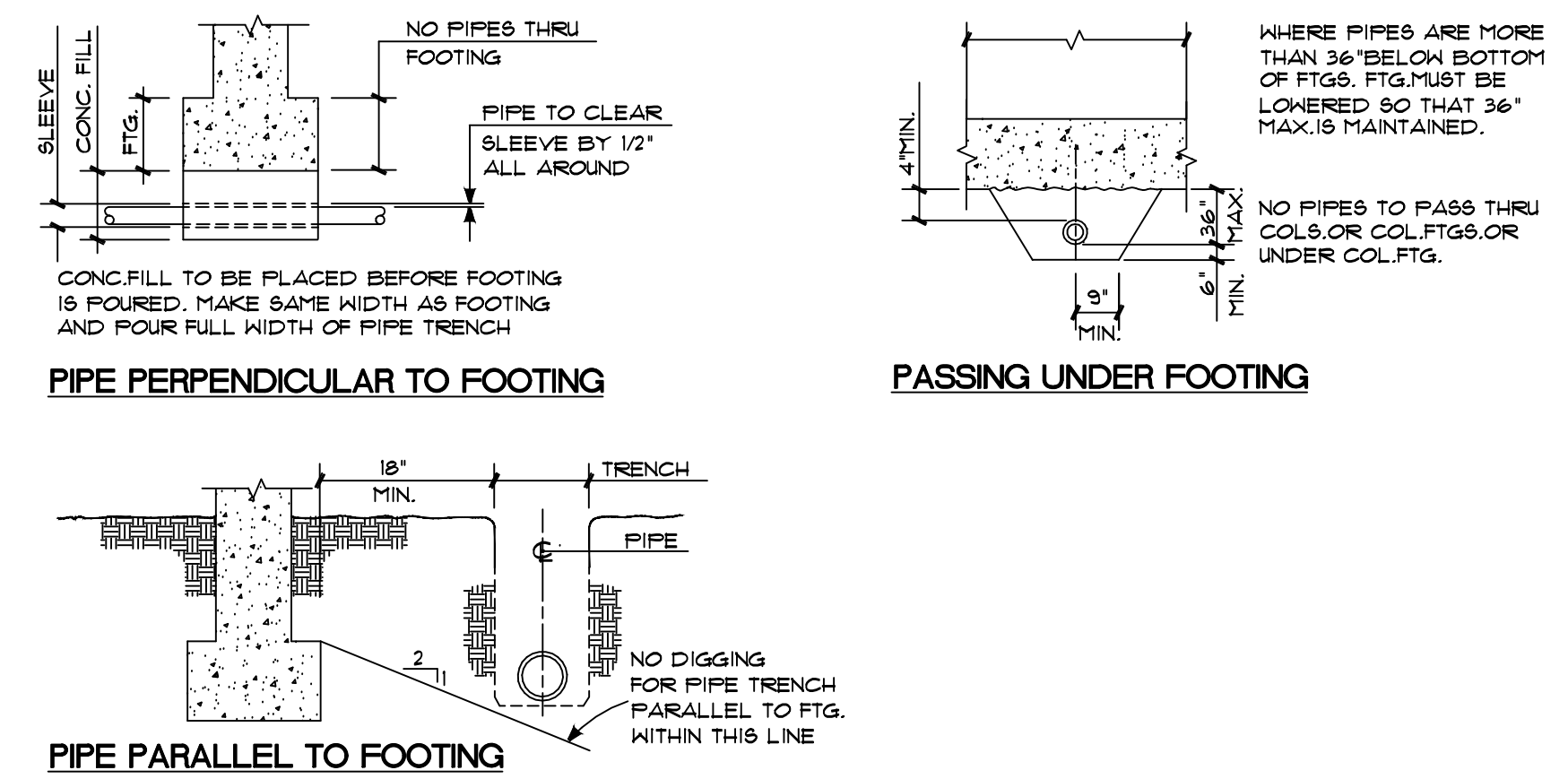
A. SLAB ON GRADE (NO SP, INSP.)	<u>3,000</u>	PSI
B. FOOTINGS	<u>3,000</u>	PSI
C. WALLS	<u>PSI</u>	
D. CIP BEAMS & STRUCTURAL SLABS	<u>PSI</u>	
E. COLUMNS	<u>PSI</u>	
F. POST TENSION SLAB	<u>PSI</u>	
G. GRADE BEAMS (GB'S)	<u>PSI</u>	
H. CONCRETE OVER STEEL DECKS	<u>PSI</u>	
- PRECAST CONCRETE TOPPING SEE NOTES IN APPROPRIATE SECTION.
- TILT-UP CONCRETE SEE NOTES IN APPROPRIATE SECTION.
- CONCRETE TOPPING OVER PLYWOOD:

A. STRUCTURAL LIGHT-WEIGHT:	<u>3,000</u>	PSI (SEE NOTE BELOW)
B. NORMAL WEIGHT:	<u>3,000</u>	PSI
C. CELLULAR:	<u>1,000</u>	PSI (SEE NOTE 2 BELOW)
- LIGHT WEIGHT CONCRETE SHALL BE AIR ENTRAINED AND HAVE A DENSITY RANGE OF 115 PCF MAXIMUM AND 100 PCF MINIMUM.
- COMPRESSIVE STRENGTH TEST REPORTS SHOULD BE RETAINED BY THE CONTRACTOR WHEN TESTING IS REQUIRED.
- CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR TYPE II.
- AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO
- READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94-01.
- ADMIXTURES MAY BE USED WITH THE PRIOR APPROVAL OF THE ENGINEER. ADMIXTURE (COMPLYING WITH ASTM A494) USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT. (CALCIUM CHLORIDE SHALL NOT BE USED).
- WATER SHALL BE CLEAN, FREE FROM DELETERIOUS AMOUNT OF ACIDS, ALKALIS OR ORGANIC MATERIALS.
- REFER TO ARCHITECTURAL DRAWINGS (AS APPLICABLE) FOR MOLDS, GROOVES, ORNAMENTS, CLIPS OR GROUNDS REQUIRED TO BE CAST INTO CONCRETE AND FOR EXTENT OF DEPRESSIONS, CURBS, AND RAMPS.
- DOWELS BETWEEN FOOTINGS AND WALLS SHALL BE THE SAME SIZE, GRADE AND SPACING AS VERTICAL WALL REINFORCING, (U.O.N.)
- SLUMPS: THE MAXIMUM SLUMP SHALL NOT EXCEED 4" FOR FOOTINGS, SLABS ON EARTH AND MASS CONCRETE AND 5" FOR OTHER CONCRETE. DURING TEMPERATURES ABOVE 80 F. MAXIMUM OF 6" SLUMP IS PERMISSIBLE PROVIDED THE MIX DESIGN IS REVISED ACCORDINGLY BY THE TESTING LABORATORY. MEASURE SLUMP IN ACCORDANCE WITH METHOD OF TEST FOR SLUMP OF PORTLAND CEMENT CONCRETE ASTM C143.
- NO SLEEVES OR CHASES SHALL BE PLACED IN BEAM'S SLABS OR WALLS EXCEPT AS SHOWN ON PLANS. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL SLEEVES OR CHASES. NO CONDUIT SHALL BE PLACED IN THE CONCRETE TOPPING OVER STEEL DECKING.
- SLEEVE PLUMBING OPENINGS IN CONCRETE WALLS AND SLABS BEFORE PLACING CONCRETE. BEND REINFORCEMENT AROUND SLEEVES.
- PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 1/4" CHAMFER.
- IN THE EVENT OF AN UNINTENTIONAL COLD JOINT, THE CONTRACTOR SHALL REMOVE ALL LAITANCE AND DELETERIOUS MATERIAL TO PROVIDE A SOUND, CLEAN, ROUGH SURFACE AND USE A BONDING AGENT THAT PRODUCES A HIGHER STRENGTH JOINT THAN THE CONCRETE USED - Fc + 25% MINIMUM.
- CONCRETE COVER SHALL BE IN ACCORDANCE WITH SECTION 7.1 OF ACI 318.
- DO NOT DISPLACE REBAR FROM THEIR INTENDED POSITIONS DURING CONCRETING.

REINFORCING STEEL NOTES:

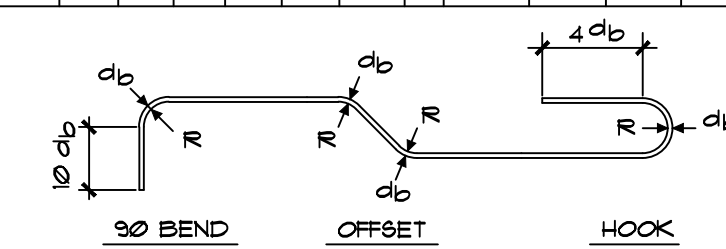
- BAR REINFORCEMENT SHALL BE: GR 40 = #4 & SMALLER
ASTM A615 GR. 60 = #5 & LARGER
- THE 'CARBON EQUIVALENT' OF ANY REINFORCING TO BE WELDED SHALL BE DETERMINED BY A TESTING LAB. IF THE 'CARBON EQUIVALENT' (C.E.) IS LESS THAN 0.55, THEN THE REINFORCING STEEL MAY BE WELDED WITHOUT PREHEATING. IF THE CARBON EQUIVALENT EXCEEDS 0.55, NOTIFY THE STRUCTURAL ENGINEER FOR THE PREHEATING REQUIREMENTS. WELDING WILL NOT BE ALLOWED FOR A CARBON EQUIVALENT ABOVE 0.75. WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH UBC STANDARD NO. 19-1. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE LAPPED 12 INCHES MINIMUM. E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REBAR. E90XX ELECTRODES SHALL BE USED IN WELDING GRADE 40 REBAR.
- VERTICAL BARS IN WALLS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF WALL (U.O.N.) AND SHALL BE TIED IN POSITION AT TOP AND BOTTOM AND AT INTERVALS PER CHAPTERS 19 AND 21 OF THE 1991 UBC.
- REINFORCING DETAILING AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE 'MANUAL OF STANDARD PRACTICE' LATEST EDITION.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.

FOOTINGS (CONC. DEPOSITED AGAINST EARTH).....	3"
CONC. SURFACE (FORMED) EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #8 BARS.....	2"
#5 & SMALLER.....	1 1/2"
CONC. NOT EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS & JOIST:	
#4 & #6 BARS.....	1 1/2"
#1 BAR & SMALLER.....	3/4"
BEAM'S, COLUMNS :	
PRIMARY REINFORCEMENT TIES STIRRUPS, SPIRALS: 1 1/2"	

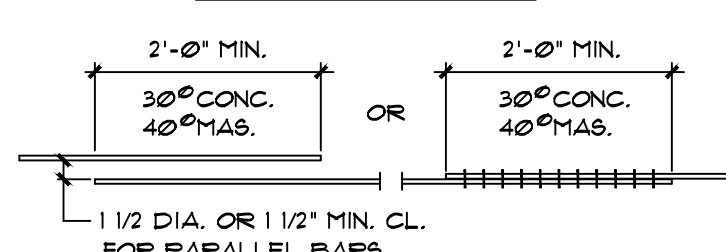


TYPICAL DETAIL OF PIPING AT FOOTINGS AND FOUNDATION WALLS

BAR SIZE	2	3	4	5	6	7	8	9	10	11	14	18
BAR DIA.	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	3/8	1 3/4	2 1/4

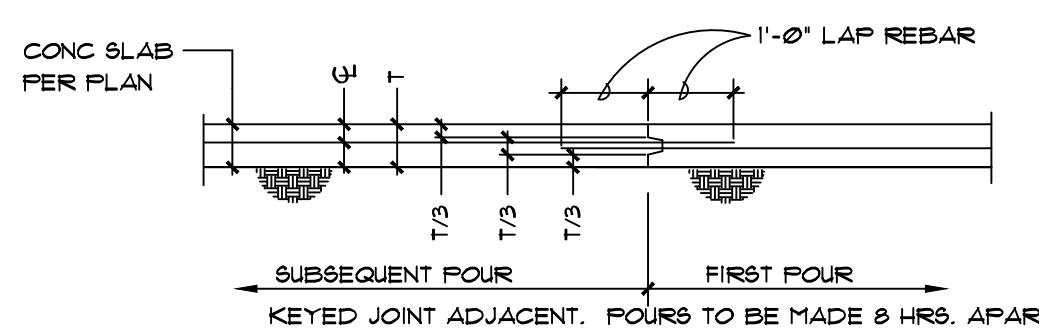
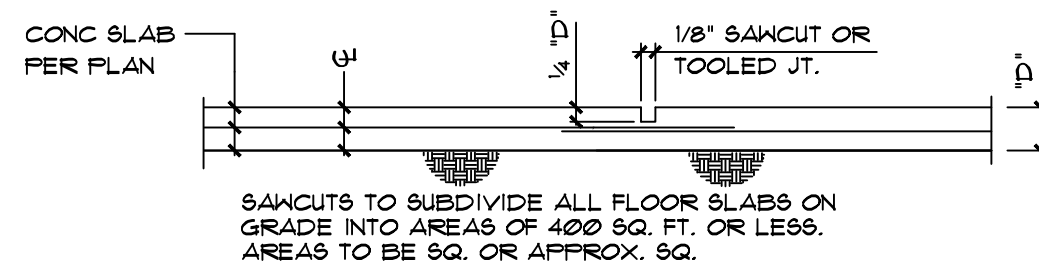


TYPICAL BAR BEND



TYPICAL SPLICE

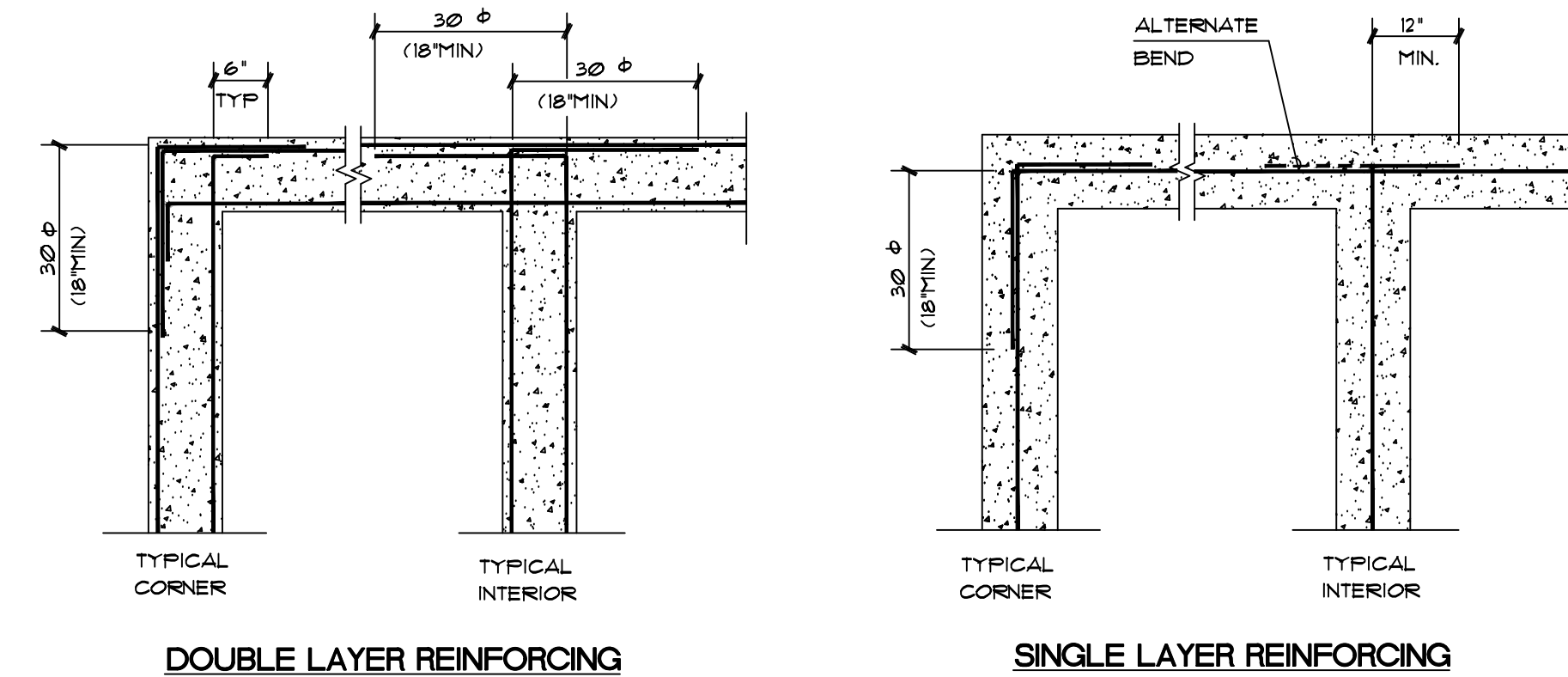
REINF. BAR BEND AND SPLICE DETAIL



NOTE: SLAB UNDERLAYMENT PREPARATION BY OTHERS

CONSTRUCTION JOINTS

SLAB ON GRADE



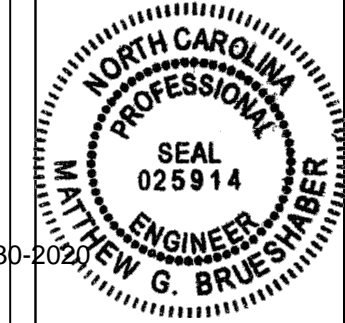
DOUBLE LAYER REINFORCING

SINGLE LAYER REINFORCING

TYP. REINF. AT INTERSECTION OF CONCRETE FOOTINGS

REVISIONS	BY

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10-30-2020

ICN Partners LLC
540 Farabow Drive
Holly Springs, NC 27540

DATE	9-9-20
SCALE	AS SHOWN
DRAWN	A. VALLIN
JOB	20-2049
SHEET	SP1
OF	SHEETS

NOTES:

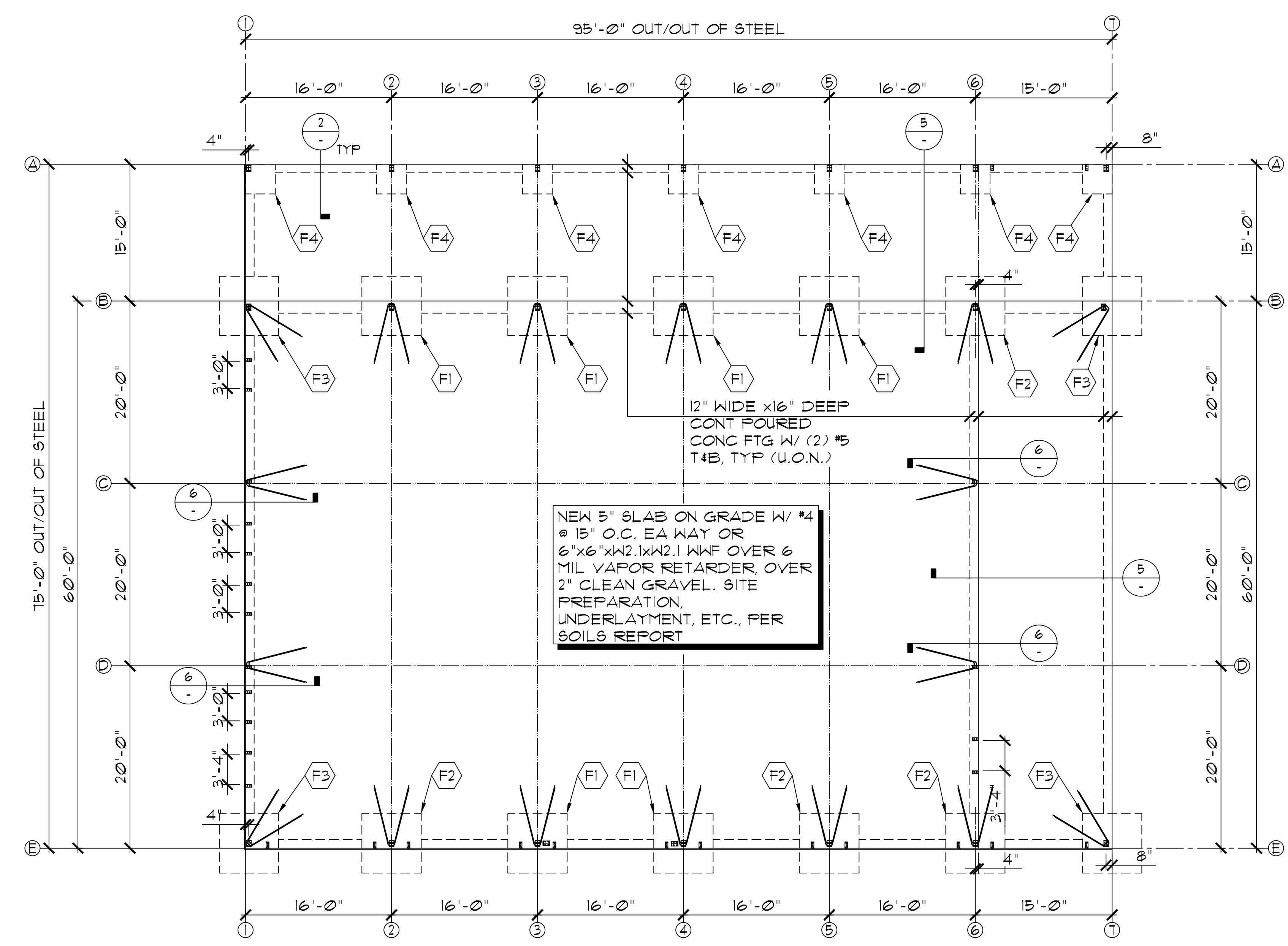
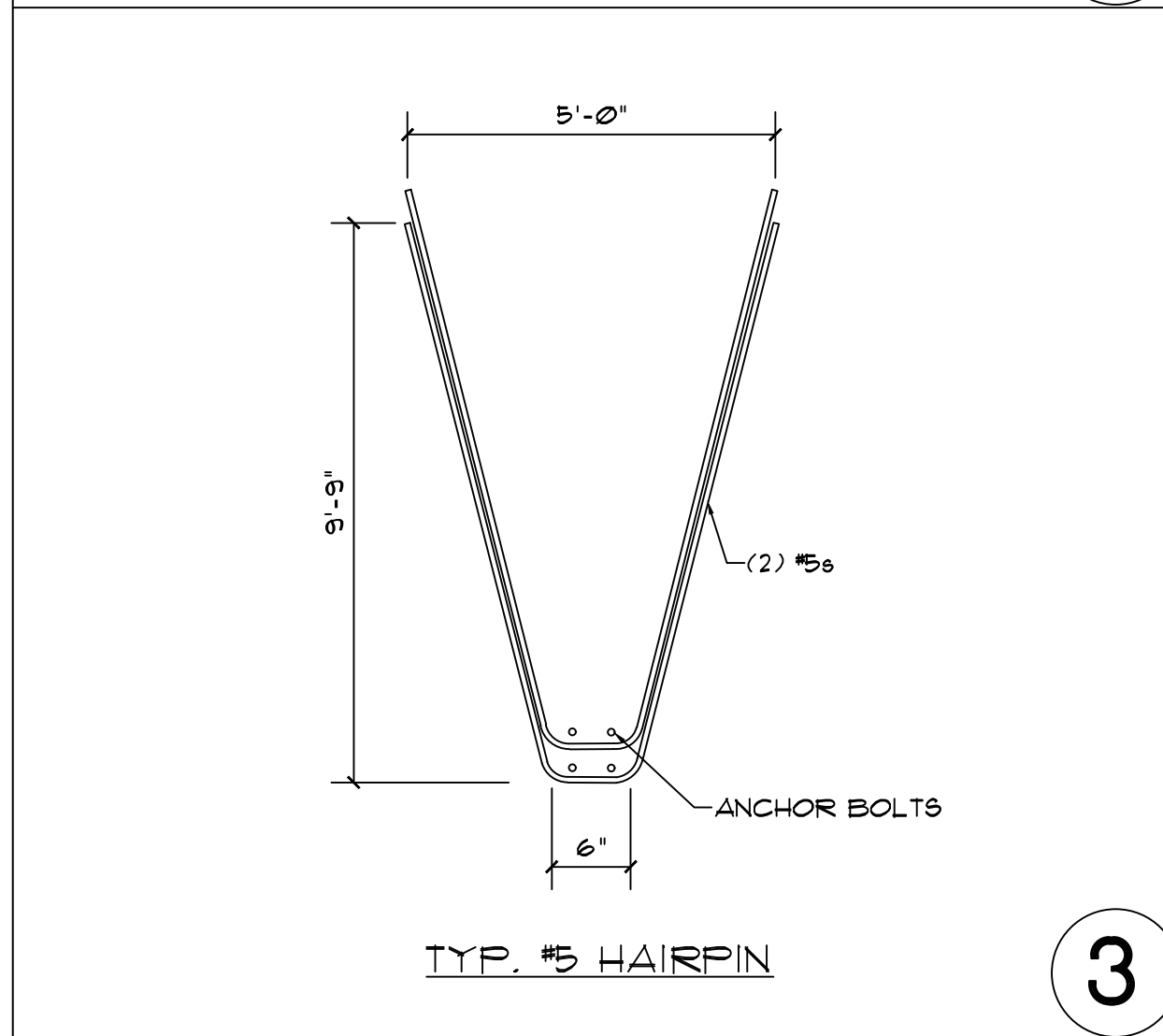
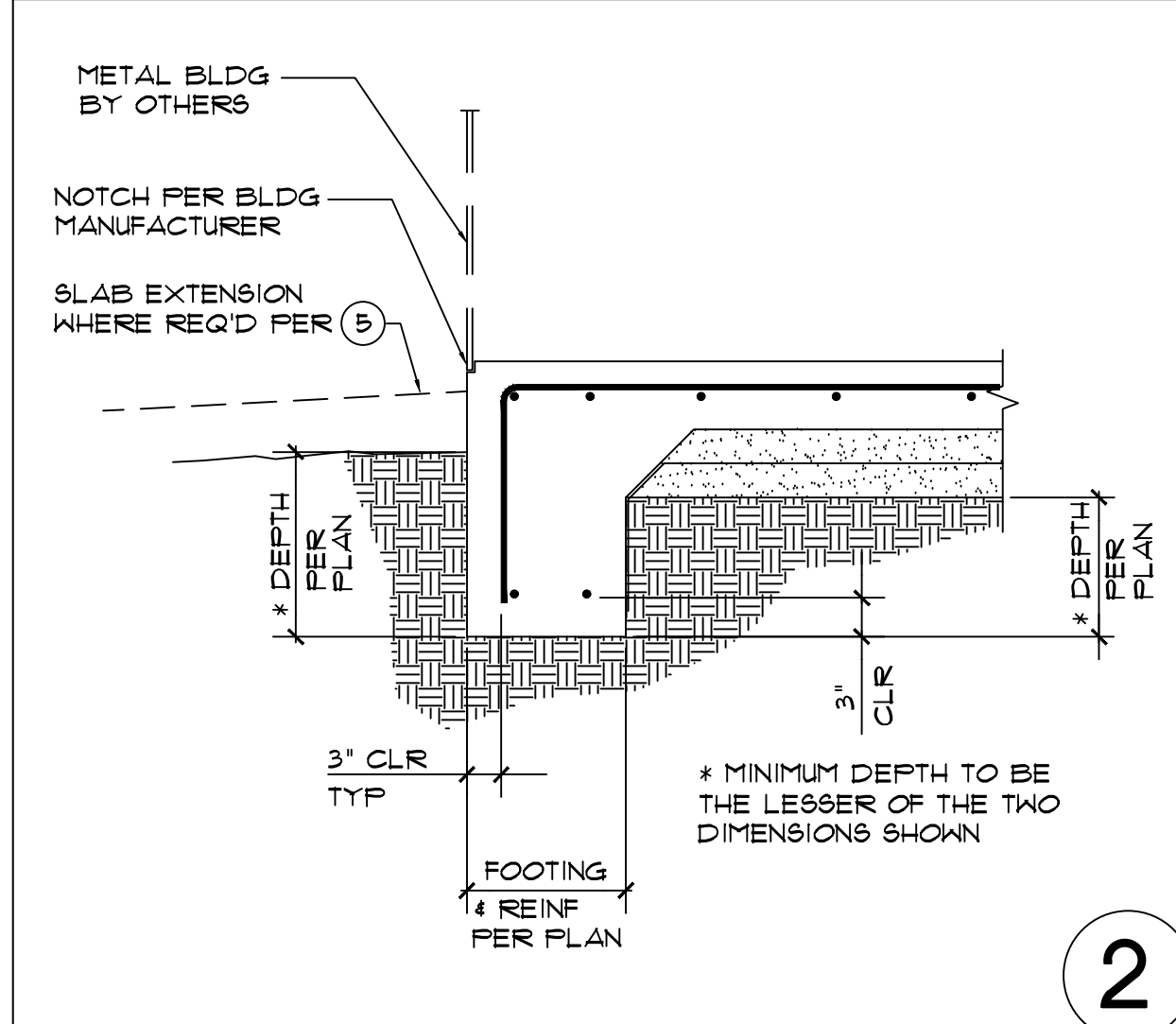
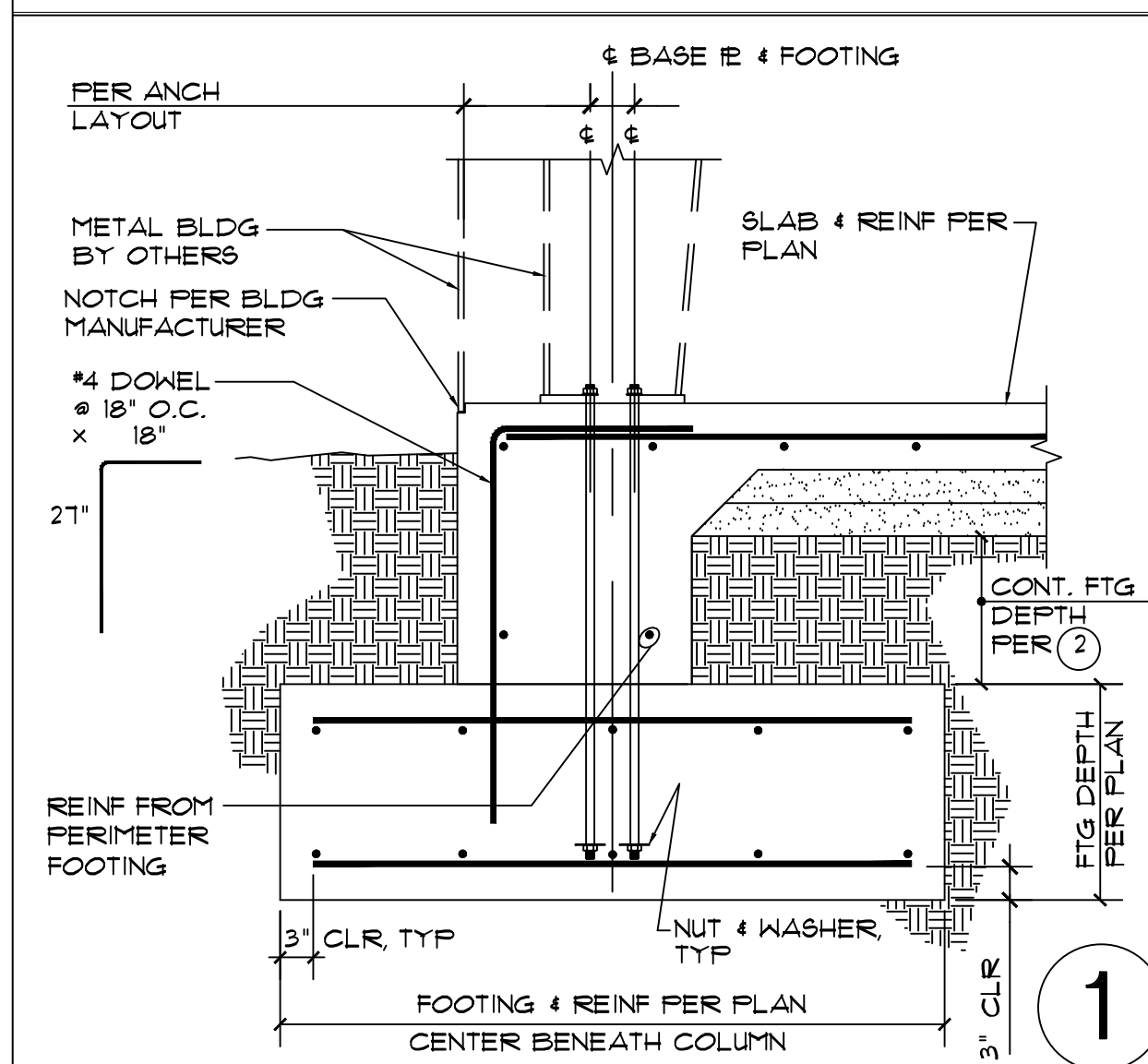
1. ASSUMED SOIL BEARING CAPACITY IS 2000 PSF. CONTRACTOR MUST CONTACT A SOILS ENGINEER IF UNSUITABLE SOILS ARE ENCOUNTERED.
2. ADEQUATE DRAINAGE SHALL BE PROVIDED FOR THE SURFACE AREA ADJACENT TO THE STRUCTURE SUCH THAT WASTER DRAINS AWAY FROM STRUCTURE.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS W/ METAL BUILDING FLOOR PLAN & ANCHOR BOLT LAYOUT PRIOR TO WORK.
4. CONTRACTOR TO COORDINATE BUILDING LOCATION & ORIENTATION W/ OWNER.
5. METAL BUILDING DESIGN BY OTHERS.
6. FOR ADDITIONAL NOTES SEE SHEET 6P1.
7. ANCHOR BOLTS SHALL BE GR. 36 INSTALLED PER DETAILS. FOR EXACT ANCHOR BOLT LOCATION SEE ANCHOR BOLT PLAN (BY BLDG MANUFACTURER)
8. SEE ANCHOR BOLT PLAN (BY BLDG MANUFACTURER) FOR SLOPE IN SLAB AT OVERHEAD & ROLL-UP DOOR.

LEGEND:

- INDICATES CONTINUOUS FOOTING PER PLAN
- INDICATES CRACK CONTROL JOINT PER 4/6P1. CONTRACTOR TO INSTALL ADDITIONAL CONTROL JOINTS AS NEEDED TO PREVENT SLAB CRACKS
- INDICATES PAD FOOTING PER PLAN
- INDICATES COLUMN & BASE PLATE BY OTHERS
- INDICATES DOOR JAMB CONNECTOR CLIP BY BUILDING MANUFACTURER W/ (2) 1/2" Φ F1554 Gr. 36 ANCHOR BOLTS, DILLED 6" THROUGH THE TOP SURFACE OF THE SLAB & EPOXIED W/ SIMPSON "AT-XP" PER EPOXY MFR'S GUIDELINES. JAMB CHANNELS TO BE FIELD LOCATED U.O.N.

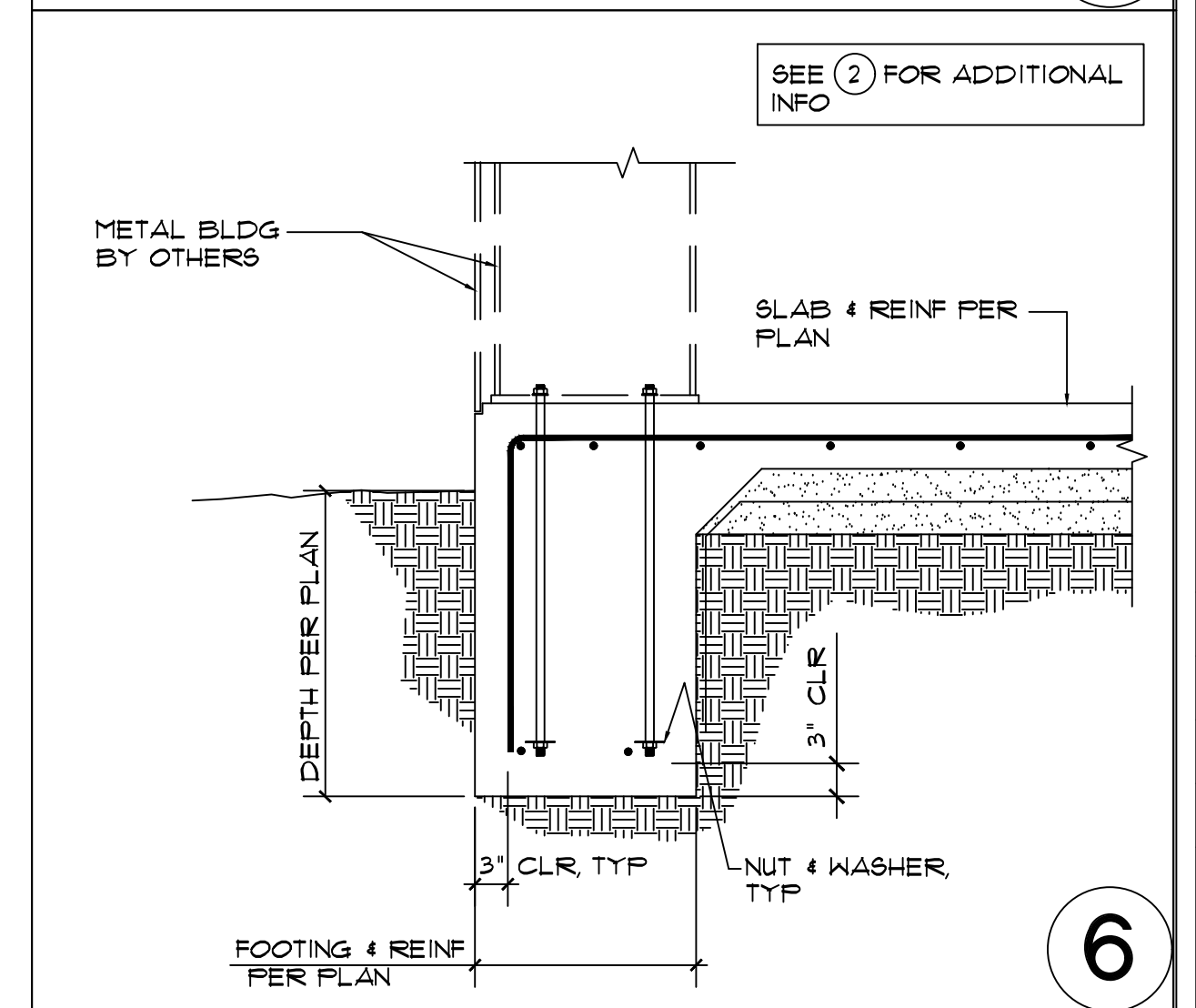
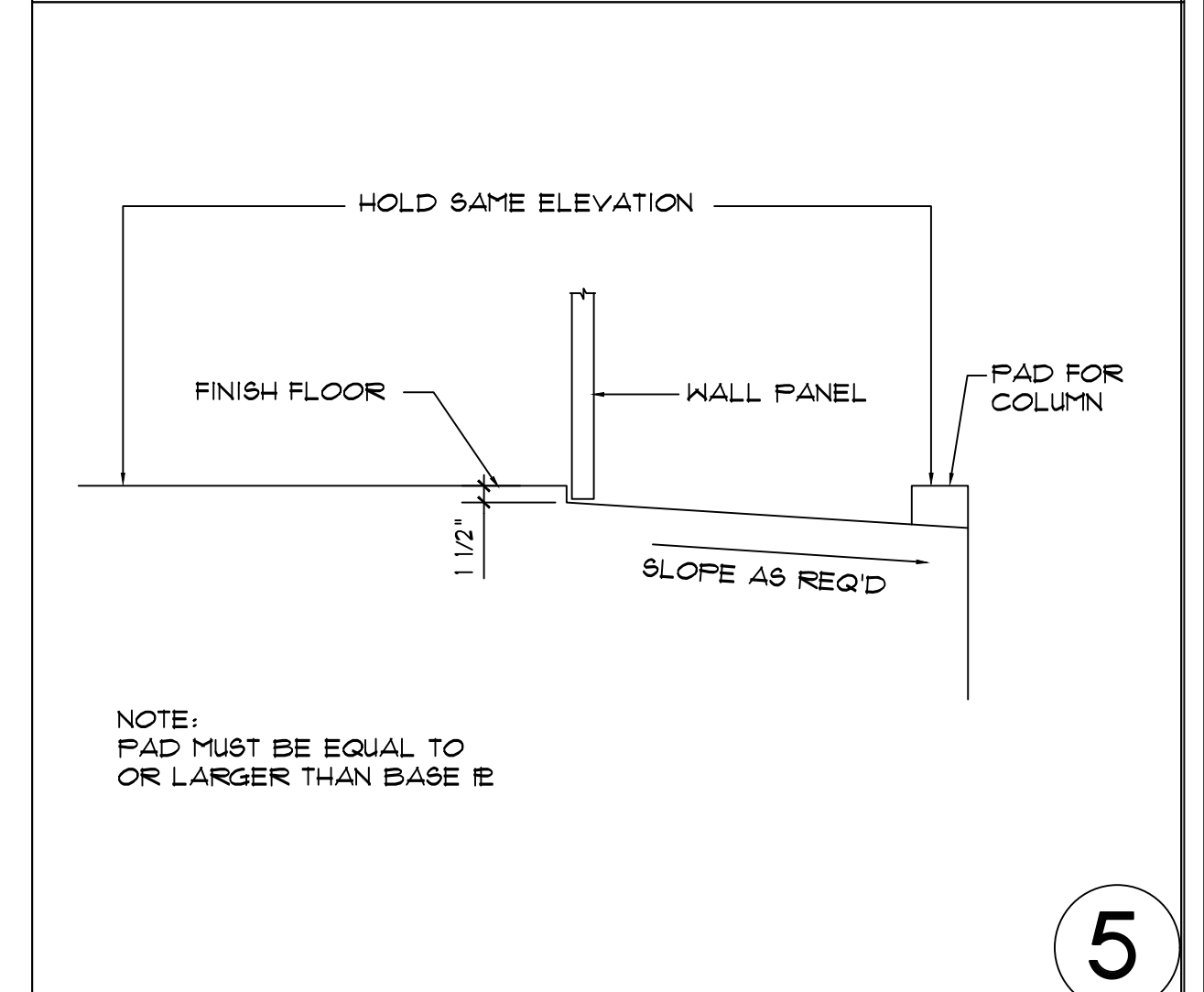
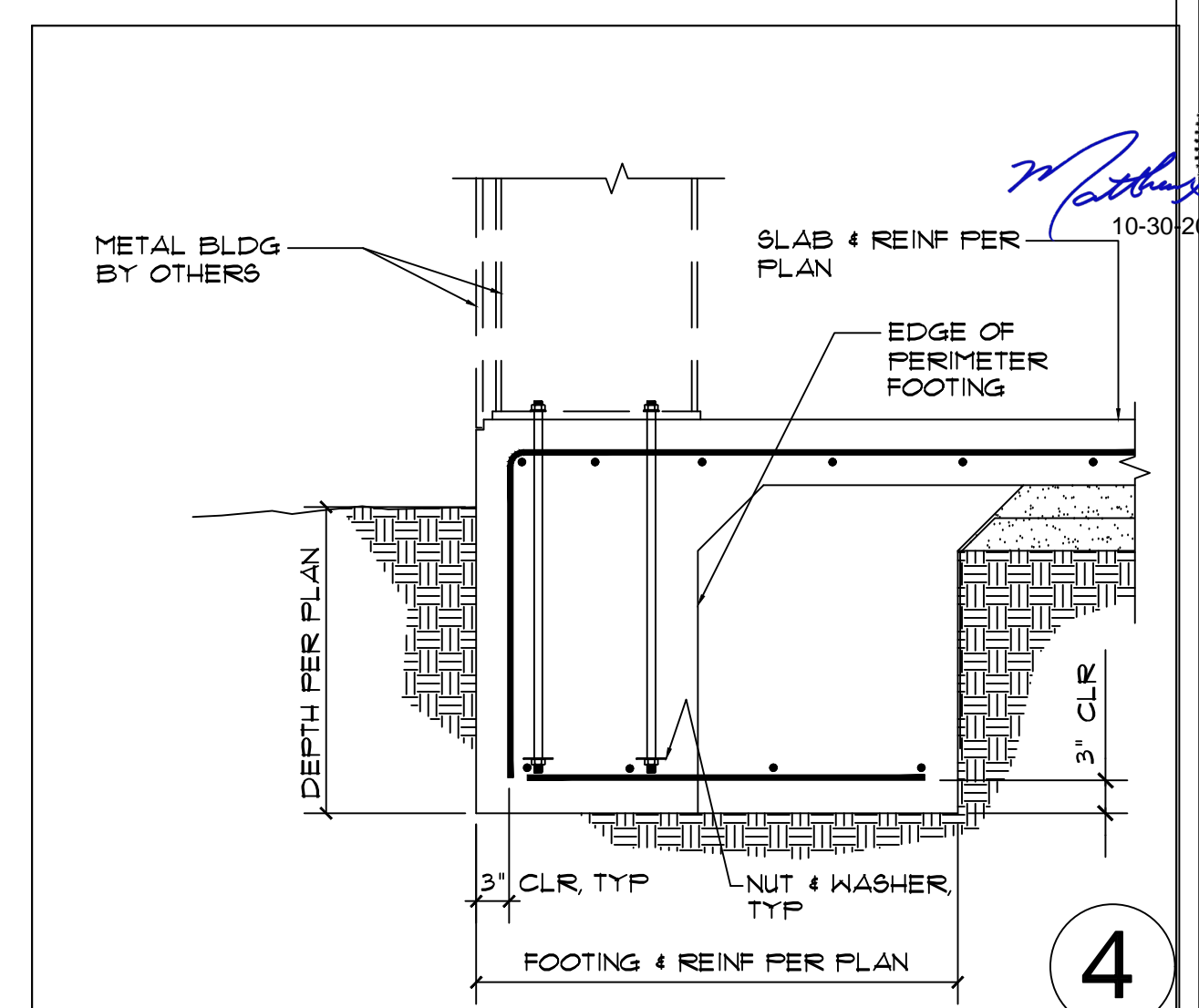
FOOTING SCHEDULE:

FOOTING	SIZE	REINF	NOTES
F1	5'-0"x5'-6"x18"	(4) #5 EA WAY T&B	DETAIL 1
F2	4'-0"x4'-0"x18"	(3) #5 EA WAY T&B	DETAIL 1
F3	3'-6"x3'-6"x18"	(3) #5 EA WAY T&B	DETAIL 1
F4	4'-0"x4'-0"x16"	(5) #5 EW WAY @ BOTT	DETAIL 4



NEW 5" SLAB ON GRADE W/ #4 @ 15" O.C. EA WAY OR 6"x6"x2.1x2.1 W/ 6 MIL VAPOR RETARDER, OVER 2" CLEAN GRAVEL. SITE PREPARATION, UNDERLAYMENT, ETC., PER SOILS REPORT

FOUNDATION PLAN
SCALE: 1/8"=1'-0"



REVISIONS BY

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OF SHEETS