ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH. MAXIMUM AGGREGATE SIZE FOR PIERS TO BE 12", GRADE BEAMS AND SLABS TO HAVE A 1" MAXIMUM AGGREGATE. PROVIDE 6% AIR ENTRAINMENT IN GRADE BEAMS AND ALL EXTERIOR SLABS, BEAMS, ETC. SLUMP SHALL BE 4 INCHES FOR PIERS, 5 INCHES FOR GRADE BEAM & SLAB.

ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 PSI YIELD POINT) EXCEPT THAT #3 3ARS

MAY BE ASTM A-615 GRADE 40(40,000 PSI YIELD POINT). REINFORCING STEEL FOR WELDING SHALL CONFORM TO ASTM A-615 GRADE 40.

WELDING PROCESS SHALL CONFORM TO AWS D-12.1-75. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE A.C.I. STANDARD "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". (ACI 318) LATEST REVISION.

REINFORCING BARS SHALL BE DETAILED AND BAR SUPPORTS AND SPACERS PROVIDED IN ACCORDANCE WITH THE A.C.I. DETAILING MANUAL (ACI-315) AND MANUAL OF STANDARD PRACTICE.

GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS WHERE POSSIBLE. SPLICE BOTTOM BARS AT CENTERLINE OF SUPPORT AND SPLICE TOP BARS AT CENTERLINE OF SPAN. MINIMUM LAP SHALL BE 30 BAR DIAMETERS.

PROVIDE CORNER BARS FOR ALL BARS MEETING AT ALL BEAM INTERSECTIONS. SIZE AND NUMBER OF CORNER BARS SHALL BE EQUAL TO THE LARGER BARS INTERSECTING. MINIMUM LAP DIMENSION TO BE 30 BAR DIAMETERS OR 2'-0" MINIMUM. SEE ARCHITECTURAL AND MECHANICAL PLANS FOR VERIFICATION OF ALL CAST-IN

PLACE BOLTS, INSERTS, ANCHORS, ETC., AND ALL SLAB LEAVE-OUTS, SLOPES DEPRESSIONS, ETC.

STRUCTURAL STEEL SHAPES, PLATES, ETC., SHALL CONFORM TO ASTM A-36. ANCHOR BOLTS SHALL BE A307. PIPE COLUMNS SHALL CONFORM TO ASTM A-501, OR ASTM A53, TYPE E OR S.

TUBE COLUMNS SHALL CONFORM TO ASTM A500, GRADE B. STRUCTURAL STEEL SHALL CONFORM TO THE A.I.S.C. "SPECIFICATION FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"

EIGHTH EDITION, LATEST REVISION. WELDED CONNECTIONS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY

SPECIFICATIONS AND REQUIREMENTS, LATEST REVISION, E-70XX ELECTRODES. STRUCTURAL BOLTS, NUTS, AND CIRCULAR WASHERS SHALL BE ASTM A-325 OR A-490 BOLTS IN BEARING-TYPE CONNECTIONS. BOLTS AND BOLTED JOINTS SHALL CONFORM WITH THE A.I.S.C. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS. USE BEARING-TYPE BOLTS WITH THREAD ALLOWED. ACROSS THE SHEAR PLANE.

15. PLATE SIZES, ANGLE SIZES, NUMBER AND SIZE OF BOLTS AND OR WELDS FOR CONNECTIONS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF PART4 OF THE EIGHTH EDITION OF THE A.I.S.C. MANUAL FOR THE SHEAR SHOWN ON THE DRAWINGS.

16. IN GENERAL. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED OR BOLTED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE ON THE DRAWINGS.

NO SHOP OR FIELD SPLICES WILL BE ALLOWED IN ANY BEAMS, GIRDERS, OR COLUMNS AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS.

VERIFY THE EXACT SIZE AND LOCATION OF ALL MECHANICAL OPENINGS WITH THE MECHANICAL CONTRACTOR AND THE EQUIPMENT TO BE USED.

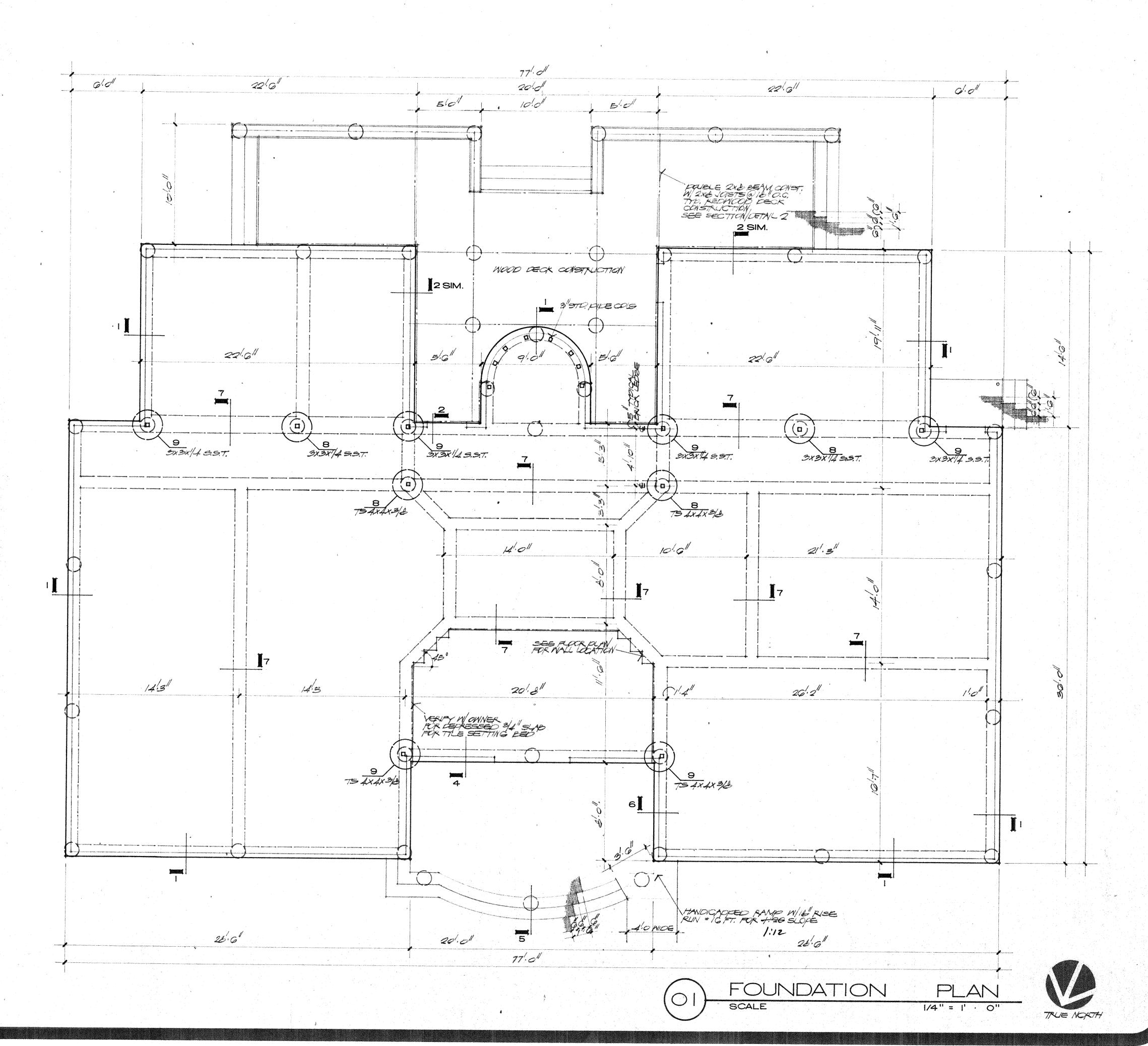
19. ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED ON THESE CONTRACT DOCUMENTS SHALL BE SUBMITTED, IN WRITING, TO THE ENGINEER FOR LEVIEW. SHOP DRAWINGS THAT ARE SUBMITTED TO THE ENGINEER FOR HIS REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS BROUGHT TO THE ATTENTION OF THE ENGINEER THAT SPECIFIC CHANGES ARE BEING SUGGESTED.

SLAB ON GRADE NOTES

- SLAB SHALL BE A 4" THICK CONCRETE SLAB OVER 2'-0" MINIMUM LOW P.I. FILL REINFORCE SLAB WITH #3 BARS AT 18" O.C., EACH WAY, PLACED AT CENTERLINE
- PRIOR TO PLACING THE LOW P.I. FILL, STRIP THE SITE OF TOP SOIL, DEBRIS FILL, ETC., AND CUT AS REQUIRED.
- PRIOR TO PLACING THE SELECT FILL, SCAFIRY THE TOP 6" OF THE EXPOSED SUB-GRADE, RAISE MOISTURE CONTENT ABOVE OPTIMUM CONTENT, AND RECEMPACT TO 95% OF ASTM D-698.
- BEGIN PLACEMENT OF SELECT FILL NOT MORE THAN 8 HOURS AFTER COMPLETION OF RECOMPACTION OF THE EXISTING SUBGRADE AS NOTED ABOVE.
- LOW P.I. FILL SHALL HAVE A MAXIMUM P.I. OF 15, MINIMUM P.I. OF 4, AND LIQUID LIMIT OF 30 OR LESS. PLACE FILL IN 8" LOOSE LIFTS AND COMPACTED TO 95% TO 100% OF ASTM D-698 AT OR ABOVE OPTIMUM MOISTURE CONTENT. 7. SEPARATE SLAB FROM SUBGRADE WITH A 6 MIL POLYETHYLENE VAPOR BARRIER.

FOUNDATION NOTES

- DEPTH OF PIERS SHOWN IS FOR BIDDING PURPOSES ONLY AND MAY VARY ACCORDING TO THE ACTUAL FIELD CONDITIONS.
- 2. THE CONTRACTOR SHALL VERIFY DEPTHS OF PIERS BEFORE PIER STEEL IS CUT PIER STEEL SHALL BE DELIVERED TO THE JOB SITE IN 40'-0" LENGTHS AND CUT AS REQUIRED.
- FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS CONTAINED IN THE SOILS REPORT BY "MAXIM ENGINEERS" DATED DEC. 21, 1981. THE DESIGN PARAMETERS ARE:
 - ALLOWABLE END BEARING
- 36,000 PSF ALLOWABLE SKIN FRICTION 4,500 PSF THE CONTRACTOR SHALL MAKE ACCURATE MEASUREMENTS OF THE DEPTH OF PENETRATION INTO THE BEARING STRATA TO BE ASSURED OF CONFORMANCE WITH THE DEPTH OF PENETRATION REQUIRED AND SUBMIT A REPORT OF THE DEPTH OF PENETRATION DRILLED TO THE ENGINEER.
- BEARING STRATA SHOWN ON THE PIER DETAIL IS GREY LIMESTONE.
- MINIMUM PENETRATION INTO THE BEARING STRATA SHALL BE 2'-0". DUE TO THE PRESENCE OF GROUND WATER AND/OR CAVING SOILS CASING OF HOLES MAY BE REQUIRED.
- CONCRETING OF INDIVIDUAL PIERS SHALL BE COMPLETED WITHIN 8 HOURS
- OF DRILLING.



REVISIONS