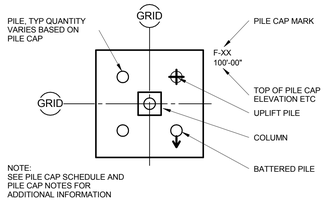
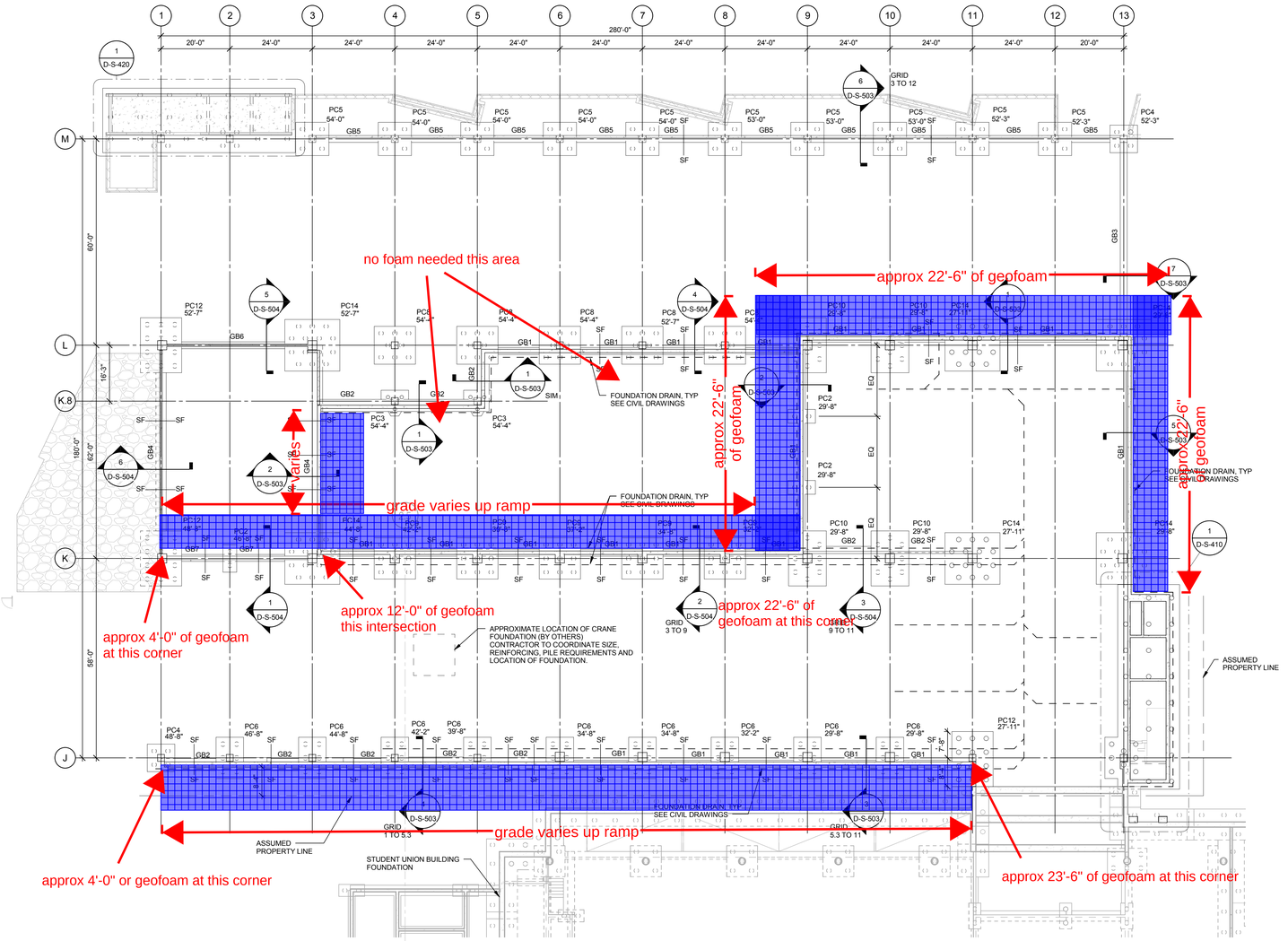


2 STRUCTURAL FOUNDATION LEGEND FOR PILES



1 FOUNDATION LEVEL

1/16" = 1'-0"

0 8' 16' 32'
1/16" = 1'-0"

BASEMENT FLOOR SLAB AND WALLS HAVE NOT BEEN DESIGNED FOR HYDROSTATIC PRESSURE. SEE CIVIL DWGS FOR DRAINAGE AND PRESSURE RELIEF PANELS/VALVES

TRUE NORTH

SHEET NOTES

REFERENCES

1. SEE D-S-001 TO D-S-002 FOR GENERAL NOTES AND LEGEND.
2. SEE D-S-004 FOR TYPICAL DETAILS, INCLUDING TYPICAL CIP REINFORCING DETAILS.
3. SEE D-S-410 AND D-S-420 FOR ENLARGED STAIR FOUNDATION PLANS.
4. SEE D-S-501 FOR PILE CAP DETAILS AND SCHEDULE.
5. SEE D-S-502 FOR GRADE BEAM DETAILS AND SCHEDULE.
6. SEE D-S-503 & D-S-504 FOR FOUNDATION DETAILS.

GENERAL FOUNDATION NOTES

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY ENGINEER & ARCHITECT OF ANY DISCREPANCIES.
2. SEE CIVIL DRAWINGS TO LOCATE BUILDING WITH PROPERTY LINES AND ELEVATION BENCHMARKS.
3. SEE CIVIL DRAWINGS FOR EXTERIOR GRADES, UTILITIES, ADJACENT STRUCTURES AND PROPERTY LINES. NOTIFY ENGINEER OF ANY CONFLICTS IMMEDIATELY.
4. FOR UTILITIES NEAR FOUNDATIONS, SEE MEP DRAWINGS.
5. COORDINATE PENETRATIONS IN GRADE BEAMS WITH MEP AND CIVIL DRAWINGS, SHOW PENETRATIONS ON ALL SHOP DRAWINGS. SEE SHEET D-S-502.
6. RETAINING WALLS ARE DESIGNED AND DETAILED FOR THEIR FINAL CONDITION. WALLS DESIGNATED AS BASEMENT WALLS ARE DESIGNED TO BE RESTRAINED AT TOP BY CIP SLAB IN FINAL CONDITION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING DURING BACKFILLING AND UNTIL ALL SUPPORTING SOIL AND SLABS ARE IN PLACE AND CONCRETE HAS REACHED ITS DESIGN STRENGTH, UNLESS NOTED OTHERWISE ON DRAWINGS.
7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY EXCAVATIONS BRACING, SHEETING AND SHORING.
8. PROVIDE CONSTRUCTION JOINTS IN GRADE BEAMS IF NEEDED. LOCATE AT 1/3 POINT OF SPAN. PROVIDE (2) 1 1/2" x 5 1/2" x 2'-0" LONG HORIZONTAL SHEAR KEYS AT 1'-0" OC.
9. PROVIDE CORNER REINFORCEMENT FOR FOOTINGS AND GRADE BEAMS PER 2/D-S-004 AND 5/D-S-004.
10. PROVIDE 3" CLEAR COVER FOR ALL BOTTOM REINFORCEMENT AND 2" CLEAR FOR ALL TOP REINFORCEMENT, UNLESS NOTED OTHERWISE.
11. SEE D-S-601 FOR COLUMN DOWEL REQUIREMENTS.
12. CONTRACTOR TO PROTECT SUBGRADE FROM DAMAGE DUE TO WEATHER.

PILE FOUNDATION NOTES

1. INSTALLATION OF PILE FOUNDATION SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED DESIGN PROFESSIONAL IN THE STATE OF NORTH CAROLINA. THE DESIGN PROFESSIONAL SHALL BE KNOWLEDGEABLE IN THE FIELD OF SOIL MECHANICS AND PILE FOUNDATIONS.
2. PILES SHALL NOT BE INSTALLED WITHIN SIX PILE DIAMETERS CENTER-TO-CENTER OF A PILE INSTALLED WITHIN PREVIOUS 24 HOURS.
3. PILES SHALL BE INSTALLED USING NON-DISPLACEMENT METHODS AND TO A DEPTH OF 60 TO 65 FEET BELOW THE EXISTING GROUND SURFACE. PILE TIP ELEVATION = -8 TO -12 FEET.
4. PILE REINFORCING SHALL BE INSERTED BEFORE GROUT SET OCCURS. REINFORCING SHALL BE INSTALLED CENTERED AND PLUMB IN PILE. PROVIDE SELF-CENTERING DEVICES ON SINGLE REINFORCING BARS.
5. INSTALL AND PERFORM STATIC LOAD TEST ON TWO PILES PRIOR TO BEGINNING PRODUCTION PILE INSTALLATION. TEST PILES ARE TO BE INSTALLED OUTSIDE OF THE DESIGN PILE LAYOUT. LOAD TEST SHALL BE IN ACCORDANCE WITH ASTM D1143-07 PARAGRAPH 8.1.2. PILES SHALL BE LOADED TO FAILURE OR 2.5 TIMES THE DESIGN CAPACITY, WHICHEVER OCCURS FIRST. AT CONTRACTOR'S OPTION, ADDITIONAL TEST PILES MAY BE INSTALLED TO OPTIMIZE PILE INSTALL LENGTH. ALL TEST SHALL BE OBSERVED BY A REGISTERED GEOTECHNICAL ENGINEER IN THE STATE OF NORTH CAROLINA.

EPS GEOFOAM NOTES

1. WHERE INDICATED IN DETAILS, RETAINING WALLS SHALL BE BACKFILLED USING EXPANDED POLYSTYRENE (EPS) GEOFOAM.
2. EPS GEOFOAM SHALL BE PLACED DIRECTLY BEHIND RETAINING WALL AND STEPPED UP AT 1:1 (SEE DETAILS).
3. EPS GEOFOAM SHALL MEET REQUIREMENTS OF ASTM D6817 TYPE EPS19 AT TYPICAL APPLICATIONS AND TYPE EPS39 ON SOUTH ELEVATION OR WHERE SUBJECT TO TRUCK LOADING. EPS GEOFOAM SHALL BE
4. PROVIDE 6" MINIMUM FREE-DRAINING, SAND PAD/LEVELING COARSE BELOW FOAM. INSTALL EPS GEOFOAM PER MANUFACTURER'S RECOMMENDATIONS.
5. EPS GEOFOAM SHALL BE BALLASTED IN ITS FINAL CONDITION BY PLACING A MINIMUM OF 4 FEET OF FREE-DRAINING, GRANULAR FILL (125 PCF MIN). DIRECTLY BELOW SLAB-ON-GRADE THE BALLAST SHALL CONSIST OF 12 INCHES OF NO. 57 CRUSHED STONE. WHERE EXPOSED TO TRUCK LOADING, INSTALL 4" THICK CIP DISTRIBUTION SLAB.
6. A CONTINUOUS FOUNDATION DRAIN SURROUNDED BY NO 57 STONE, WRAPPED IN FILTER FABRIC SHALL BE INSTALLED AT THE BASE OF ALL FOUNDATION WALLS TO PREVENT BUILD-UP OF HYDROSTATIC PRESSURE AND BUOYANCY FORCES.

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Revisions

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FOUNDATION PLAN

Sheet

D-S-100

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