GENERAL REQUIREMENTS

REFER TO SUBSEQUENT PLAN AND DETAIL NOTES FOR VARIATIONS AND REQUIREMENTS SPECIFIC TO REFERENCED PROJECT.

NOTES ON DRAWINGS TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES.

DESIGN CRITERIA

BUILDING CODE CONFORMANCE (MEETS OR EXCEEDS REQUIREMENTS):

2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL RESIDENTIAL CODE (IRC)
2018 NORTH CAROLINA BUILDING CODE (NCBC)
2018 NORTH CAROLINA RESIDENTIAL CODE (NCRC)

DEAD LOADS:

ROOF DEAD LOAD	15 PSF
FLOOR DEAD LOAD	15 PSF
WOOD WALL DEAD LOAD	12 PSF
INTERIOR WOOD WALL DEAD LOAD	9 PSF
CMU WALL DEAD LOAD (STUCCO)	89 PSF
CONCRETE	150 PCF

LIVE LOADS:

ROOF LIVE LOAD	20 PSF
FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF

NOTICE TO CONTRACTOR
APPROVED
08/13/2021
Harnett COUNTY NORTH CAROLINA

FSI PUSH PIERS

MATERIALS:
BRACKET PLATES – ASTM A36
(MIN YIELD STRESS, Fy = 36 KSI / MIN TENSILE STRESS, Fu = 58 KSI)
PIER TUBES – ASTM A500 GRADE B OR C
(MIN YIELD STRESS, Fy = 50 KSI / MIN TENSILE STRESS, Fu = 55 KSI)
EXTERNAL SLEEVE – ASTM A500 GRADE B
(MIN YIELD STRESS, Fy = 50 KSI / MIN TENSILE STRESS, Fu = 62 KSI)
PIER CAP – ASTM A529 GRADE 50
(MIN YIELD STRESS, Fy = 50 KSI / MIN TENSILE STRESS, Fu = 65 KSI)
COIL ROD – ASTM A193 GRADE B7
(MIN YIELD STRESS, Fy = 105 KSI / MIN TENSILE STRESS, Fu = 125 KSI)
STEEL ANGLE SHAPES – ASTM A36
(MIN YIELD STRESS, Fy = 36 KSI / MIN TENSILE STRESS, Fu = 58 KSI)

WELDING NOTES:
CONFORM TO AWS D1.1. WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS REQUIREMENTS. USE E70 ELECTRODES OF TYPE REQUIRED FOR MATERIALS TO BE WELDED.

CORROSION PROTECTION:
SACRIFICIAL DESIGN THICKNESS – CAPACITIES INCLUDE A SCHEDULED LOSS IN STEEL THICKNESS DUE TO CORROSION FOR BLACK, UNCOATED STEEL. ANCHORS ARE DESIGNED FOR 50-YEAR SCHEDULED SACRIFICIAL THICKNESS LOSS IN ACCORDANCE WITH ICC-ES AC358.

INSTALLATION:
SYSTEM TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS. MINIMUM INSTALLATION PRESSURE IS TO BE DETERMINED BY THE FOLLOWING EQUATION:

PUSH PIER INSTALLATION PRESSURE (PSI): [DESIGN LOAD] X 2 / [AREA OF HYDRAULIC RAM].

MINIMUM INSTALLATION DEPTH IS 10'-0"± UNO.

NOTIFY ENGINEER IF MINIMUM INSTALLATION CONDITIONS CANNOT BE ACHIEVED.

FSI PUSH PIERS (CONT.)

EXISTING UTILITY LINES:
CONTRACTOR TO REPAIR UTILITY LINES THAT MAY BE DAMAGED DURING INSTALLATION.

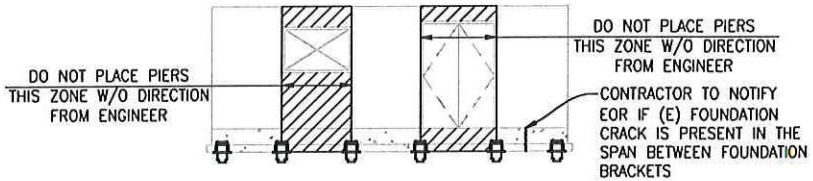
PUSH PIER SPLICING:
PILES ARE TO BE GRAVITY SPLICED WITH FITTING COUPLERS. BUILDING WEIGHT WILL ENSURE JOINTS DO NOT SEPARATE.

TESTING & INSPECTION

SPECIAL INSPECTION & TESTING PER REVIEWING JURISDICTION.

NORTH CAROLINA PROFESSIONAL SEAL 051160 ENGINEER JESSE L. DEAN

EXPIRES: 12/31/21



NO PIER PLACEMENT ZONE

SCALE: NTS

1

SFA Design Group, LLC

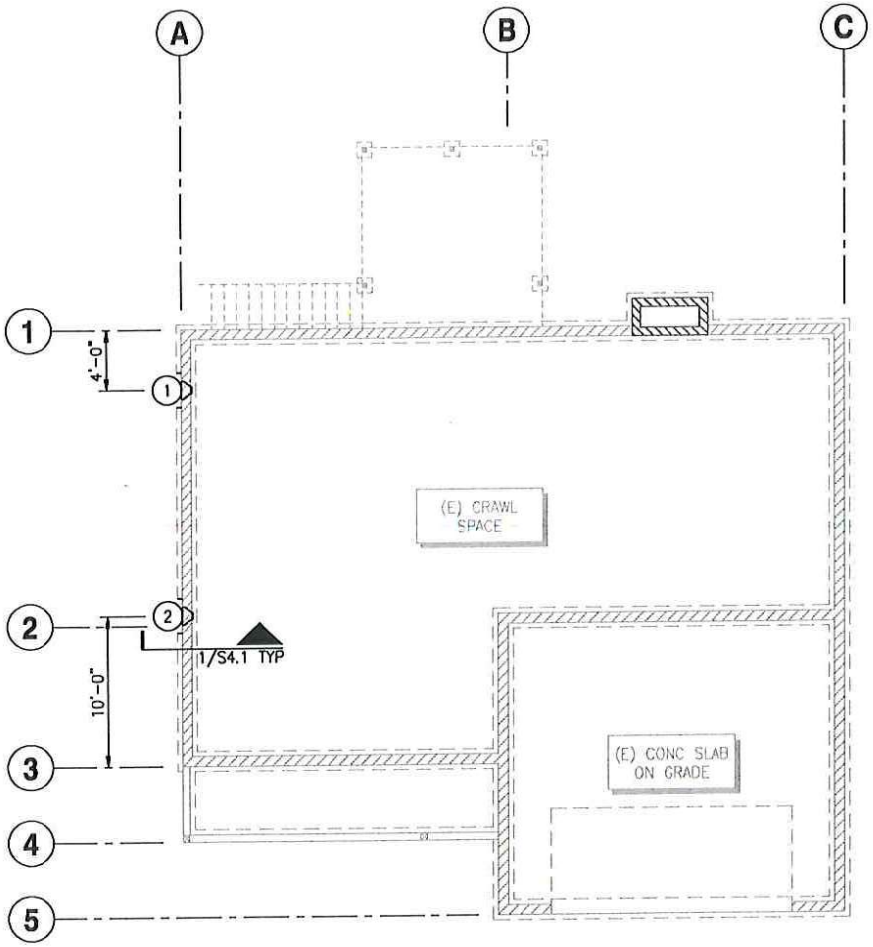
OLOWOSOGA RESIDENCE UNDERPINNING
62 ANGEL OAK DR
BUNNLEVEL, NC 28323

GENERAL NOTES

REVISIONS

PROJECT NO: SE21-237
DESIGNED BY: CAF
DRAWN BY: CAF
CHECKED BY: JLD
DATE: 07-22-2021

SHEET NO: S1.1



(E) FOUNDATION/ (N) PIER LAYOUT PLAN

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

N

PLAN

NORTH CAROLINA PROFESSIONAL SEAL 051160 ENGINEER JESSE L. DEAL

EXPIRES: 12/31/21

(E) FOUNDATION/(N) PIER LAYOUT PLAN NOTES:

1. REFERENCE S1.1 FOR GENERAL REQUIREMENTS
2. CONTRACTOR TO NOTIFY ENGINEER OF RECORD OF DISCREPANCIES BETWEEN FIELD CONDITIONS & THOSE SHOWN IN THESE DOCUMENTS PRIOR TO WORK TYP
3. INDICATES (E) CMU STEMWALL ON (E) CONC FOOTING (CONTRACTOR TO VERIFY 8"Wx3'-0"H (E) CMU STEMWALL AND 1'-4"Wx8"DP (E) CONC FOOTING MIN TYP (NOTIFY ENGINEER OF RECORD IF FIELD CONDITIONS DIFFER IN THE AREA OF WORK))
4. X/SX.X SECTION CUT - DETAIL NUMBER/SHEET NUMBER
5. (#) INDICATES LOCATION OF FSI 288 PUSH PIER W/ FSI FS288BL FOUNDATION BRACKET PER DETAILS ON S4.1 ((2) TOTAL)

   PUSH PIER INSTALLATION NOTES:
   - MAX LOAD TO ANCHOR = 13,316 LBS
   - 2.875"ø PIPE PILE W/ 0.165" THICK WALL
   - 3.5"øx48" LONG PIPE SLEEVE W/ 0.216" WALL
   - MINIMUM 10'-0" INSTALLATION DEPTH
   - MINIMUM 2,800 PSI INSTALLATION PRESSURE
   - MINIMUM 1/4" FOUNDATION LIFT DURING INSTALLATION
6. PIER SPACING SHALL BE AS INDICATED ON PLAN
7. CONTRACTOR TO NOTIFY ENGINEER OF RECORD IF (E) FOUNDATION CRACK IS PRESENT IN THE SPAN BETWEEN FOUNDATION BRACKETS
8. ALL CONSTRUCTION MATERIALS IN THESE DOCUMENTS ARE (N) UNO

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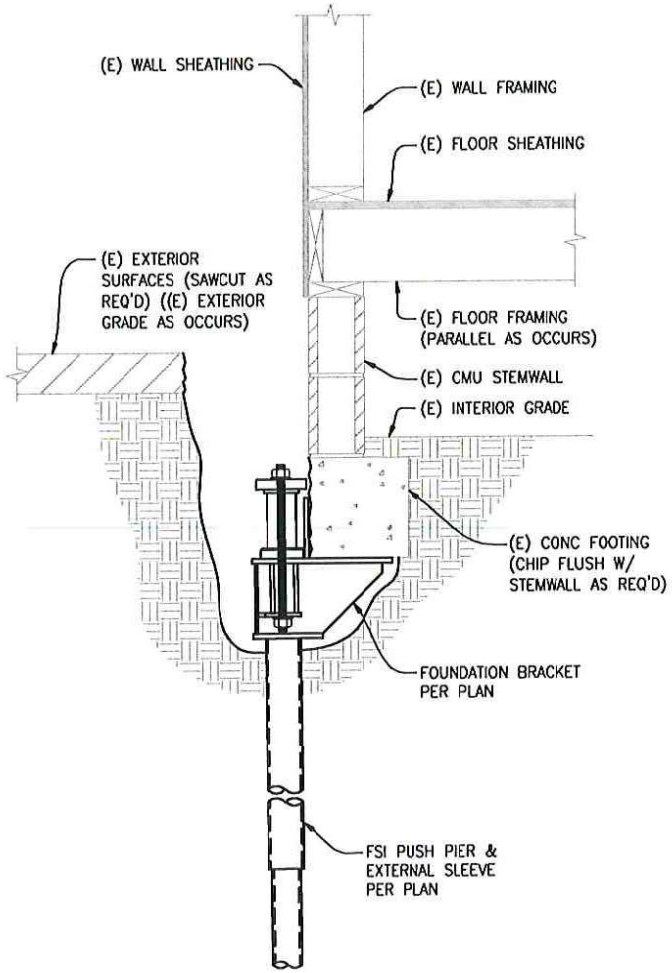
(E) FOUNDATION/ (N) PIER LAYOUT PLAN

REVISIONS

PROJECT NO: SE21-237
DESIGNED BY: CAF
DRAWN BY: CAF
CHECKED BY: JLD
DATE: 07-22-2021

SHEET NO: S2.1



NOTE:
REF PLAN FOR LAYOUT & INSTALLATION REQ'S

(N) PUSH PIER TO (E) FOUNDATION DETAIL

SCALE: 1"=1'-0"

1

NORTH CAROLINA PROFESSIONAL SEAL 051166 ENGINEER JESSE L. DEAL

EXPIRES: 12/31/21

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BUNNLEVEL, NC 28323

PIER DETAILS

REVISIONS

PROJECT NO: SE21-237
DESIGNED BY: CAF
DRAWN BY: CAF
CHECKED BY: JLD
DATE: 07-22-2021

SHEET NO: S4.1