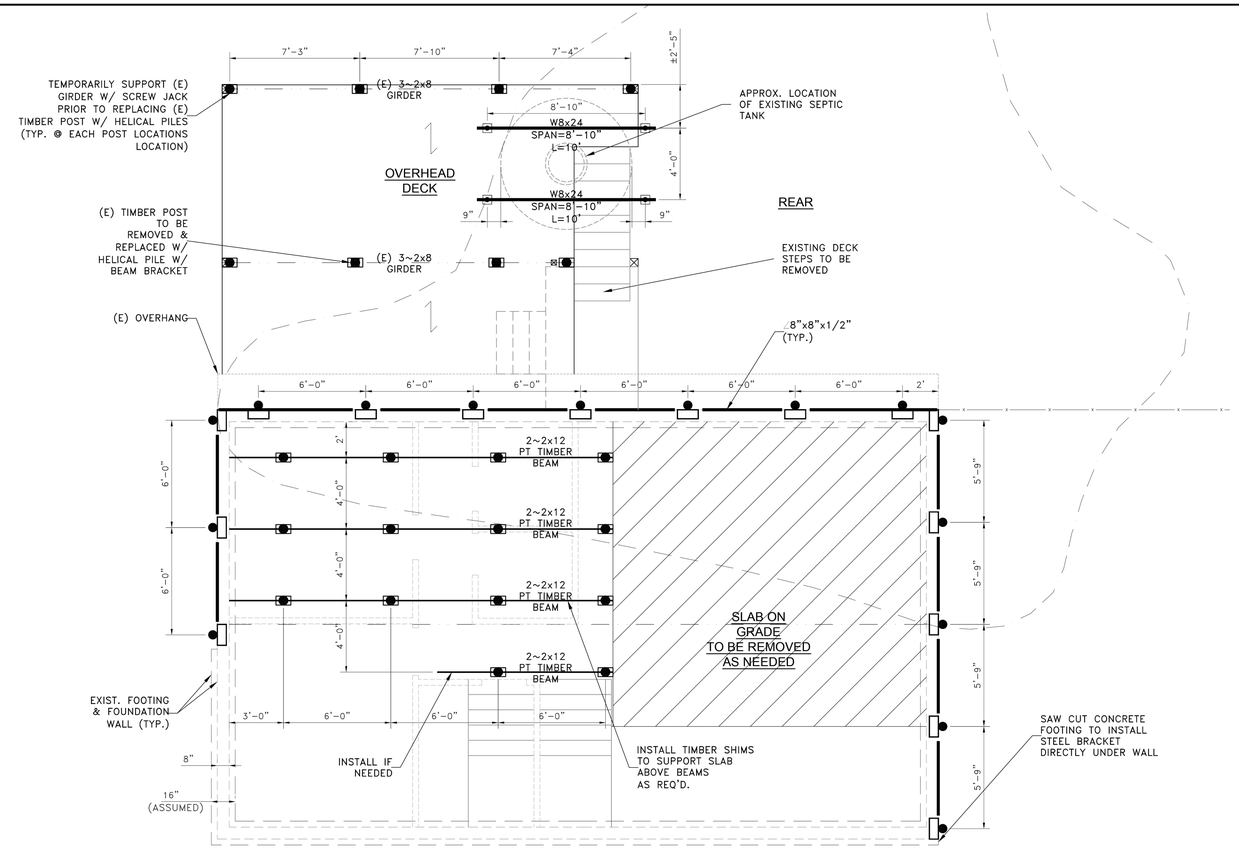
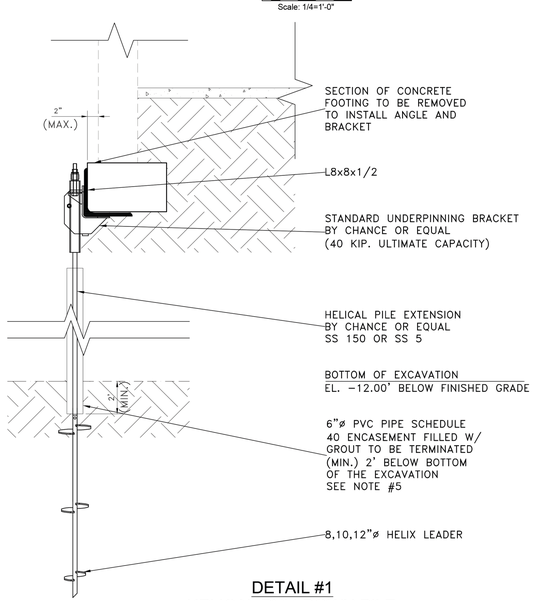


FRONT

PLAN VIEW

1 0 4
Scale: 1/4=1'-0"



DETAIL #1
HELICAL PULLDOWN PILE

Scale: NTS

LEGEND

- HELICAL PILE WITH UNDERPINNING BRACKET BY CHANCE OR EQUAL
- HELICAL PILE WITH NEW CONSTRUCTION BRACKET by CHANCE OR EQUAL
- HELICAL PILE WITH BEAM BRACKET by CHANCE OR EQUAL
- SAW CUT AND REMOVE SECTION OF CONCRETE SLAB AS NEEDED

ESTIMATE ONLY

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE TO FOLLOW OSHA 1926.652 "SPECIFIC EXCAVATION REQUIREMENT". ALL SIDE SLOPES AND EXCAVATION PROTECTION SHOULD MEET THIS STANDARD REQUIREMENT.
3. CONTRACTOR IS RESPONSIBLE FOR MEANS AND SEQUENCE OF CONSTRUCTION.
4. PROPOSED CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH THE 2015 IBC/ NEW JERSEY EDITION.
5. MAXIMUM DEPTH OF EXCAVATION 12' BELOW FINISHED GRADE.
6. CONTRACTOR IS TO INSTALL AND FOLLOW ALL ASPECTS OF THE DESIGN AS SHOWN ON PLANS. ACTUAL LIMIT OF REMEDIATION AS DETERMINED IN FIELD DURING THE DEMOLITION PHASE MAY PROVE TO BE LARGER THAN THE AREA ANTICIPATED. THE ENGINEER MUST BE CONTACTED AND ANY CHANGES TO BE APPROVED IN WRITING PRIOR TO PERFORMING ADDITIONAL WORK OUTSIDE THE SCOPE OF THIS PLAN OR THIS PLAN WILL BE CONSIDERED VOID.
7. PLAN NOT VALID UNLESS THE SEAL OF THE ENGINEER IS AFFIXED.
8. THE CONTRACTORS ARE REQUIRED TO NOTIFY UNDERGROUND LOCATION SERVICES AT 1-800-272-1000 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION WORK.
9. DELINEATION MAP SHOWING LIMITS OF CONTAMINATION WERE PROVIDED BY: "PHOENIX CONSULTING, LLC" DATED: 2/20/19
10. THIS DESIGN PROVIDES MEANS OF STRUCTURAL SUPPORT FOR A HOUSE/BUILDING TO ALLOW FOR SAFE SOIL REMEDIATION. KLUK CONSULTANTS, LLC HAS NO CONTROL OVER THE MEANS OF CONSTRUCTION AND THEREFORE WE CANNOT GUARANTEE THAT SOME SMALL NON-STRUCTURAL CRACKS MAY DEVELOP WITHIN THE SUPPORTED STRUCTURE OR ADJACENT BUILDINGS. IT IS OUR RECOMMENDATION THAT A THOROUGH PHOTOGRAPHIC DOCUMENTATION IS OBTAINED PRIOR TO ANY STRUCTURAL SUPPORT WORK TAKING PLACE AT THE PROJECT SITE.
11. SOME LOCAL CONSTRUCTION OFFICIALS ENFORCE UNIFORM CONSTRUCTION CODE 5:23-2.18 (B) 1I (1) WHICH REQUIRES THAT THE PROFESSIONAL ENGINEER BE PRESENT DURING ALL HELICAL PILE INSTALLATIONS. AT THE TIME OF THE CONSTRUCTION PERMIT APPLICATION PLEASE CHECK WITH THE LOCAL CONSTRUCTION OFFICE IF THEY REQUIRE THESE INSPECTIONS.

HELICAL PILE NOTES

12. HELICAL PILES BY "CHANCE" OR EQUAL SHOULD BE USED AS DESIGNED BY ENGINEER USING THE TOTAL LENGTH, SIZE AND TYPE OF SOIL WITH HELICAL LOAD SECTIONS AND EXTENSIONS AS REQUIRED. ONE (1) HELICAL PULL DOWN PILE WILL SUPPORT ULTIMATE LOAD OF 20 kips COMPRESSION. EACH VERTICAL PILE WILL NOT RESIST A LATERAL FORCE.
13. SPACING OF HELICAL PILES IS AS SHOWN ON DRAWINGS.
14. THIS DESIGN WAS PREPARED WITHOUT THE BENEFIT OF A GEOTECHNICAL REPORT. THE ISSUANCE OF A BUILDING PERMIT SHALL BE CONSIDERED ACCEPTANCE BY THE CONSTRUCTION OFFICIAL THAT A GEOTECHNICAL INVESTIGATION IS NOT REQUIRED.
15. GROUT – A NEAT MIX OF PORTLAND CEMENT (TYPE I/II) CONFORMING TO ASTM C150 WITH WATER CEMENT RATIO OF APPROXIMATELY 0.45. THE MINIMUM 28 DAY COMPRESSION STRENGTH OF THE GROUT SHALL BE 5,000 PSI. USE POTABLE WATER FOR GROUT PRODUCTION TO REDUCE THE DANGER OF REINFORCEMENT CORROSION.
16. L8x8x1/2 SHALL BE INSTALLED UNDER FOOTING BETWEEN PILES. ALL STEEL SHALL BE A36.
17. USE SIKAGROUT 212 OR EQUAL TO FILL VOIDS BETWEEN BOTTOM OF FOOTING AND L8x8 ANGLE.
18. THIS PLAN IS TO BE USED FOR FOOTING AND FOUNDATION SUPPORT ONLY, AND IS NOT INTENDED FOR ANY OTHER USE.
19. THE CONTRACTOR SHOULD INSPECT THE EXISTING FOUNDATION FOR ANY CRACKS AND VARIATION IN THE THICKNESS OR POOR QUALITY OF THE CONCRETE. IF THESE CONDITIONS ARE OBSERVED CONTACT ENGINEER FOR CONSULTATION.
20. THE CONTRACTOR SELECTED TO INSTALL HELICAL PILES MUST HAVE AT LEAST 3 YEARS OF PROVEN EXPERIENCE IN THIS TYPE OF INSTALLATION.
21. BOTTOM OF HELICAL PILES MUST BE AT LEAST 7' BELOW THE BOTTOM OF EXCAVATION.

TIMBER BEAM NOTES

22. ALL STRUCTURAL LUMBER SHALL BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S CONSTRUCTION MANUAL.
23. ALL TIMBER BEAMS SHALL EXTERIOR STRUCTURAL LUMBER; PRESSURE TREATED; GRADE NO. 2; STRESS GRADE Fb = 1,200 PSI, E = 1,400,000 PSI MINIMUM. MOISTURE CONTENT FOR ALL FRAMING SHALL BE 19
24. ALL EXTERIOR STRUCTURAL LUMBER SHALL BE PRESSURE TREATED DOUGLAS FIR OR SOUTHERN YELLOW PINE OR BETTER RED CEDAR (WHERE INDICATED ON THE DRAWINGS). TREATED LUMBER SHALL BEAR AWPA MARKING. ALL TREATED LUMBER SHALL BE 0.25 POUNDS CUBIC FOOT OF WOOD MINIMUM. ALL LUMBER SHALL BE KILN-DRIED WITH A MAXIMUM MOISTURE CONTENT OF 15%

DATE	REVISION

KRIS KLUK, PH.D., P.E.

DATE: March 12, 2019

NJ Professional Engineer No. 34089

FOUNDATION SUPPORT

REMEDIATION EXCAVATION PROJECT

DATE: 3/12/19	SCALE : As Shown	DRAWN BY: AJD	SHEET NO. : 1 of 1