4/10/2026

Client: Transformation LLC/Chris Wilkey

378 NW Clubview Cir, Lake City, FL, 32055

Engineer: Philip W. Bullock Jr., M.E., M.B.A., P.E. (FL)

FBPE #99143

Noble Engineering Services, LLC (FL) (Subconsultant to Solid Foundations)

P: (832) 210-1397

E: engineering@noble-pi.com

In partnership with:

Columbia County Building Department — Plans Reviewed for Code Compliance — State of Florida

Representative: Jimbo Wills

Solid Foundations

P: (386) 288-3240

E: jimmie@solidfoundations.com

Reviewer: Amanda Bullock

Noble Engineering Services, LLC

(832) 551-1397 :P

engineering@noble-pi.com :E

Design Analysis

Report V1.0

1.0 - Analysis

The load demands for the proposed helical pile system to support and stabilize the home were determined. The specific pile locations and type are identified in Exhibit A. Calculated support loads at each location, including applicable dead and live loads, are summarized in the attached load table labeled Appendix A. Based on the required load per pile, the Digga 12ALS driver operating at a minimum gauge pressure of 2200 psi will achieve an allowable pile capacity of 83530 lbs, which exceeds the maximum calculated load of 11520 lbs at a safety factor of 2.0. Based on the analysis, installation shall achieve both the above calculated psi and a minimum pile depth of ten (10') feet which is approved and certified as meeting the requirements of the Florida Building Code 2023, 8th edition, and is good engineering practice.

The first pile installed on site will be considered a test pile. If the minimum psi is not achieved within 25' or if voids or soft soil conditions are found, the contractor shall stop the installation and notify the engineer for re-evaluation. At completion of the installation, Noble Engineering Services LLC shall be supplied with a detailed installation log, including final location, depth, and psi, of each pile for evaluation and completion of the "As-Built" report."

General Notes:

1. The helical piles specified in this design meet or exceed the minimum capacity requirements for the applied loads; see design calculations for live and dead load assumptions with tributary areas.
2. This design is based on the provided plans and information provided by the inspector/contractor and/or owner. A full structural assessment of the building was not performed.
3. The system provides supplemental stabilization only; additional repairs may be required in other areas not included within contractor's scope of work.
4. This design is based on the estimated loads of the structure place on shallow soils under the structure. No deep soils geotechnical testing information was provided for this design.
5. All piles and components shall be installed in accordance with ICC-ES AC358 requirements.
6. This design does not address potential sinkhole activity as defined under Florida Statute § 627.706.
7. In the event stabilization results in any void below foundation, chemical grout should be applied to provide continuous support below concrete foundation and/or slab. Contractor shall use caution as any lift could damage below slab utilities.
8. The contractor shall document and certify any design changes (with reason for field changes) on the installation log and submit redline drawings with the final as-built report.

2.0 - Limitations

This report has been assembled by a team, each member bringing specialized expertise to ensure a comprehensive evaluation within the scope of our project. The team comprises a field-experienced contractor, responsible for conducting thorough on-site examinations; a reviewer, who reviews and consolidates the findings; and a skilled engineer, who applies a desktop evaluation and calculations to the field data collected. The structuring of our team and the distribution of roles have been strategically designed to optimize both the quality and cost-efficiency of the provided services. The team may (or may not) be comprised of individuals working for different companies.

Verification of previous permitted construction activities through the correct jurisdictional authority is not part of the scope of this report. Photos here of permit-related documents and stickers are for informational purposes only.

3.0 - Liability

The contents of this report supersede any verbal communication regarding the subject engineering issue during or after the inspection. This report was prepared for the exclusive use of the client listed above. There is no obligation or contractual relationship to any party other than our client and their agents in regards to the subject property. The opinions and recommendations contained in this report are based on the visual observation of the then current conditions of the structure and the knowledge and experience of the inspector/engineer.

The company is not responsible for knowledge of specific subsurface conditions at the subject property. This report is only an engineering statement of opinion and report of findings based on the information available at the time of inspection. It does not provide any guarantee or warranty to the current state of the structure. The report was based on the information that was available at the time. Should additional information become available, the engineer/inspector reserves the right to determine the impact, if any, the new information may have on the opinions contained herein and revise conclusions and opinions as necessary and warranted.

Engineer is not responsible for concealed conditions where a visual observation was not possible or any other areas that are not readily available to the engineer or contractor for evaluation during the site visit. The evaluation was limited to visual observations and areas not visible, accessible, or hidden behind furniture and appliances were not included in the evaluation. The evaluation did not include any soil sampling or testing, nor any assessment of the plumbing or auxiliary structures and no implication is made on the compliance or non-compliance of the structure with old or current building codes. No verification was made of the existing concrete strength, thickness, location of interior grade beams, reinforcement, nor capacity to support any load.

Limits of liability for any claims with respect to this report is limited to the fees paid for services and anyone relying on the content of this report agrees to indemnify the company for all costs exceeding the fee paid.

Engineer's Seal:

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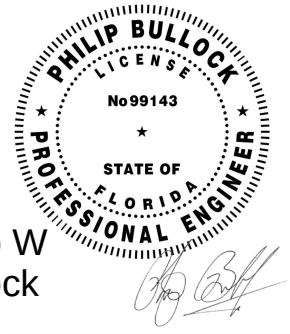

This item has been digitally signed and sealed by Philip W. Bullock Jr., P.E. on the date adjacent to the seal.

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Attachments:

√ - Provided	Exhibit A	Proposed Helical Pile Location
√ - Provided	Exhibit B	Helical Pile Detail
√ - Provided	Appendix A	Total Load Calculations
√ - Provided	Appendix B	Pile Installer/Driver Product Specifications
√ - Provided	Appendix C	Site Photos

EXHIBIT A

Proposed Helical Pile Location

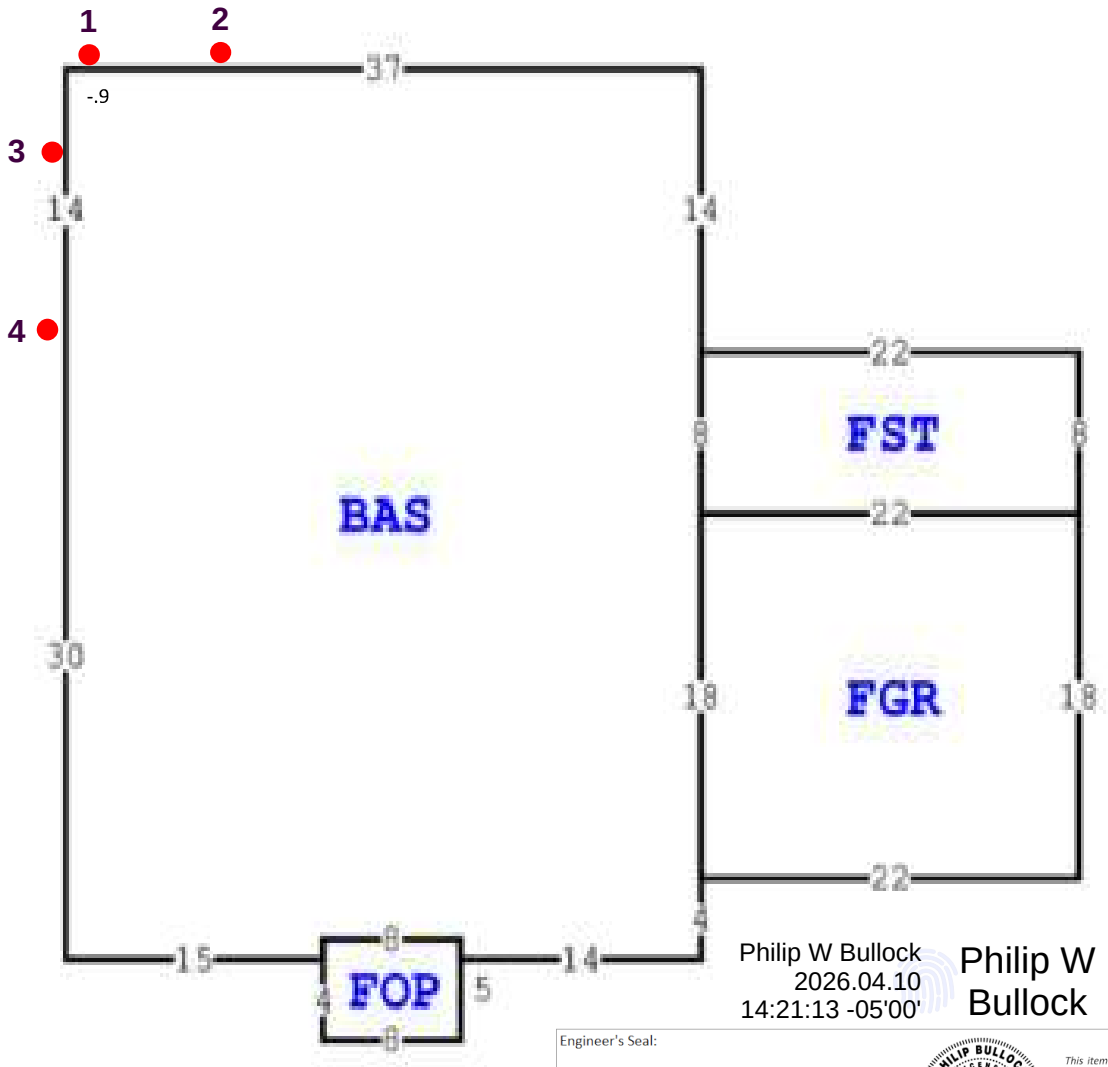
378 NW Clubview Cir, Lake City, FL, 32055

Solid Foundations
1910 SW Main Blvd
Lake City, FL 32025
855-227-0300
www.solidfoundations.com

SF Representative: Jimbo Willis
Cell: 386-288-3240
Email: Jimmie@solidfoundations.com

CONTRACT DATE: 3/31/2026
SUBMITTED TO: Transformation LLC (Chris Wilkey)
ADDRESS: 378 NW Clubview Cir.

EMAIL: twilkey08@outlook.com
Phone: 386-365-8994 (Chris) 865-755-1610 James



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PHILIP BULLOCK LICENSE No99143 STATE OF FLORIDA PROFESSIONAL ENGINEER

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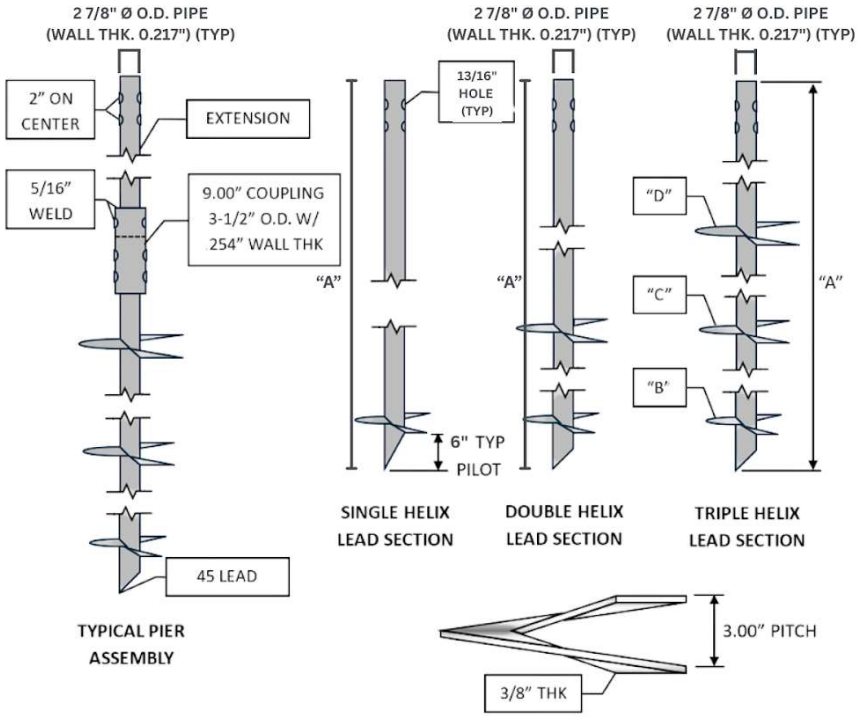
Push Pier Model 300: ●	Interior Pier: ●	R&R Concrete ■
Push Pier Model 250: ●	Low Profile Bracket: ●	NCFI-24-010 ■
Helical Pier: ●	Porch Bracket: ●	Windows/Doors: ■
Crawl Space Pier: ●	4x6 Wood Beam: ▭	Floor Joist: ■

EXHIBIT B

378 NW Clubview Cir, Lake City, FL, 32055



NOTES:

1. NEW CONSTRUCTION BRACKET, REPAIR BRACKET, SHAFT COUPLER, LEAD SHAFTS, AND EXTENSIONS HAVE A NOMINAL WALL THICKNESS.
2. HELICAL PILE LEAD SHAFTS AND EXTENSIONS ARE CARBON STEEL PILES THAT CONFORM TO API 5 CT L80. MINIMUM YIELD STRENGTH=80 KSI.
3. SHAFT COUPLERS ARE CARBON STEEL PIPES THAT CONFORM TO API 5 CT L80. MINIMUM YIELD STRENGTH= 80 KSI.
4. HELIX PLATES ARE CARBON STEEL PLATES CONFORMING TO ASTM A572, GRADE 50. MINIMUM YIELD STRENGTH=68 KSI.
5. NOMINAL SPACING BETWEEN HELICAL PLATES IS THREE TIMES THE DIAMETER OF THE PRECEDING HELIX PLATE.
6. COUPLING BOLTS: DIAMETER X 4 LONG HEX BOLT CONFORMING TO SAE J429 GRADE 8 WITH MATCHING HEX NUTS CONFORMING TO SAE J995 GRADE 8.
7. ALL WELDING TO BE DONE BY WELDERS CERTIFIED UNDER SECTION 4 OF THE AWS D1.1/D1, 1M STRUCTURAL WELDING CODE-STEEL.

CAPACITIES:

TORQUE STRENGTH RATING = 9,281 FT-LBS
ULTIMATE CAPCITY (TENSION/COMP.) = 83.53 KIPS
BASEDON A TORQUE FACTOR (Kt) = 9

LEADS	"A"	"B"	"C"	"D"
Part No.	in.	in.	in.	in.
L5 NG 8	60	8		
L7 NG 10	84	10		
L5 NG 10 12	60	8	10	
L7 NG 10 12	84	10	12	
L7 NG 8 10 12	84	8	10	12

	NAME	DATE		
DRAWN	KMF	4/10/26		
CHECKED				
ENGR. APPR.	PWB	4/10/26	TITLE:	
MFG. APPR.			**DETAIL - HELICAL PILE (83.53 KIPS CAPACITY)**	
Q.A.				

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONALS±1/16
ANGULAR: MACH± .5
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ± .005

COMMENTS:	PART NO:	SIZE: B		REV:	-
MATERIAL:	WEIGHT:	Scale: NTS		SHEET NO:	1 OF 1

INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5

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Appendix A

Total Load Calculations

378 NW Clubview Cir, Lake City, FL, 32055

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Transformation LLC/Chris Wilkey

Appendix A

TOTAL LOAD ON SUPPORT

Total Load = (Dead Load + Live Load) x (Tributary Length x Tributary Width)

Support #	Assumed Live Load	Assumed Dead Load	Tributary Length	Tributary Width	Total Load
L-R & T-B	psf	psf	ft	ft	lbs
1	70	20	5.0	8.0	3,600
2	70	20	8.0	8.0	5,760
3	70	20	6.0	8.0	4,320
4	70	20	8.0	8.0	5,760

MAXIMUM TOTAL LOAD ON PILE	**5,760 lbs**
PILE LEAD ULTIMATE CAPACITY IN TENSION OR COMPRESSION	**83,530 lbs**

TOTAL LOAD ON PILE WITH 2.0 SAFETY FACTOR	11,520 lbs
TORQUE CORRELATION FACTOR FOR 2.875" (OD) ROUND SHAFT	9

PILE TORQUE RATING	**9,281 ft-lbs**
REQUIRED OUTPUT TORQUE BY PILE DRIVER	**8,640 ft-lbs**
DIGGA 12ALS OUTPUT TORQUE	**9,126 ft-lbs**

DIGGA 12ALS OUTPUT TORQUE (PRESSURE)	**2,200 psi**

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Appendix B

Pile Installer/Driver Product Specifications

378 NW Clubview Cir, Lake City, FL, 32055

PLANETARY ANCHOR DRIVES
9,000 FT LBS - 12,000 FT LBS

Developed in conjunction with the leading Screw Anchor/Pile installers around the world. The only true Anchor Drives available, designed & manufactured inhouse by Digga, specifically for the rigours of the application. Host machine operates in the most efficient HP range, minimizing wear & tear, to optimize performance & ensure highest returns.

FEATURES

- High efficiency EATON/DIGGA bell geroler hydraulic motors with integrated Pressure Relief Valve ensures max volumetric effeciency for consistent & efficient pile installation throughout your working day
- More linear feet in the ground = greater returns
- ECV (Energy Control Valve) to prevent rapid decompression of oil, caused by the reverse energy created by Pile Kick-back
- Engineered hood & ears for maximum strength
- Extreme duty shaft retaining system
- No Case Drain required
- 3yr Gearbox & 2yr Motor Warranty

Need Torque from a lower pressure? No problem.

Two pressure series are available to suit your requirements.
Standard pressure series, for machines with 3500 PSI. Low Pressure series, for machines with 3000 PSI

PREMIUM ANCHOR DRIVES

	STANDARD PRESSURE - 3500 PSI		LOW PRESSURE - 3000 PSI	
MODEL	**9ADS**	**12ADS**	**9ALS**	**12ALS**
Nominal Torque (FT LBS)	9,112	11,542	9,893	12,445
Max Pressure - Do Not Exceed	3500psi @ 29gpm	3500psi @ 29gpm	3000psi @ 29gpm	3000psi @ 29gpm
Max Flow - Do Not Exceed	55gpm @ 1800psi	55gpm @ 1800psi	55gpm @ 1800psi	55gpm @ 1800psi
Max Horse Power	60	60	60	60
Pressure Relief Valve	Included	Included	Included	Included
Energy Control Valve	Included	Included	Included	Included
Standard Output Shaft	2.5" Hex	2.5" Hex	2.5" Hex	2.5" Hex
Weight (lbs)	351	351	351	351
Overall Length (in)	37.2"	37.2"	37.2"	37.2"
Diameter (in)	11.4"	11.4"	11.4"	11.4"

OPTIONAL EXTRAS

- Ryno Piling cradle
- Drive Linkages
- Excavator Mounts/Hitch
- Diggalign - Pile/Auger Alignment system
- Torque Monitoring - Pressure Differential Guage
- Torque Logic - Pile Alignment / Data Logging system

PLANETARY ANCHOR DRIVES
9,000 FT LBS - 12,000 FT LBS

OUTPUT SPEED & TORQUE

9ADS - STANDARD PRESSURE - 3500 PSI				12ADS - STANDARD PRESSURE - 3500 PSI			
OUTPUT SPEED		OUTPUT TORQUE		OUTPUT SPEED		OUTPUT TORQUE	
GPM	RPM	PSI	FT-LBS	GPM	RPM	PSI	FT-LBS
8	9	1,500	3,905	8	7	1,500	4,945
10	12	1,700	4,425	10	9	1,700	5,605
12	14	1,900	4,945	12	11	1,900	6,265
14	16	2,100	5,465	14	13	2,100	6,925
16	19	2,300	5,990	16	15	2,300	7,585
18	21	2,500	6,510	18	17	2,500	8,245
20	24	2,700	7,030	20	19	2,700	8,905
24	26	2,900	7,550	24	20	2,900	9,565
26	28	3,200	8,070	26	22	3,200	10,225
28	31	3,300	8,590	28	24	3,300	10,880
30	33	3,500	9,100	30	26	3,500	11,500
32	38			32	30		
34	40			34	32		
36	42			36	33		
38	45			38	35		
40	47			40	37		
42	49			42	39		
44	52			44	41		
46	54			46	43		

9ALS - LOW PRESSURE - 3000 PSI				12ALS - LOW PRESSURE - 3000 PSI			
OUTPUT SPEED		OUTPUT TORQUE		OUTPUT SPEED		OUTPUT TORQUE	
GPM	RPM	PSI	FT-LBS	GPM	RPM	PSI	FT-LBS
8	7	1 000	3 298	8	6	1 000	4 148
12	11	1 200	3 957	12	9	1 200	4 978
16	15	1 400	4 617	16	12	1 400	5 808
20	19	1 600	5 276	20	15	1 600	6 637
24	22	1 800	5 936	24	18	1 800	7 467
28	26	2 000	6 596	28	21	2 000	8 296
32	30	2 200	7 255	32	24	2 200	9 126
36	33	2 400	7 915	36	27	2 400	9 956
40	37	2 600	8 574	40	30	2 600	10 785
44	41	2 800	9 234	44	33	2 800	11 615
48	42	3 000	9 893	48	35	3 000	12 445

Output speed and torque specifications are THEORETICAL. Speed and torque output are dependent on the overall system efficiencies associated with the prime movers hydraulic system. This document should be used for information and comparative purposes only. When determining criteria, & application specific information is required, please contact DIGGA.

Appendix C

Site Photos

378 NW Clubview Cir, Lake City, FL, 32055

SITE PHOTOS

Address: 378 Clubview Cir, Lake City, FL, 32055

Client: Transformation LLC/Chris Wilkey

Exterior Photos