Cool and Cobb Engineering Company

Date: 5/23/2023

Job: Gwen Hawkins

Location: 6855 Elim Church Rd.
Ft. White Fl 32038

PUSH PIER DESIGN ANALYSIS

The load requirements for the piers designed to assist in supporting the identified areas of the subject residence were determined. The selected pier locations and the specific piling are identified on the Pier Identification and Location Plan attached. The calculated total loads on the piers in the specific location, including both dead and live loads are documented in the attached table which is designated as Attachment "A". Based on the total load requirements for each of these piers, the push pier driver is to be employed. The push pier driver should be employed with a calculated load of _18,000_ lbs., which will provide pier capacity, including the 2 to 1 safety factor, of _18,000_ lbs. which is greater than the maximum calculated total load of _9,000_ lbs. which occurs on the pier identified as no. __1__. Based on this analysis, the use of the push pier driver for the push piers with a specific load of _9,000_ lbs. and a minimum depth of 15' is approved and certified as meeting all the requirements of the Florida Building Code 2020 7th Edition, and good engineering practice. This is not to be the primary support structure, but a supplement support to assist in support of the weight of the structure, which will reduce the total pressure on the existing soils. After completion of installation, Cool and Cobb Engineering Company shall be supplied with a drilling log of the location and depths of each pier installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. All piers to be installed in accordance with ICC ES AC 358
2. A log of each pier to be kept by Contractor noting depth for each pile.
3. Piers installed less than 48" apart are to be battered 10° away from each other.
4. All pile calculations are based on a maximum spacing of 6'-0".
5. This design is based on the loads of the structure placed on the shallow soils under the structure.
6. No deep soils geotechnical testing information was provided for this design.
7. This design does not address any possible sink hole activity as defined in Florida Statute § 627.706.

5/23/2023
Carl E Cool, P.E.
State of Florida
Professional Engineer No. 16921

Digitally signed by Carl E Cool
Date: 2023.05.23 13:24:22 -04'00'

This Item has been electronically sealed by Carl Cool using a digital signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

203 W. Main St.
Avon Park, FL 33825
Office: (863) 657-2323
Fax: (863) 657-2324

Contractor: Stable Foundation Solutions

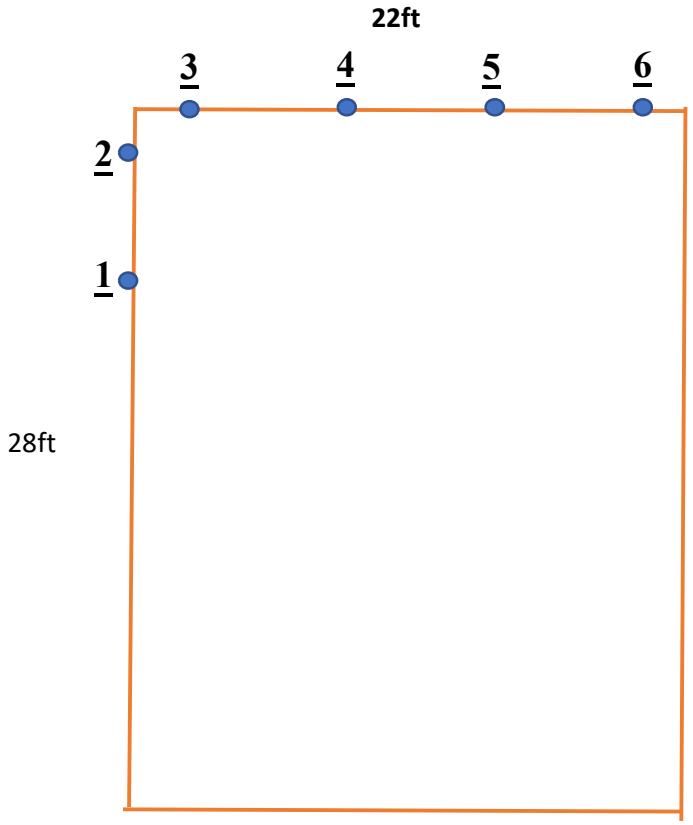
Stable Foundation Solutions, Inc.
7722 US HWY 27 Ft. White, FL 32038
(833) 982-0311 stablefoundationsinc.com

Gwen Hawkins
6855 Elim Church Rd Ft.
White Fl 32038

Legend

M 250 Push Piers

Single story CMU structure



5/23/2023
Carl E. Cool, P.E.
PE# 16921

Cool and Cobb Engineering Co.
203 W. Main St.
Avon Park, FL 33825

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Attachment "A"

Total Load on Pile (Live Load + Dead Load)

PILE NO.	TOTAL CALCULATE LOAD
1	9,000 lbs
2	7,500 lbs
3	6,000 lbs
4	7,200 lbs
5	7,200 lbs
6	6,000 lbs

Maximum Total Load on Pile: 9,000 lbs

5/23/2023

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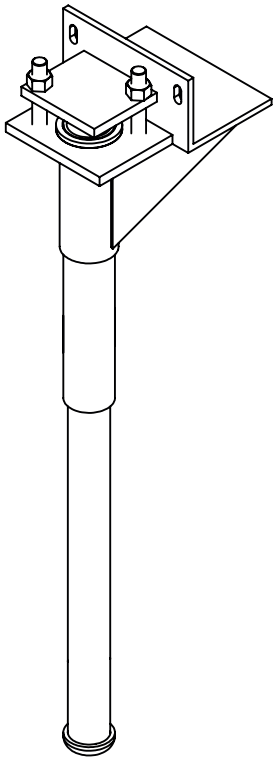
Avon Park, FL 33825

Push Pier System

Lift Brackets

TMG Manufacturing offers 4 different foundation brackets designed to meet the needs of any foundation support application. Choose between our heavy duty lift bracket or our medium duty lift bracket. Both brackets are also available for grout injection. All of our brackets are made from high-tensile strength steel and comprised of CNC machined parts, ensuring precision and accuracy. In addition, all brackets are robotically welded guaranteeing a quality product every time. All brackets have been field and lab tested and can be powder-coated or galvanized.

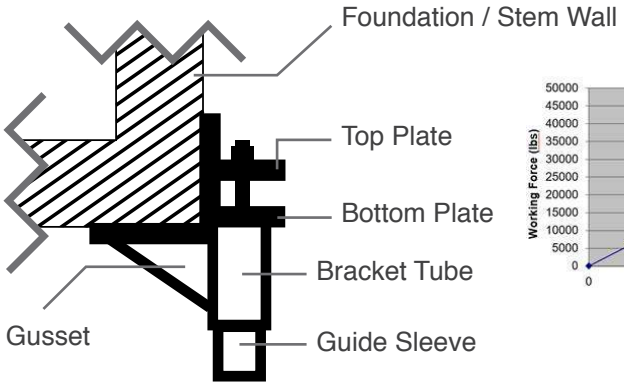


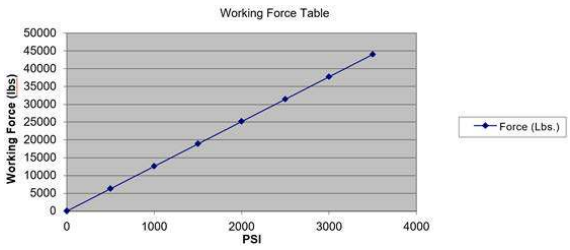
Product	Capacity
Standard Duty Lift Bracket	45 kips
Heavy Duty Lift Bracket	70 kips
Standard Duty Injection Bracket	45 kips
Heavy Duty Injection Bracket	70 kips

Push Pipe

TMG Manufacturing offers several types of foundation support piers, designed to be installed directly to load bearing strata. All piers are used in conjunction with our lift brackets to stabilize and strengthen existing foundations. All pins are engineer certified and field and lab-tested. Can be galvanized or powder-coated.

Product	Wall Thickness	Outside Diameter	Tensile Strength (lbs)	Yield Strength (lbs)
Standard Push Pipe	.217”	2.875”	14,500	262,000
Heavy Duty Push Pipe	.308”	2.875”	16,900	276,400
Standard Injection Push Pipe	.217”	2.875”	14,500	262,000
Heavy Duty Injection Push Pipe	.308”	2.875”	16,900	276,400





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