

Cool and Cobb Engineering Company

Date: 6/3/20
Job: Alex & Iris Colson
Location: 167 SE Myrtis Rd
Lake City, FL 32025

PILING DESIGN ANALYSIS

The load requirements for the pilings designed to assist in supporting the identified areas of the subject residence were determined. The selected piling locations and the specific piling are identified on the Pier Identification and Location Plan attached. The calculated total loads on the piles 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 piles, the push pier driver is to be employed. The push pier driver should be employed with a calculated load of 8,400 lbs., which will provide pile capacity, including the 2 to 1 safety factor of 16,800 lbs. which is greater than the maximum calculated total load of 8,400 lbs. which occurs on the pile identified as no. 5. Based on this analysis, the use of the push pier driver for the ECP piles with a specific load of 16,800 lbs. and a minimum depth of 15' is approved and certified as meeting all the requirements of the Florida Building Code 2017 6th 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 pile installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. A log of each pile to be kept by Contractor noting depth for each pile.
2. Piles installed less than 48" apart are to be battered 10° away from each other.
3. This design is based on the loads of the structure placed on the shallow soils under the structure.
4. No deep soils geotechnical testing information was provided for this design.
5. This design does not address any possible sink hole activity as defined in Florida Statute § 627.706.

6/3/20
Carl Cool, P.E.
State of Florida
Professional Engineer No. 16921



Sealed



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

Cool and Cobb Engineering Company

Date: 6/3/20

Job: Alex & Iris Colson

Location: 167 SE Myrtis Rd

Lake Cuty, FL 32025

PILING DESIGN ANALYSIS

The load requirements for the pilings designed to assist in supporting the identified areas of the subject residence were determined. The selected piling locations and the specific piling are identified on the Pier Identification and Location Plan attached. The calculated total loads on the piles in the specific location, including both dead and live loads are documented in the attached table which is designated as Attachment "A". This pile design is approved and certified as meeting all the requirements of the Florida Building Code 2017 6th 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 log of the location of each pile installed so they can evaluate the installation and prepare the "As Built" drawings.

General Notes:

1. A log of each pile to be kept by Contractor noting depth and final pressure installed for each pile.

6/3/20

Carl Cool, P.E.

State of Florida

Professional Engineer No. 16921



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

Cool and Cobb Engineering Company

Date: 6/3/2020
Job: Alex & Iris Colson
Location: 187 SE Myrtis Rd
Lake City, FL 32025

Attachment "A"

PILE NO.	Total Load on Pile (Live Load + Dead Load)	TOTAL CALCULATE LOAD
1		4,200 lbs
2		7,800 lbs
3		6,000 lbs
4		6,600 lbs
5		8,400 lbs
6		6,600 lbs
7		6,000 lbs
8		7,200 lbs
9		6,000 lbs
10		6,000 lbs
11		6,000 lbs
12		6,600 lbs
13		8,400 lbs
14		5,400 lbs
15		7,200 lbs
16		8,400 lbs
B-1		6,000 lbs
B-2		6,000 lbs
B-3		4,000 lbs
B-4		6,000 lbs
B-5		6,000 lbs
B-6		4,000 lbs

Maximum Total Load on Pile: 8,400 lbs

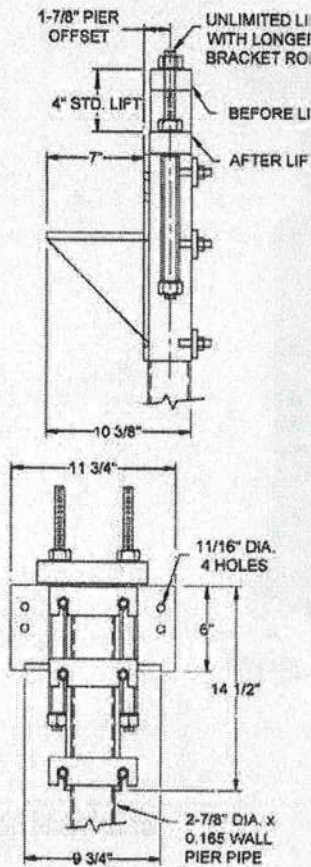
6/3/2020
Carl E. Cool, P.E.
PE# 16921



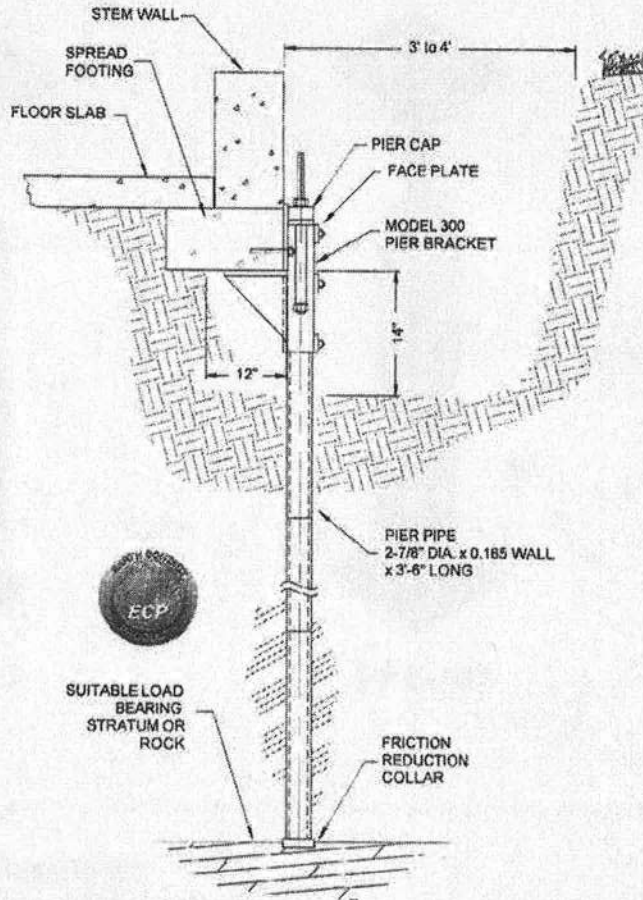
Cool and Cobb Engineering Co.
203 W. Main St.
Avon Park, FL 33825

ECP Steel Pier™ PPB-300 Utility Bracket Pier System

- PPB-300 Ultimate Capacity – 68,000 lb
- Maximum Proof Load – 51,000 lb
- 68 Square Inches Bearing Surface
- Standard Lift – 4"
- Fully Adjustable Unlimited Lift Capability
- Installs From Outside or Inside Structure
- Friction Reduction Collar On Lead Pier Section
- 2-7/8" Diameter High Strength, Galvanized Tubular Pier
- Installs With Portable Equipment
- Installed With Little or No Vibration
- Installs To Rock or Verified Load Bearing Stratum
- 100% of Piers Proof Tested When Installed
- U.S. Patent No. 6,193,422
- Manufacturer's Warranty



**PPB-300
Utility Bracket Details**



**PPB-300 Utility Bracket
Application Drawing**

The capacity of the Model 300 foundation support system is a function of the capacity of pier pipe and soil surrounding the pipe, capacity of the load bearing stratum, foundation bracket, foundation strength and strength of the bracket to foundation connection. Actual capacities could be lower than the bracket capacity.

Earth Contact Products, LLC reserves the right to change design features, specifications and products without notice, consistent with our efforts toward continuous product improvement. Please check with Earth Contact Products at 972 480-0007 or 913 393-0007 to verify that you are using the most recent specifications.

ECP Model 350 & Model 400 Utility Bracket
2012-06

Page 6

© 2011 Earth Contact Products, L.L.C.
Permission granted to copy for sole
purpose to prepare bid documents

6/3/2020
Carl E. Cool, P.E.
PE# 16921

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