

Record Detail * (This section is required.)

*Approved R12
4/7/2025*

Permit Type	Permit Number	Opened Date
Building/Residential/Alteration/SFD	B25001252	04/02/2025

Description of Work
SFD/ INSTALLATION OF ONE HELICAL PIER TO RIGHT FRONT PORCH/GARAGE FOUNDATION WALL.
APPOX SQ. FT. 10**SUBJECT TO FIELD INSPECTION**

[check spelling](#)

Address * (This section is required.)

Search Reset Clear Get Parcel & Owner

Street #	Street Name	Street Type
6636	ISLE OF SKYE	DR
Unit Type	Unit #	X Coordinate
-Select-		-76.96982
		Y Coordinate
		39.18895
City	State	Zip Code
HIGHLAND	MD	20777
		Primary
		Yes

Parcel * (This section is required.)

Search Reset Clear Get Address & Owner

GIS ID *	Parcel	Parcel Area	Land Value	Improved Value	Exemption Value	Plan Area
853242	370	2.54	280400	0	463200	RURAL

Legal Description
LOT 16 2.540 AR S 1 []6636 ISLE OF SKYE DR []HIGHLAND LAKE

[check spelling](#)

Block	Lot	Census Tract	Council Dist	Inspection Dist	Supervisor Dist	Map #	DAP Zone
	16	605101	5				
Plan Area		State Tax Id		Subdivision Name			
		1405381576		HIGHLAND LAKE			
Section		Area		Tax Map			
				34			
Grid		Zoning District		ADC Map			
34-21		RR-DEO		4933-E10			
SDP No.		Final Plan No.		WP File No.			
Record Plat No.		WS Contract No.		FDP No.	Primary		
3808					Yes		
Owner Occupied		Year Built		Historic District			
<input checked="" type="radio"/> Yes <input type="radio"/> No		1987		<input type="radio"/> Yes <input checked="" type="radio"/> No			
Historic District Registry No.		Stat Area		Flood Plain			
		5-04A		<input type="radio"/> Yes <input checked="" type="radio"/> No			
Building No							

Owner (This section is not required.)

Search Reset Clear

Name *
SIGMA
Address Line 1
6636 ISLE OF SKYE DR
Address Line 2

Address Line 3

Mail City
HIGHLAND
Mail State
MD
Mail Zip Code
20777
Phone
240-215-6118
Primary
Yes
E-mail

Date: March 28, 2025
Project: Hartsock Residence
Address: 6636 Isle Of Skye Dr
Highland, MD 20777

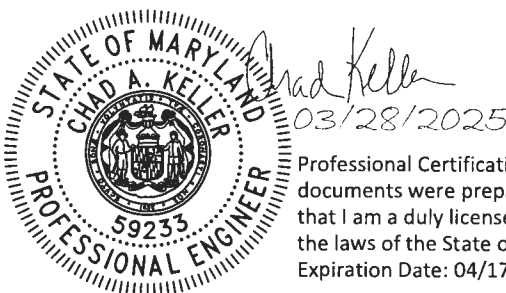
Foundation Support Systems Analysis

This report is prepared for Fortress Foundation Solutions (contractor) by FDN Engineering (engineer). Helical piers are proposed for installation at the above referenced project. The foundation support system is intended to stabilize and potentially lift the existing foundation structure – reducing pressure on existing soils. Load requirements for the systems were calculated at areas shown on repair plan. Engineer performed design for this project - see page 2 for engineering notes and results. See page 3 for details of the repair systems. See page 4 for a repair plan of the foundation support systems on the structure.

To the best of my professional knowledge, the design of the helical pier foundation support systems meets the structural requirements of the 2021 International Residential Code to the extent that it applies to our scope of work. Engineer is retained in a limited capacity for this project. No responsibility and/or liability is assumed by, nor shall be assigned to engineer for items beyond the proposed scope as shown herein.

Upon completion of the foundation support systems, the contractor shall supply engineer a log of the installed locations, depth, and final torque of the helical piers, as well as photos of completed work. Engineer will evaluate the field data and prepare a letter of completion for closeout, if necessary.

FDN Engineering, LLC
2412 N 179th St.
Omaha, NE 68116
(402) 739-9642



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 59233, Expiration Date: 04/17/2026

Helical Pier Project Notes (contractor to inform engineer if assumptions are inaccurate):

1. Structure is two-story, residential with 4 in slab on grade floor & masonry walls.
2. Contractor will install helical piers, brackets, and all related components per the support manufacturer's current installation instructions and technical manual, and according to the latest ICC-ES AC358 & ESR-3074.
3. Helical piers shall have a center-to-center spacing at the helix depth of at least three (3) times the diameter of the largest helix plate.
4. Pier shall not be installed in recently backfilled sites, in bedrock soils, or where there is possible sinkhole activity. Notify engineer if foundation is cracked between piers.
5. The pier was designed as plain steel corroded with capacities assuming a 50-year scheduled sacrificial loss in thickness per ICC-ES AC406. Contractor may galvanize the system for added corrosion protection.
6. Only local effects have been checked on existing structural members (e.g., concrete bearing at pier bracket). The integrity of the existing supported structure is outside of our scope of work.
7. Where voids are created below the slab during lifting, it is recommended to fill with PolyLevel. Use compacted soil around the footing.

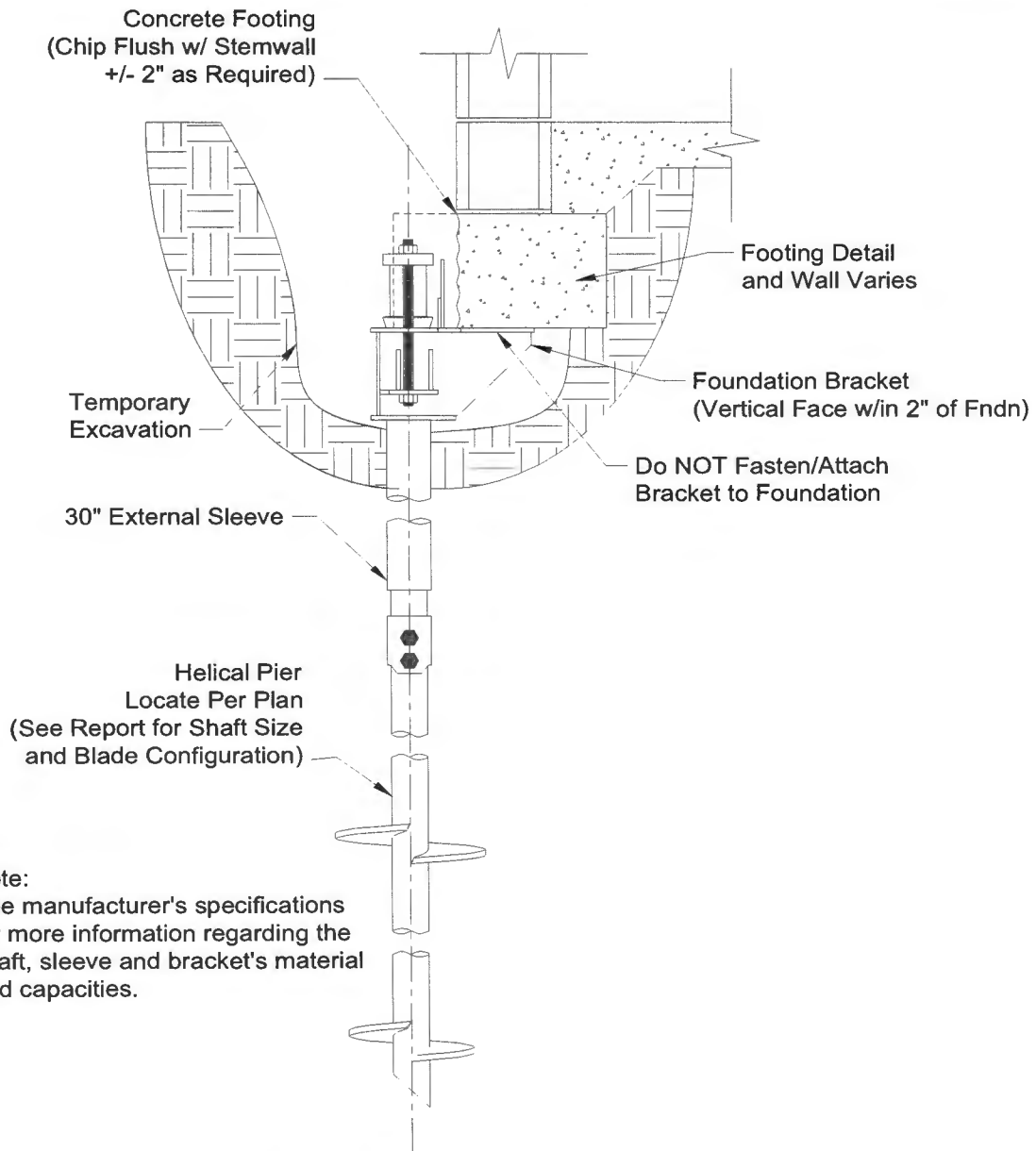
Helical Pier Analysis and Results:

8. All design loads are based on guidance from the applicable building code.
9. Helical piers are designed to support axial compression load only.
10. Maximum, worst-case, total load on a helical pier is **9,900 lbs** (allowable stress combinations).
11. We recommend installation of piers with a 2-7/8" diameter shaft (HP287) with 8" and 10" diameter (minimum) helix plates.
12. Minimum helical pier tip depth is 6 ft.
13. An installation torque of **2,200 ft-lbs** should be applied to achieve an allowable capacity greater than the total load.
14. Do not place pier directly under door/window (w/in 24" from footing). Contact engineer if condition exists.
15. Helical pier spacing along the foundation shall not exceed 4'-0" O.C. and 2-ft from a corner, typ.
16. A factor of safety of 2 is used to calculate the allowable soil bearing capacity.



Chad Keller
03/28/2025

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 59233, Expiration Date: 04/17/2026



HELICAL PIER TO FOOTING DETAIL

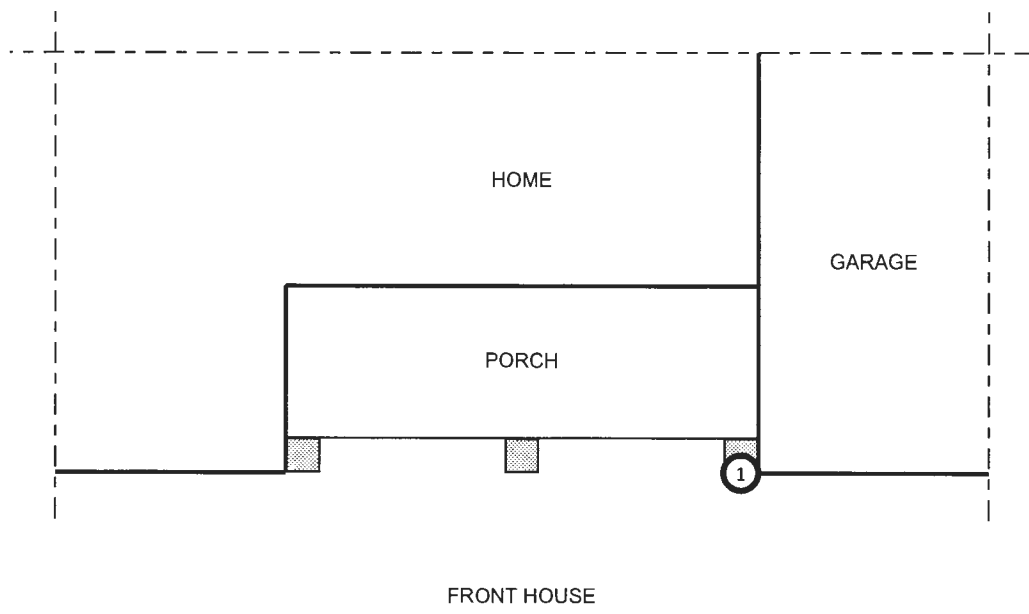
LEGEND:



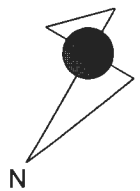
Indicates Helical Pier and Mark Number

Helical Pier Notes:

1. Residential construction, two-story.
2. Layout of (1) piers, Model HP287 for fndn support - 6'-0" min depth.
3. Installation torque of **2,200 ft-lbs.**
4. Pier max spacing is 4'-0", UNO. Start 2' from corners.
5. Spacing may vary based on field conditions. +/- 1 ft from noted spacing.
6. Install per helical pier manufacturer's instructions and tech. specifications.
7. Notify engineer if design assumptions are discovered inaccurate.



PARTIAL FOOTPRINT
OF PROPERTY



DRAWING NOT TO SCALE

Project:

Hartsock Residence
6636 Isle Of Skye Dr
Highland, MD 20777

FDN Engineering, LLC
2412 N 179th St.
Omaha, NE 68116
(402) 739-9642



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