

140457  
 3-24-22  
 1R67

# ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name Howard Enterprises Inc.				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave				Company NAIC Number:	
City Murrells Inlet		State South Carolina		ZIP Code 29576	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 1 Block B Eason					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>					
A5. Latitude/Longitude: Lat. <u>33-34-54.2"</u> Long. <u>79-00-22.3"</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>5</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>N/A</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A8.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>N/A</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A9.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Horry County 450104			B2. County Name Horry		B3. State South Carolina
B4. Map/Panel Number 450104-0784	B5. Suffix K	B6. FIRM Index Date 12-16-2021	B7. FIRM Panel Effective/ Revised Date 12-16-2021	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 12.0'
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

*[Handwritten Signature]*

JOB#25596



ELEVATION CERTIFICATE

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave			Policy Number:
City Murrells Inlet	State South Carolina	ZIP Code 29576	Company NAIC Number

**SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)**

- C1. Building elevations are based on:  Construction Drawings\*  Building Under Construction\*  Finished Construction  
\*A new Elevation Certificate will be required when construction of the building is complete.
- C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO.  
Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.  
Benchmark Utilized: SC VRS Network Vertical Datum: NAVD 1988
- Indicate elevation datum used for the elevations in items a) through h) below.  
 NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_
- Datum used for building elevations must be the same as that used for the BFE.
- |  |             |  |
|--|-------------|--|
|  |             | Check the measurement used.  |
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor)  | <u>16.6</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| b) Top of the next higher floor  | <u>N/A</u>  | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only)  | <u>N/A</u>  | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| d) Attached garage (top of slab)   | <u>N/A</u>  | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) | <u>16.3</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG)   | <u>9.9</u>  | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG)  | <u>10.3</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support                               | <u>N/A</u>  | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |

**SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION**

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  Check here if attachments.

Certifier's Name William Bryan Huntley III	License Number 8809		
Title Land Surveyor			
Company Name Huntley & Associates, Inc.			
Address 7760 Fallen Timber Dr.			
City Myrtle Beach	State South Carolina		ZIP Code 29588
Signature 	Date 03-03-2022	Telephone (843) 238-8745	Ext. JOB # 25596

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)  
Equipment servicing building in C2(e) is air conditioner.



**ELEVATION CERTIFICATE**

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave			Policy Number:
City Murrells Inlet	State South Carolina	ZIP Code 29576	Company NAIC Number

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)  
FOR ZONE AO AND ZONE A (WITHOUT BFE)**

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the HAG.
  - b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?  Yes  No  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name \_\_\_\_\_

Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments

Check here if attachments.

**ELEVATION CERTIFICATE**

OMB No. 1660-0008  
Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave			Policy Number:
City Murrells Inlet	State South Carolina	ZIP Code 29576	Company NAIC Number

**SECTION G – COMMUNITY INFORMATION (OPTIONAL)**

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1.  The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.  A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
-------------------	------------------------	---

- G7. This permit has been issued for:       New Construction     Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  feet  meters    Datum \_\_\_\_\_
- G9. BFE or (in Zone AO) depth of flooding at the building site: \_\_\_\_\_  feet  meters    Datum \_\_\_\_\_
- G10. Community's design flood elevation: \_\_\_\_\_  feet  meters    Datum \_\_\_\_\_

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

Check here if attachments.



**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

**ELEVATION CERTIFICATE**

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave			Policy Number:
City Murrells Inlet	State South Carolina	ZIP Code 29576	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption Front 3-3-2022 Job # 25596 Clear Photo One

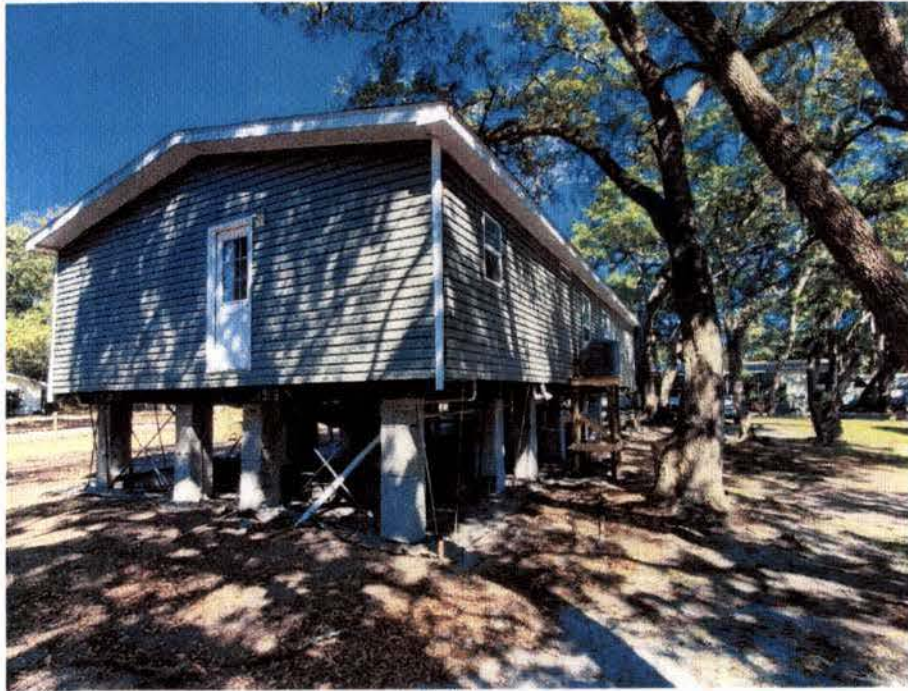


Photo Two

Photo Two Caption Under 3-3-2022 Job # 25596 Clear Photo Two



**ELEVATION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 336 Atlantic Ave			Policy Number:
City Murrells Inlet	State South Carolina	ZIP Code 29576	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three Caption

Clear Photo Three

Photo Four

Photo Four Caption

Clear Photo Four



March 22, 2022

Foundation Plus  
Jeff Wood  
4911-C Bridges Street  
Morehead City, NC 28557  
(252) 247-4448

Re: 22030414 Howard Enterprises  
336 Atlantic Avenue  
Murrells Inlet, SC 29578  
FEMA Foundation

Dear Mr. Wood:

I have reviewed the installation of the footings, piers, and anchoring for my plan dated 1/11/22. The footings, piers, and pier anchoring installation is in compliance with my plan and acceptable.

Please feel free to contact me if you have questions.

Sincerely,

Scott Murphree-Roberts, PE

Digitally signed by Michael S. Murphree-Roberts  
Date: 2022.03.22 15:42:53 -05'00'



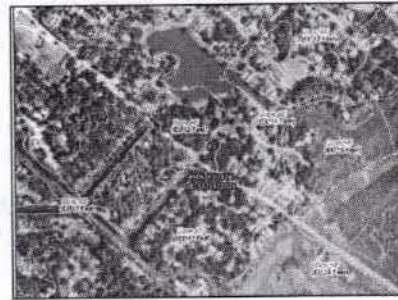
3/22/2022



**NOTES:**

1. SCREW TYPE ANCHORS SHALL BE 48" LONG & HAVE A MINIMUM CERTIFIED HOLDING POWER OF 4,725 POUNDS IN THE TYPE OF SOIL IN WHICH IT WILL BE INSTALLED UNDER SATURATED CONDITIONS.
2. GALVANIZED STRAPPING SHALL BE 1-1/4" WIDE MIN. X 0.035" THICK MIN HOT-DIP GALVANIZED MEETING THE REQUIREMENTS OF FED SPEC. 00-S-7851H FOR TYPE 1, CLASS B, GRADE 1 STRAPPING
3. SCREW ANCHOR CLAMPS, TENSIONING ADJUSTERS, & ANCHOR HARDWARE SHALL NOT LIMIT THE OVERALL CAPACITY OF THE ANCHORING SYSTEM BELOW 4,725 LBS. THE INSTALLER SHALL SUBMIT PROOF THAT THE ANCHORING SYSTEM PROPOSED MEETS THE 4,725 LB CAPACITY IN THE SOIL TYPE IT IS BEING INSTALLED UNDER SATURATED CONDITIONS.
4. SKIRTING SHALL BE:
  - a. DESIGNED TO BREAK AWAY AT LATERAL LOAD OF 15 PSF, OR
  - b. DESIGNED WITH A FLOOD GATE SUBJECT TO THE FOLLOWING: TOTAL AREA OF THE FLOOD GATES SHALL BE AT LEAST EQUAL IN SQ IN TO THE SQ FOOTAGE OF THE CRAWLSPACE. THERE SHALL BE AT LEAST TWO OPENINGS ON OPPOSITE SIDES OF THE ENCLOSURE. THE BOTTOM OF THE FLOOD GATE SHALL BE NO MORE THAN 12 IN ABOVE GRADE. THE FLOOD GATES SHALL HAVE UNIMPEDED FLOW IN BOTH DIRECTIONS.
  - c. BRICK OR CMU SKIRTING MAY BE SUPPORTED BY A 12" X 8" POURED FOOTER UNDER THE CURTAIN WALL.
5. ADDITIONAL HORIZONTAL & LONGITUDINAL WIND STRAPPING SHALL BE PROVIDED IN ACCORDANCE WITH STATE & LOCAL CODES & MANUFACTURER'S RECOMMENDATIONS FOR WIND ZONE II. ALL ANCHORS SHALL BE 48" MINIMUM FOR ALL ADDITIONAL WIND STRAPPING.
6. ALL OTHER DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH 24 CFR PARTS 3280 AND 3285 MODEL MANUFACTURED HOME INSTALLATION STANDARDS & ANY OTHER MANUFACTURER'S RECOMMENDATIONS.
7. USE ANCHORS THAT HAVE BEEN TESTED AND MEET REQUIRED STRENGTH IN SATURATED SOILS, SUCH AS THE OLIVER OT 486B.
8. SET HOME FRAME 36" MIN ABOVE BASE FLOOD ELEVATION. BFE = 12 PER FM45051C0784 K.

**DESIGN CRITERIA:**  
 MAXIMUM VELOCITY PRESSURE - 20 PSF  
 MAXIMUM ROOF LIVE LOAD - 30 PSF  
 FLOOR LIVE LOAD - 40 PSF  
 FLOOR DEAD LOAD - 20 PSF  
 MAXIMUM FLOOD VELOCITY - 5 FPS  
 f<sub>c</sub> - 3,000 PSI  
 f<sub>y</sub> - 40 KSI

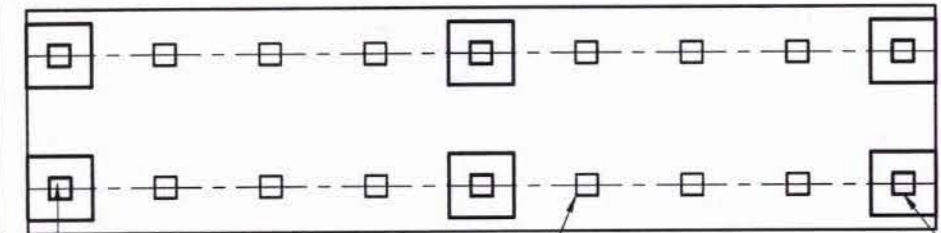


**SITE LOCATION**

**NOTE:** A COMPLETE FLOOD ZONE TIE DOWN SYSTEM MUST MEET THE REQUIREMENTS OF BOTH CFR 3285 (INCLUDING BUT NOT LIMITED TO SUBPART D, FOUNDATIONS AND SUBPART E, ANCHORAGE AGAINST WIND) AND THE ADDITIONAL FLOOD ZONE REQUIREMENTS AS LISTED ON THIS DRAWING.

THE ATTACHED DRAWING SHOWS RESISTANCE TO FLOOD ZONE FORCES ONLY AND DOES NOT ADDRESS WIND ZONE FORCES. RESISTANCE TO WIND ZONE FORCES IS ADDRESSED SEPARATELY IN CFR 3285. RESISTANCE TO BOTH WIND FORCES AND FLOOD ZONE FORCES MUST BE PRESENT.

Note: Place end piers no farther than 2' from each end of the I-beam. Plan shows one section. Mirror for other section.



**FEMA FOUNDATION PIER AND FOOTING:**  
 12 TOTAL FOR DOUBLE-WIDES UP TO 60'

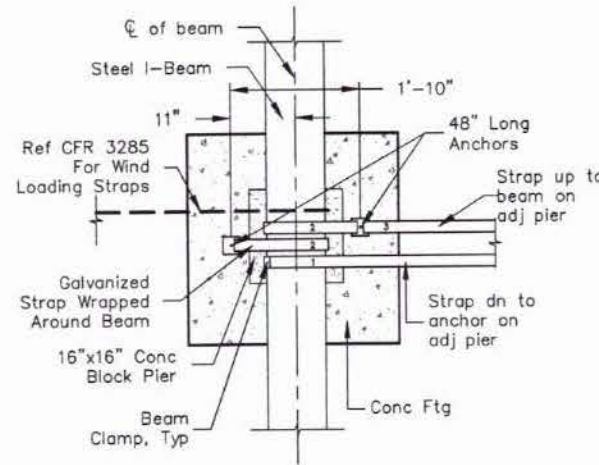
16"x16" BLOCK PIER WITH 16"x16"x4" THICK CONCRETE PAD FOOTING. LOCATE PER MANUFACTURER'S REQUIREMENTS

Anchor Layout Plan, Typ. **B**  
1

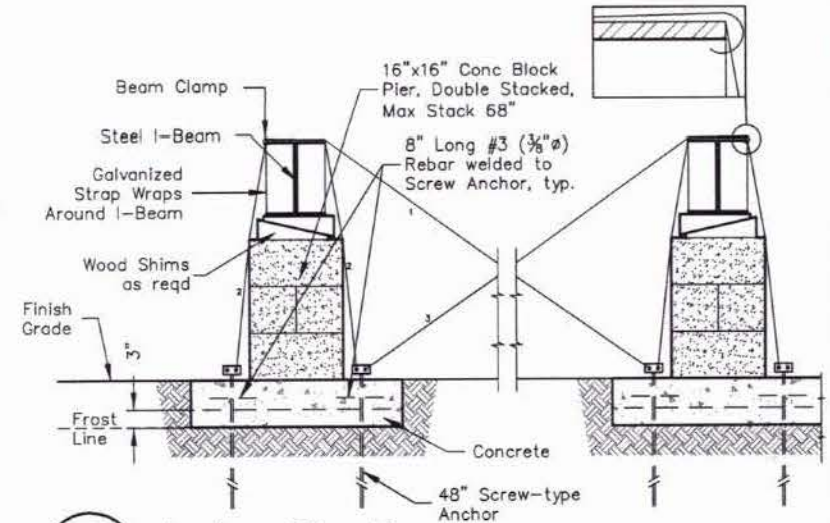
**A**  
1  
**Footing Layout**  
SCALE: NTS

**FOOTING SIZE for FEMA FOOTERS**

SOIL BEARING CAPACITY	MINIMUM FOOTING SIZE	MINIMUM REINFORCING
1000	49"x49"x12"	#3 AT 6" O.C. E.W.
1500	40"x40"x12"	#3 AT 6" O.C. E.W.
2000	38"x38"x12"	#3 AT 6" O.C. E.W.
2500	31"x31"x12"	#3 AT 6" O.C. E.W.
3000	30"x30"x12"	#3 AT 6" O.C. E.W.



**B**  
1  
**Anchor Layout Plan**  
SCALE: NTS



**C**  
1  
**Anchor Pier Elevation**  
SCALE: NTS

**REFERENCES:**  
 FEMA 85 MANUFACTURED HOME INSTALLATION IN FLOOD HAZARD AREAS  
 CFR 3285 MODEL MANUFACTURED HOME INSTALLATION STANDARDS: FINAL RULE



Digitally signed by Michael S. Murphree-Roberts  
 Date: 2022.01.11 10:23:48 -06'00'

01/11/22

**FEMA Flood Zone Foundation Design**

Owner: Howard Enterprises  
 Address: 336 Atlantic Avenue  
 Murrells Inlet, SC 29578  
 Job No: 1906xxx  
 Date: 01/11/22  
 Dwn By: SMR Chkd By: SMR

**HAYMAN ENGINEERING, INC**

1923 N. Broadway Ave, Springfield, MO 65803  
 M.S. Murphree-Roberts, PELicensed Professional Engineer South Carolina License No. 28773  
 Board of Engineers-Firm License (COA) 4910  
 (417) 831-5550 hfeorders@haymanengineering.com