

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
ELEVATION CERTIFICATE

IMPORTANT: FOLLOW THE INSTRUCTIONS ON PAGES 9-16

OMB Control Number: 1660-0008
Expiration: 11/30/2018

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		FORM INSURANCE COMPANY USE
A1. Building Owner's Name BASS ENTERPRISES INC		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 620 NW ARAKANSAS WAY		Company NAIC Number:
City CHEHALIS	State WA	Zip Code 98532

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
LEWIS COUNTY PARCEL NO. 005605826003-TRACT 6C OF BSP AFN 3426967

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)

A5. Latitude/Longitude: Lat. N 46°40'41.52" Long. 122°58'27.02" Horizontal Datum: NAD 1927 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 1B

<p>A8. For a building with a crawlspace or enclosure(s):</p> <p>a) Square footage of crawlspace or enclosure(s) <u>NA</u> sq ft</p> <p>b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>NA</u></p> <p>c) Total net area of flood openings in A8.b <u>NA</u> sq in</p> <p>d) Engineered flood openings? <input type="radio"/> Yes <input checked="" type="radio"/> No</p>	<p>A9. For a building with an attached garage:</p> <p>a) Square footage of attached garage <u>NA</u> sq ft</p> <p>b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>NA</u></p> <p>c) Total net area of flood openings in A9.b <u>NA</u> sq in</p> <p>d) Engineered flood openings? <input type="radio"/> Yes <input checked="" type="radio"/> No</p>
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SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number CHEHALIS - 530104			B2. County Name LEWIS		B3. State WA
B4. Map/Panel Number 530104 1361	B5. Suffix C	B6. FIRM Index Date 07/17/2006	B7. FIRM Panel Effective/ Revised Date 07/17/2006	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth 179.7 (NAVD 88))

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
 FIS Profile FIRM Community Determined Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 NAVD 1988 Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes No
Designation Date: CBRS OPA

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)	
C1. Building elevations are based on: <input type="radio"/> Construction Drawings* <input type="radio"/> Building Under Construction* <input checked="" type="radio"/> Finished Construction	
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.	
* A new Elevation Certificate will be required when construction of the building is complete.	
Benchmark Utilized: <u>SC 2005</u>	Vertical Datum: <u>NAVD 88</u>
Indicate elevation datum used for the elevations in items a) through h) below. <input type="radio"/> NGVD 1929 <input checked="" type="radio"/> NAVD 1988	
<input type="radio"/> 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>178</u> - <u>35</u> <input checked="" type="radio"/> feet <input type="radio"/> meters
b) Top of the next higher floor	<u>NA</u> - <u>_____</u> <input checked="" type="radio"/> feet <input type="radio"/> meters

FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES (Continued)

The floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation; however, a floodproofing design certification is required. This form is to be used for that certification. Floodproofing of a residential building does not alter a community's floodplain management elevation requirements or affect the insurance rating unless the community has been issued an exception by FEMA to allow floodproofed residential basements. The permitting of a floodproofed residential basement requires a separate certification specifying that the design complies with the local floodplain management ordinance.

BUILDING OWNER'S NAME <p style="text-align: center;">BASS ENTERPRISES INC</p>	FOR INSURANCE COMPANY USE POLICY NUMBER: COMPANY NAIC NUMBER:
STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. Number) OR P.O. ROUTE AND BOX NUMBER <p style="text-align: center;">620 NW ARKANSAS WAY</p>	
OTHER DESCRIPTION (Lot and Block Numbers, etc.) <p style="text-align: center;">LEWIS COUNTY PARC. NO. 005605826003-TRACT 6C BSP AFN 3426967</p>	
CITY <p style="text-align: center;">CHEHALIS</p>	STATE <p style="text-align: center;">WA</p>
	Zip Code <p style="text-align: center;">98532</p>

SECTION I – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (in AO Zones, Use Depth)
5310104	1361	C	07/17/2006	AE	176.3

Indicate elevation datum used for Base Flood Elevation shown above: NGVD 1929 NAVD 1988 Other/Source: _____

SECTION II – FLOODPROOFED ELEVATION CERTIFICATION (By a Registered Professional Land Surveyor, Engineer, or Architect)

All elevations must be based on finished construction.

Floodproofing Elevation Information:

Building is floodproofed to an elevation of 177.9 feet (In Puerto Rico only: _____ meters).

NGVD 1929 NAVD 1988 Other/Source: _____

(Elevation datum used must be the same as that used for the Base Flood Elevation.)

Height of floodproofing on the building above the lowest adjacent grade is 4 feet (In Puerto Rico only: _____ meters).

For Unnumbered A Zones Only:

Highest adjacent (finished) grade next to the building (HAG) 174 . 8 feet (In Puerto Rico only: _____ meters).

NGVD 1929 NAVD 1988 Other/Source: _____

(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least 1 foot above the Base Flood Elevation to receive rating credit. If the building is floodproofed only to the Base Flood Elevation, then the building's insurance rating will result in a higher premium. See the Instructions section for information on documentation that must accompany this certificate if being submitted for flood insurance rating purposes.)

FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES (Continued)

Non-Residential Floodproofed Elevation Information Certification:

Section II 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 in Section II on this Certificate represents a true and accurate interpretation and determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME KENNETH L. FRAZIER	LICENSE NUMBER (or Affix Seal) PLS 16908		
TITLE PROFESSIONAL LAND SURVEYOR	COMPANY NAME FORESIGHT SURVEYING, INC		
ADDRESS 1583 N NATIONAL AVE.	CITY CHEHALIS	STATE WA	ZIP CODE 98532
SIGNATURE <i>Kenneth L. Frazier</i>	DATE OCT. 2, 2017	PHONE 360-748-4000	



SECTION III - FLOODPROOFED CERTIFICATION (By a Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify the structure, based upon development and/or review of the design, specifications, as-built drawings for construction and physical inspection, has been designed and constructed in accordance with the accepted standards of practice (ASCE 24-05, ASCE 24-14 or their equivalent) and any alterations also meet those standards and the following provisions.

The structure, together with attendant utilities and sanitary facilities is watertight to the floodproofed design elevation indicated above, is substantially impermeable to the passage of water, and shall perform in accordance with the 44 Code of Federal Regulations (44 CFR 60.3(c)(3)).

All structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy, and anticipated debris impact forces.

I certify that the information in Section III on this certificate represents a true and accurate determination by the undersigned using the available information and data. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME	LICENSE NUMBER (or Affix Seal)			PLACE SEAL HERE
TITLE	COMPANY NAME			
ADDRESS	CITY	STATE	ZIP CODE	
SIGNATURE	DATE	PHONE		

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

DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
**FLOODPROOFING CERTIFICATE
FOR NON-RESIDENTIAL STRUCTURES**

OMB Control Number. 1660-0008
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Paperwork Burden Disclosure Notice

Public reporting burden for this data collection is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

General: This information is provided pursuant to Public Law 96-511 (the Paperwork Reduction Act of 1980, as amended), dated December 11, 1980, to allow the public to participate more fully and meaningfully in the Federal paperwork review process.

Authority: Public Law 96-511, amended; 44 U.S.C. 3507; and 5 CFR 1320.

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or being subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

**Purpose of the Floodproofing Certificate
for Non-Residential Structures**

Under the National Flood Insurance Program (NFIP), the floodproofing of non-residential buildings may be permitted as an alternative to elevating to or above the Base Flood Elevation (BFE). A floodproofing design certification is required for non-residential structures that are floodproofed. This form is to be used for that certification.

A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Before a floodproofed building is designed, numerous planning considerations, including flood warning time, uses of the building, mode of entry to and exit from the building and the site in general, floodwater velocities, flood depths, debris impact potential, and flood frequency, must be addressed to ensure that dry floodproofing will be a viable floodplain management measure.

The minimum NFIP requirement is to floodproof a building to the BFE. However, when it is rated for flood insurance one-foot is subtracted from the floodproofed elevation. Therefore, a building has to be floodproofed to one foot above the BFE to receive the same favorable flood insurance rates as a building elevated to the BFE.

Additional guidance can be found in FEMA Publication 936, Floodproofing Non-Residential Buildings (2013), available on FEMA's website at <https://www.fema.gov/media-library/assets/documents/34270>.

FLOODPROOFING CERTIFICATE FOR NON-RESIDENTIAL STRUCTURES (Continued)

Instructions for Completing the Floodproofing Certificate for Non-Residential Structures

To receive credit for floodproofing, a completed Floodproofing Certificate for Non-Residential Structures is required for non-residential and business buildings in the Regular Program communities, located in zones A1–A30, AE, AR, AR Dual, AO, AH, and A with BFE.

In order to ensure compliance and provide reasonable assurance that due diligence had been applied in designing and constructing floodproofing measures, the following information must be provided with the completed Floodproofing Certificate:

- Photographs of shields, gates, barriers, or components designed to provide floodproofing protection to the structure
- Written certification that all portions of the structure below the BFE that will render it watertight or substantially impermeable to the passage of water and must perform in accordance with Title 44 Code of Federal Regulations (44 CFR 60.3 (c)(3))
- A comprehensive Maintenance Plan for the entire structure to include but not limited to:
 - Exterior envelope of the structure
 - All penetrations to the exterior of the structure
 - All shields, gates, barriers, or components designed to provide floodproofing protection to the structure
 - All seals or gaskets for shields, gates, barriers, or components
 - Location of all shields, gates, barriers, and components as well as all associated hardware, and any materials or specialized tools necessary to seal the structure.



12480 SW 68th Ave.
Tigard, Oregon 97223
Phone: 503-968-9994
Fax: 503-968-8444

September 25, 2017

Will Speakman
Centrex Construction, Inc.

Re: Flood Loading on Stemwall
Chehalis Dutch Brothers
620 NW Arkansas Way
Chehalis, WA 98532

Project #16081

Will,

The concrete stemwalls for the above mentioned project have been analyzed for flood loads, and have been determined to be sufficient for resisting hydrostatic, hydrodynamic, and buoyancy flood loads in accordance with FEMA P-936 and ASCE 07-10. A finished floor elevation of 178.33' and base flood elevation (BFE) of 179.7' were used for these calculations. Elevation data was provided to us by others and is not by our office. Waterproofing of the structure is by others as well.

If you have any questions, please do not hesitate to call.

Sincerely,

Hayden Consulting Engineers, Inc.

By: 
Gabi Miller, P.E.
Principal



9/25/17