

DEVELOPMENT CERTIFICATIONS FORM

Copy all pages of this form and all attachments for (1) community official, (2) building owner.
If any section is not applicable to the proposed development project please mark that section "NA"

SECTION A - PROPERTY INFORMATION				FOR COUNTY USE ONLY	
A1. Building/Site Owner's Name Bunker Hill Builders LLC				Permit Number: 2021-0140	
A2. Building/Site Street Address 10 Hunters Creek Dr				Date of Submittal: 3-25-2021	
City Huntsville		State TX		ZIP Code 71340	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 29 Block 3 Section 1					
A4. Latitude/Longitude: Lat. N32°38'19.59" Long. W95°36'51.10" Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
(For projects involving multiple map panels an additional sheet may be listed below or included in an additional attachment)					
B1. NFIP Community Name & Community Number Walker County Unincorp Area 481042			B2. County Name Walker County		B3. State TX
B4. Map/Panel Number 48A71C0500	B5. Suffix D	B6. FIRM Index Date 8/16/2011	B7. FIRM Panel Effective/ Revised Date 8/16/2011		B8. Flood Zone(s) X and AE
B9. Indicate elevation datum used for/ on FIRM Panel in Item B7: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
SECTION C - PROJECT DESCRIPTION AND ATTACHMENTS					
(At a minimum a general project description and plan set shall be submitted with this form. The documents listed below shall be included with this form and any additional catalog of submittals may be attached as a separate sheet and referenced below)					
Document Name		Date of Document		Signatory/Author	
Construction Documents for 2 story Residence		01/27/21		Bunker Hill Design LLC	
Engineered Drawings		03/03/21		Hendricks Engineers	
Full State/Local Permitting		03/22/21		M. Swanson	
Survey		12/02/20		M. Partridge	
Warranty Deed		12/21/20			
Final address request		3/22/21		M. Swanson	
Walker Co. Permit		3/22/21		M. Swanson	
		3/14/21			
SECTION D - BASE FLOOD ELEVATION UTILIZED IN DESIGN					
(A copy of a Determination of Base Flood Elevation Form must be submitted and the number below correspond with the elevation that appears in subsection E3. For large projects subject to varying or multiple flood heights please place an "X" in the box and initial adjacent to D2)					
D1) <input checked="" type="checkbox"/>	O.F.	The Base Flood Elevation utilized for the project design is: 210.0' O.F.			
D2) <input type="checkbox"/>		This project is subject to multiple Base Flood Elevations, the BFE is provided in attached plans/submittals as project overlay, detailed method of determination, drainage plans, and BFE impact summary.			
SECTION E - INCREASES TO OR IMPACT ON FLOODWAY OR BASE FLOOD					
(Required for all development projects within a regulated Area of Special Flood Hazard)					
I, the below signed Engineer/Architect do hereby certify that: (Please Mark one of the following with an "X" and Initial)					
E1) <input checked="" type="checkbox"/>	O.F.	The development is in an area where no regulatory floodway has been designated and the below signed certifies that he/she has analyzed the effects of the proposed development, and found that the proposed development when combined with other existing and anticipated development, will not increase the water surface elevation of the base flood by more than 1 foot at any point within the community.			
E2) <input type="checkbox"/>		The development is in an area where a regulatory floodway has been designated, and the below signed certifies that the development is not being constructed within the floodway, will not impact the floodway, and will not result in any increase to the surface elevation of the base flood by more than 1 foot.			
E3) <input type="checkbox"/>		The development is proposed to be partially or wholly located within a designated floodway, but the below signed certifies that hydrologic and hydraulic analyses have been performed in accordance with standard engineering practice and the proposed encroachment will not result in increased flood levels within the community during the occurrence of the base flood discharge. (analysis and "no-rise" certification attached)			

Initials of Certifier **O.F.**

SECTION F – ALTERATION OR RELOCATION OF WATERCOURSE OR NATURAL DRAINAGE

(Required for all development projects within a regulated Area of Special Flood Hazard)

I, the below signed Engineer/Architect do hereby certify that: (Please Mark one of the following with an "X" and Initial)

F1) D.F. The development does not include plans to alter or relocate any watercourse or natural drainage.

F2) _____ The development will alter or relocate a watercourse or drainage, and a description of such relocation or alteration is attached and has been designed to have no adverse impact on flooding or adjoining properties, and that the flood carrying capacity within the altered or relocated portion of any watercourse will be maintained. (In most cases where a watercourse or natural drainage has been altered or relocated a CLOMR and/or LOMR may be required.)

SECTION G – BUILDING CERTIFICATIONS

(Sections G-J are required for all projects involving a structure if not applicable to your project mark with "NA" in each blank)

I, the below signed Engineer/Architect do hereby certify that: (Mark with an "X" and initial all that apply / in most cases all 5 will apply):

G1) D.F. designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure/development components resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy,

G2) D.F. designed to use materials resistant to flood damage,

G3) D.F. designed to utilize methods and practices that minimize flood damages, including flood vents where appropriate.

G4) D.F. designed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. All electrical, heating, ventilation, plumbing, and mechanical equipment are designed at least twelve (12) inches above the BFE.

G5) D.F. The proposed plans for construction and methods used have been designed to comply with the current Walker County Floodplain Regulations, including but not limited to sections 5:01 and 5:02, and the applicable sections of existing guidance and technical bulletins as published by the Federal Emergency Management Agency (FEMA).

Copies of these publications can be found at:

<http://www.fema.gov/floodplain-management/floodplain-management-publications>

Including but not limited to:

- Above the Flood: Elevating Your Floodprone House, FEMA 347
- Below-Grade Parking Requirements, FIA-TB-8
- Crawlspace Construction for Buildings Located in Special Flood Hazard Areas, FIA-TB-11
- Design Guidelines for Flood Damage Reduction, FEMA 15
- Elevated Residential Structures, FEMA 54
- Elevator Installation, FIA-TB-4
- Ensuring that Structures Built on Fill In or Near Special Flood Hazard Areas are Reasonably Safe From Flooding, FIA-TB-10
- Flood-proofing Non-Residential Structures (Full Document), FEMA 102
- Non-Residential Floodproofing – Requirements and Certification (Technical Bulletin), FIA-TB-3
- Flood Damage-Resistant Materials Requirements, (Technical Bulletin 2) (2008)
- Free-of-Obstruction Requirements, (Technical Bulletin 5) (2008)
- NFIP Technical Bulletins
- Non-Residential Floodproofing – Requirements and Certification, FIA-TB-3
- Openings in Foundation Walls and Walls of Enclosures, (Technical Bulletin 1) (2008)
- Protecting Building Utilities from Flood Damage, FEMA 348
- Reducing Losses in High Risk Flood Hazard Areas: A Guidebook for Local Officials, FEMA 116
- Selecting Appropriate Mitigation Measures for Floodprone Structures, FEMA 551
- Wet Floodproofing Requirements, FIA-TB-7

SECTION H – BUILDING DESIGN ELEVATION CERTIFICATION

(All design elevations shall be given in the same elevation datum used for the elevation in section D1)

H1) The minimum designed elevation for the top of the lowest floor including basement 2100'

H2) The minimum designed elevation for machinery and equipment servicing building 2100'

SECTION I – FULLY ENCLOSED AREAS USABLE SOLELY FOR PARKING OF VEHICLES, ACCESS, AND STORAGE

(enclosed areas includes crawl spaces enclosed by walls or rigid skirting) Mark with an "X" and Initial

I1) D.F. There are no fully enclosed areas designed or intended below the lowest floor elevation given in H1 above.

I2) _____ There are fully enclosed areas below the bottom floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement. These areas have been designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The design for meeting this requirement is hereby certified to meet or exceed the following minimum criteria: a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. If openings are equipped with screens, louvers, valves, or other coverings or devices they will allow for the automatic entry and exit of floodwaters into and out of the fully enclosed areas. These areas have been designed with flood resistant materials and conform to FEMA's wet flood-proofing requirements, (see G5) and all machinery and equipment are designed to be elevated a minimum of 12 inches above the BFE shown in section D1.

Initials of Certifier D.F.

SECTION J – NON-RESIDENTIAL FLOODPROOFING

I, the below signed Engineer/Architect do hereby certify that: (Please Mark one of the following with an "X" and Initial)

- J1) All residential or non-residential structures, with the exception of areas addressed by Section I1 and I2, are designed to have their lowest floor including basement elevated at least twelve (12) inches above the BFE.
- J2) The non-residential structure(s) shown on the attached plans and applied for under this permit are, together with attendant utility and sanitary facilities, designed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. (Additional certification and plans may be required for applications under this section)

SECTION K – DESIGN CERTIFICATION

This certification is to be signed and sealed by a registered engineer or licensed architect authorized by law to practice in the State of Texas. Terms utilized in this document shall have the meaning assigned to them in the Walker County Regulations for Flood Plain Management, the Code of Federal Regulations, and FEMA publications where such assignment and use exists.

I certify that the information on this form represents my best efforts to interpret the data available, and that the determinations herein where made in compliance with FEMA approved methodologies and standard engineering practices I understand that any false statement may be punishable by fine or imprisonment.

Certifier's Name <i>Danielle M. Frasier</i>	License Number <i>17402</i>		
Title <i>Partner</i>	Company Name <i>Bunker Hill Design PUE</i>		
Address <i>193 Interstate 45 South</i>			
City <i>Huntsville</i>	State <i>TX</i>		ZIP Code <i>77340</i>
Signature 	Date <i>3/25/21</i>		Telephone <i>(713) 254-4882</i>

Additional Notes or Comments:

SECTION L – AS-BUILT CONSTRUCTION CERTIFICATION

This certification is to be signed and sealed by a registered engineer or licensed architect authorized by law to practice in the State of Texas after completion of the construction or development.

I, the below signed, certify that the project referenced above has been properly inspected and has been developed in compliance with the plans and information included and certified above, and that the finished development is completed in compliance with the requirements of the Walker County Floodplain Regulations, the specific provisions certified above, and the plans referenced in "Section C", with the exceptions listed below.

Certifier's Name	License Number	Place Seal Here
Additional Notes or Comments on Finished Construction		
Signature		
Date	Telephone	

Initials of Certifier *DT*