



FAY, SPOFFORD &
THORNDIKE
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October 13, 2013

Building Inspections Office
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509
ATTN: Marge Schmuckal

Subject: Permit # 201302298
Canal Landing New Yard – Phase 1
40 West Commercial Street
Applicant: New Yard, LLC
Height information and Flood Hazard Development Permit Application for New
Tension Fabric Structure

Dear Marge:

We have received your email transmission dated 10/10/2013 related to a request for additional building height information as well as the flood hazard development permit application for the proposed tension fabric structure at the New Yard, 40 West Commercial Street. Regarding the additional information related to the building height and compliance with the WPDZ code requirements we offer the following evidence:

1. The proposed building will be installed on a cast in place concrete foundation wall with a top elevation at 15.0' (NGVD29). The building eave dimensional height is 20'-3 1/2" (20.29') and the clear dimensional height is 47'-10 5/16" (47.86'). From top of foundation to roof peak the estimated overall dimensional height is approximately 49'.
2. In accordance with Section 14-47 of the Code of Ordinances the overall building height is defined as the vertical measurement to a midway point between the level of the eaves and the highest point of pitched roofs. For the proposed building this is measured as follows:

Step 1 Find midway point between eave height and top of structure or
 $49.0' - 20.29' = 28.71'$ divided by 2
 $= 14.36'$

Step 2 midway point dimensional height above top of foundation
 $= 20.29' + 14.36' = 34.65'$ (or elevation 49.65')

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Step 3 Compute building height over average existing ground grade around building perimeter. In accordance with Section 14-47 of the Code of Ordinances the Average exterior grade around the building perimeter is computed to be approximately elevation 13.3' (see attached plan). The overall building height is measured as follows:

Average ground grade = elevation 13.3'
Elevation at midway point of pitched roof = elevation 49.65'
Building height is computed as $49.65' - 13.3' = 36.35'$

Conclusion: The dimensional building height as defined for pitched roofs is computed to be approximately 36.35' which is less than the maximum allowable building height in the WPDZ which is 45.0' therefore the proposed building is compliant. The accompanying figure 1 depicts the dimensional measurements and elevations used for these computations.

3. In accordance with Section 14-320.2 (e)1.e, the overall building height above mean sea level is computed at follows:

Step 1 Foundation wall height will be set at elevation 15.0'
Step 2 Overall building dimensional height is approximately 49'
Step 3 Top of building elevation = $15' + 49' = 64'$

Conclusion: The top of the proposed building will be at elevation 64.0' (NGVD29) which is less than the maximum allowable of Elevation 65.0' above mean sea level.

With respect to the Flood Hazard Development Permit application we have completed the forms and include the following information as it appears to be required on Page 3 of the application for the proposed building.

Site Plan

1. **show property boundaries, floodway and floodplain lines** – the previously submitted existing conditions plan for the boat ramp was annotated to identify the limits of the elevation 10.0 ft. (NGVD29) floodplain limit based on an on the ground survey.
2. **Show dimensions of the lot** – See previously submitted Existing conditions Plan
3. **Show dimensions and location of existing and/or proposed development on the site** – The accompanying proposed Grading and Drainage plan depicts the proposed development and it has been annotated to clarify the proposed building floor elevations. Generally speaking the east side overhead door entrance will be at elevation 13.0' (NGVD29). The building floor will consist of a gravel surface which will be sloped from

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west to east. The westerly floor grade will be approximately elevation 15.0'. No portion of the building floor will be less than elevation 13.0' thus meeting the minimum floor grade of elevation 12.0'.

4. **For new construction also include existing grade elevations done by a Professional Land surveyor or Engineer** – the accompanying plans have been prepared by Owen Haskell Inc. and Fay, Spofford & Thorndike, Inc., professional land surveyors and engineers respectively.
5. **For New Construction attach statement describing in detail how each applicable development standard in Article VI will be met** – See as follows:

In accordance with Section 14-450.8 of the Code of Ordinances:

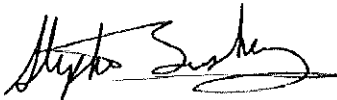
- (a) 1. Standard is met as the proposed project has been designed to include an engineered cast in place concrete foundation system.
 2. The standard is met as the proposed building will be constructed on cast in place and precast concrete materials.
 3. The proposed ramp and float systems have been designed by Licensed Professional Engineers and have been designed to prevent flood damage based on alignment and placement.
 4. This standard is not applicable.

- (f) 1. The proposed building has been set at least two (2) feet above the base flood elevation of 10.0'

Based on this accompanying information we trust that you can complete the processing of the proposed building permit and foundation permit as well as the Flood Hazard Development Permit application. If you have any questions or require any additional information, please contact our office.

Sincerely,

FAY, SPOFFORD & THORNDIKE, LLC



Stephen Bushey, P.E., C.P.E.S.C.
Senior Engineer

SRB/smk

Enclosures: Amended Site Plans

c: Bill Needelman, City Planning

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Phin Sprague, New Yard, LLC

Bob Flight, New Yard, LLC

Peter Plumb, Murray, Plumb and Murray

*R:\3091.02-Canal Landing-Amended Site Plans\Admin\Permitting\Commercial Building application\3091.02 2013.10.13-Height and Flood
Hazard Development permit Cover.doc*

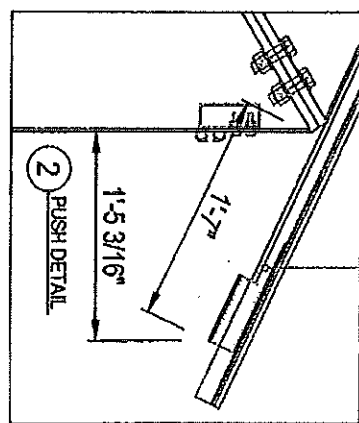
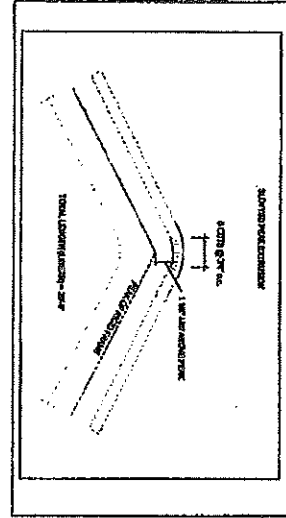
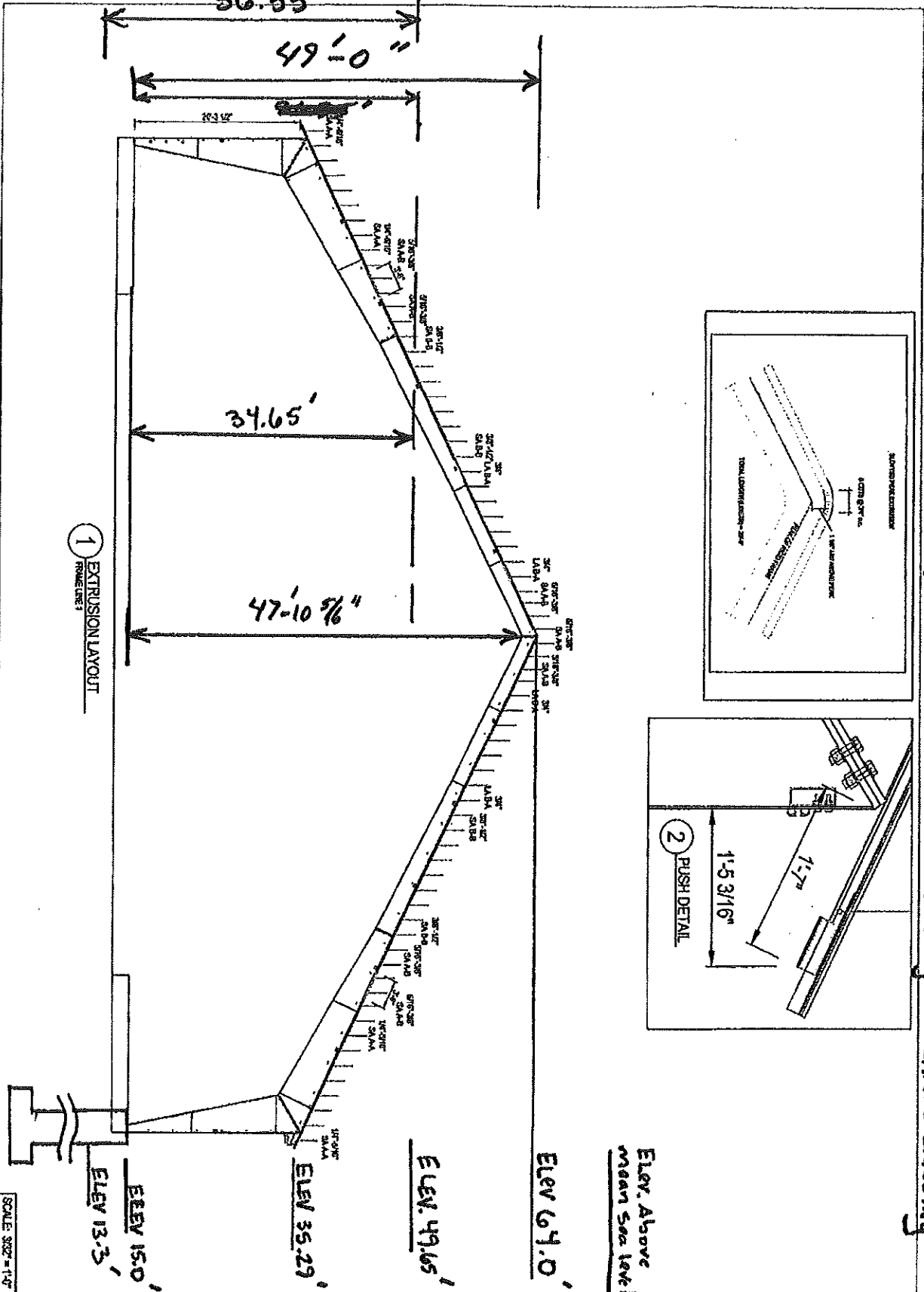
Building Height
36.35'

49'-0"

34.65'

47'-10 5/16"

1 EXTRUSION LAYOUT
FRAME LINE 1



Proposed Tension Fabric Building #1 - Canal Landing

10/13/13

Elev. Above
Mean Sea Level

ELEV 69.0'

ELEV 49.65'

ELEV 35.29'

ELEV 15.0'

ELEV 13.3'

SCALE 3/32" = 1'-0"

ALL ELEV. NEW 1929 DRAWING

<p>www.LegacyBuildingSolutions.com 1-877-258-1528</p>	<p>NEW YARD LLC 120'-0" x 160'-0" PORTLAND, ME</p>	<p>Legacy Building Solutions 1600 Ocean Rd. 12 South Berwick, ME 04863 P. 207-258-1525</p> <p>PATENT PENDING EXTRUSION LAYOUT & CONNECTIONS</p> <p>DATE: 10/13/13 DRAWN BY: [unintelligible] CHECKED BY: [unintelligible] SCALE: 3/32" = 1'-0"</p> <p>\$20.00</p>
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Marge Schmuckal - Canal Landing Building height and Flood Hazard Development Permit

From: "Stephen Bushey" <SBushey@fstinc.com>
To: "Marge Schmuckal" <MES@portlandmaine.gov>
Date: 10/13/2013 12:45 PM
Subject: Canal Landing Building height and Flood Hazard Development Permit
CC: "Phineas Sprague Jr." <phin@portlandyacht.com>, <flight@portlandyacht.co...
Attachments: Flood Hazard Development Permit application 10-13-2013.pdf; 3091.02 2013.10.13-Height and Flood Hazard Development permit Application Cover.pdf; scan 449.pdf; Building height cross section diagram.pdf

Marge,

Please see the attached information for your review and consideration. Please advise if you need any further information pertaining to the building's compliance with the WPDZ height requirements and Flood Hazard Permit application.

thanks

Stephen Bushey PE | *Senior Principal Engineer*

FAY, SPOFFORD & THORNDIKE

formerly DeLuca Hoffman Associates

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sbushey@fstinc.com | www.fstinc.com

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FLOOD HAZARD DEVELOPMENT PERMIT APPLICATION

Portland, Maine

(All applicants must complete entire application)
[60.3(e)]

Application is hereby made for a Flood Hazard Development Permit as required under Article II of the Floodplain Management Ordinance of Portland, Maine, for development as defined in said ordinance. This permit application does not preclude the need for other municipal permit applications.

Owner: New Yard LLC. (Phyllis Sprague Jr) Address: 58 Fore St, Portland

Ph. No: 207-774-1067

Applicant/Agent: STEVE BUSHEY Address: 778 Maine St, So. Portland

Ph. No: (207) 775-1121

Contractor: LEGACY BUILDING SOLUTIONS Address: 19500 COUNTY RD 142 South Haven MN 55830

Ph. No: 320-259-7126

LEGAL DESCRIPTION

Is this lot a part of a subdivision? Yes No If yes, give the name of the subdivision and lot number:

Subdivision: _____ Lot #: _____

Tax Map: 59-A-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Lot #: _____

Address: 40 West Commercial St / 520 Commercial St
Street/Road Name

Zip Code: 04101

General explanation of proposed development: CONSTRUCTION of 120'-0" x 160'-6" Tension Fabric building - And related sitework

Estimated value of improvements: \$1,600,000

OTHER PERMITS

Are other permits required from State or Federal Jurisdictions? Yes No
If yes, are copies of these permits attached? Yes No Not Applicable (previously submitted)

Federal and State Permits may include but not limited to: ME/DEP/Natural Resource Protection Act, Site Location of Development Act, Metallic Mineral Exploration, Advanced Exploration and Mining; USACE/Section 9 & 10 of the Rivers and Harbors Act/ Section 404 of the Clean Water Act; Federal Energy Regulation Commission.

This Section to be completed by Municipal Officials

Date Submitted	Fee Paid	Reviewed by CEO	Reviewed by Planning Board
Permit Issued by			Date

(This section to be completed by Municipal Official)

LOCATION: _____

Flooding source (name of river, pond, ocean, etc.) Creek / Lake / Pond

VE-30 Zone VE Zone AE Zone AE-30 Zone A Zone A-2

FLOODWAY (1/2 width of floodplain in A Zone)

If proposed development is in AE or AE-30 Zone and no cross section is available in the Flood Insurance Study please note the nearest Cross Section Reference and Elevation at Base Flood. Nearest Cross Section _____

Cross Section _____ Base Flood Elevation _____

Above Site _____ Above Site _____

Below Site _____ Below Site _____

Base Flood Elevation (BFE) at the site 10 No V.D. Required New Construction or Substantial Improvement

Basis of A Zone Site Determination:

From a Federal Agency FSCS US DAWRS FSNAP Other LEANS MAPS

From a State Agency FIMD Other _____

Established by Professional Land Surveyor _____

Established by Professional Engineer FROTH FETV Other Other _____

From Unknown Source _____

Other Explain _____

VAULT:

If the development involves improvements to an existing structure, the Market Value of existing structure: \$ _____

New development or Substantial Improvement Minor improvement or addition to existing development

TYPE OF DEVELOPMENT

Check the appropriate box to the left for the type(s) of development requested, and complete information for each applicable line:

- | | | | |
|--|-----------------------|--|-----------------|
| <input type="checkbox"/> 1. Residential Structure | Dimensions | | Cubic Yards |
| <input type="checkbox"/> 1a. New Structure | _____ | | _____ |
| <input type="checkbox"/> 1b. Add to Structure | _____ | | _____ |
| <input type="checkbox"/> 1c. Renovations/other changes | _____ | | _____ |
| <input checked="" type="checkbox"/> 2. Non-Residential Structure | | | |
| <input checked="" type="checkbox"/> 2a. New structure | <u>120' x 160'-6"</u> | | |
| <input type="checkbox"/> 2b. Add to Structure | _____ | | |
| <input type="checkbox"/> 2c. Renovations/other changes | _____ | | |
| <input type="checkbox"/> 2d. Floodproofing | _____ | | |
| <input type="checkbox"/> 3. Water Dependent use: | | | Number of Acres |
| <input type="checkbox"/> 3a. Dock | _____ | | _____ |
| <input type="checkbox"/> 3b. Pier | _____ | | _____ |
| <input type="checkbox"/> 3c. Boat Ramp | _____ | | _____ |
| <input type="checkbox"/> 3d. Other | _____ | | _____ |
| <input type="checkbox"/> 4. Paving | _____ | | |
| | | <input type="checkbox"/> 5. Filling ¹ | _____ |
| | | <input type="checkbox"/> 6. Dredging | _____ |
| | | <input type="checkbox"/> 7. Excavation | _____ |
| | | <input type="checkbox"/> 8. Leves | _____ |
| | | <input type="checkbox"/> 9. Drilling | _____ |
| | | <input type="checkbox"/> 10. Mining: | _____ |
| | | <input type="checkbox"/> 11. Dam; Water surface to be created | _____ |
| | | <input type="checkbox"/> 12. Water Course Alteration | |
| | | Detailed description must be attached with copies of all applicable state and federal permits. | |
| | | <input type="checkbox"/> 13. Other: Explain _____ | |

¹Certain prohibitions apply in Velocity Zones

Attachment and Site Plan - drawn to scale with north arrow

- Show property boundaries, floodway and floodplain lines.
- Show dimensions of the lot.
- Show dimensions and location of existing and/or proposed development on the site.
- Show areas to be cut and filled.
- For New Construction or Substantial Improvement, also include existing grade elevations done by a Professional Land Surveyor, Architect or Engineer.
- For New Construction or Substantial Improvement, attach statement describing in detail how each applicable development standard in Article VI will be met.

Special Note: Substantial Improvement is defined as any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. Please refer to the floodplain management ordinance, Article XIII, for more complete definitions of New Construction and Substantial Improvement.

Structures in Velocity Zones are not permitted on fill or excavations. Structures must be built on open foundation systems, i.e., columns, piles, posts. (Article VI §L)

The Applicant Understands and agrees that:

- The permit applied for, if granted, is issued on the representations made herein;
- Any permit issued may be revoked because of any breach of representation;
- Once a permit is revoked all work shall cease until the permit is reissued or a new permit is issued;
- Any permit issued on this application will not grant any right or privilege to erect any structure or use any premises described for any purposes or in any manner prohibited by the ordinances, codes, or regulations of the municipality;
- The applicant hereby gives consent to the Code Enforcement Officer to enter and inspect activity covered under the provisions of the Floodplain Management Ordinance;
- If issued, the permit form will be posted in a conspicuous place on the premises in plain view and;
- If issued, the permit will expire if no work is commenced within 180 days of issuance.

I hereby certify that all the statements in, and the attachments to this application are a true description of the existing property and the proposed development project.

Owner _____ Date _____
signature

or

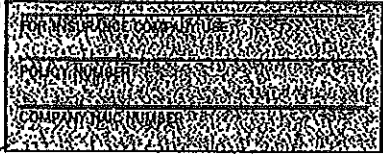
Authorized Agent Stephen Burkey Date 10/13/13
signature

National Flood Insurance Program

FLOODPROOFING CERTIFICATE

FOR NON-RESIDENTIAL STRUCTURES

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 New Yard LLC	
STREET ADDRESS (including Apt., Unit, Suite, and/or Bldg. Number) OR NO., ROUTE AND BOX NUMBER 58 Fore Street	
OTHER DESCRIPTION (Lot and Block Numbers, etc.) RE: 40 WEST COMMERCIAL / 520 COMMERCIAL	
CITY Portland	
STATE MAINE	ZIP CODE 04101

SECTION I FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

Provide the following from the proper FIRM:

COMMUNITY NUMBER	PARCEL NUMBER	SURF	DATE OF FIRM INDEX	FIRM ZONE	BASE FLOOD ELEVATION (On AD Zones, Use Depth)
230051	16	B	December 8, 1998	A-2	ele 10

SECTION II FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect)

Floodproofing Design Elevation Information:

Building is floodproofed to an elevation of **13.0** feet NGVD. (Elevation datum used must be the same as that on the FIRM.)

Height of floodproofing on the building above the lowest adjacent grade is **13.0** feet.

(NOTE: For insurance rating purposes, the building's floodproofed design elevation must be at least one 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.)

SECTION III CERTIFICATION (By Registered Professional Engineer or Architect)

Non-Residential Floodproofed Construction Certification:

I certify that, based upon development and/or review of structural design, specifications, and plans for construction, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

The structure, together with attendant utilities and sanitary facilities, is watertight to the floodproofed design elevation indicated above, with walls that are substantially impervious to the passage of water.

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 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.

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

Copies should be made of this Certificate for: 1) community official, 2) insurance agent/company, and 3) building owner.