U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

## ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-9.


B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
$\boxtimes$ FIS Profile $\quad \square$ FIRM $\square$ Community Determined $\quad \square$ Other (Describe)
B11. Indicate elevation datum used for BFE in Item B9: $\square$ NGVD $1929 \quad \boxtimes$ NAVD $1988 \square$ Other (Describe)
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? —— $\square$ Yes $\square$ No Designation Date $\qquad$ $\square$ CBRS
$\square$ OPA

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on:
$\square$ Construction Drawings*
Building Under Construction*
区 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. Use the same datum as the BFE.
Benchmark Utilized OPUS Report for CP \#500 Vertical Datum NAVD88
Conversion/Comments $\qquad$
Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) $1136 . \underline{8}$
$\boxtimes$ feet $\square$ meters (Puerto Rico only)
b) Top of the next higher floor
n/a. $\square$ feetmeters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only)
d) Attached garage (top of slab)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)
f) Lowest adjacent (finished) grade next to building (LAG)
$\qquad$ $\square$ feet
$1136 . \underline{2}$ feetmeters (Puerto Rico only)
1136.2
1136.3 $\boxtimes$ feet $\square$ meters (Puerto Rico only)
$1134.9 \quad$ feet $\square$ meters (Puerto Rico only)
g) Highest adjacent (finished) grade next to building (HAG)
$1136.2 \boxtimes$ feetmeters (Puerto Rico only)
h) Lowest adjacent grade at lowest elevation of deck or stairs, including 1134.4 $\boxtimes$ feetmeters (Puerto Rico only)

## 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. $\boxtimes$ Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? $\boxtimes$ Yes $\square$ No

| Certifier's Name Steven M. Morren |  | License Number | 1600 |  |
| :--- | :--- | :--- | :--- | :--- |
| Title President | Company Name | Survey Solutions Inc. |  |  |
| Address 229 Cindy Ave. | City |  |  |  |
| Signature | Sorman | State OK | ZIP Code | 73071 |



## SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.
Comments Method of Lat/Long was GPS; Lowest Machinery Servicing Structure was A/C Unit; Lowest adjacent grade at lowest elevation of deck or stairs was at rear steps to rear deck; Benchmark was established by OPUS report ;

Pages attached: 2 pages of pictures; OPUS Report; Firmette; Floodway Data; Vicinity Map; Detail Map.

| Signature | Alaren $B$. Momen | Digitally signed by Steven M. Morren Date: 2013.05.27 09:53:57-05'00' | Date | 区 | Check here if attachments |
| :---: | :---: | :---: | :---: | :---: | :---: |

## 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 $\qquad$ . $\square$ feet $\square$ meters $\square$ above or $\square$ below the HAG. b) Top of bottom floor (including basement, crawlspace, or enclosure) is $\quad \square$. $\square \square$ feet $\square$ meters $\square$ above or $\square$ below the LAG.

E2. For Building Diagrams 6-9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages $8-9$ of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is $\quad \square$ feet $\square$ meters $\square$ above or $\square$ below the HAG.
E3. Attached garage (top of slab) is $\quad \square$ feet $\square$ meters $\square$ above or $\square$ below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is $\quad \square . \square \square$ feet $\square$ meters $\square$ above or $\square$ 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? $\square$ Yes $\square$ No $\square$ 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's or Owner's Authorized Representative's Name

| Address | City | State |
| :--- | :---: | :---: |
| Signature | Date | Telephone |
| Comments |  |  |

Check here if attachments

## SECTION G - COMMUNITY INFORMATION (OPTIONAL)



Comments

## Building Photographs

See Instructions for Item A6.

| Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <br> 3105 Millbury Road | For Insurance Company Use: |
| :--- | :--- |
| City Norman State OK ZIP Code 73071 | Company NAIC Number |

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two 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." If submitting more photographs than will fit on this page, use the Continuation Page, following.


## Building Photographs

## Continuation Page

|  | For Insurance Company Use: |
| :--- | :--- |
| Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <br> 3105 <br> Millbury Road | Policy Number |
| City Norman State OK ZIP Code 73071 | 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."


Right Side View (South Side) 5/15/2013


Digitally signed by Steven M.
Morren
Date: 2013.05.27 09:55:08-05'00'



| FLOODING SOURCE |  | FLOODWAY |  |  | BASE FLOOD <br> WATER SURFACE ELEVATION (FEET NAVD) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CROSS SECTION | DISTANCE ${ }^{1}$ | WIDTH <br> (FEET) | SECTION AREA (SQUARE FEET) | MEAN <br> VELOCITY <br> (FEET PER <br> SECOND) | REGULATORY <br> (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD BB) | WITH <br> FLOODWAY <br> (FEET NAVD BB) | INCREASE (FEET) |
| Rock Creek <br> A B C D E F G H I J K L M N | $\begin{gathered} 1,275 \\ 1,850 \\ 2,275 \\ 2,775 \\ 3,400 \\ 3,825 \\ 7,500 \\ 8,525 \\ 9,410 \\ 10,600 \\ 11,320 \\ 11,940 \\ 12,850 \\ 13,950 \end{gathered}$ | $\begin{gathered} 600 \\ 270 \\ 270 \\ 170 \\ 190 \\ 140 \\ 90 \\ 130 \\ 80 \\ 120 \\ 80 \\ 190 \\ 100 \\ 140 \end{gathered}$ | $\begin{gathered} 1,870 \\ 930 \\ 990 \\ 650 \\ 780 \\ 820 \\ 700 \\ 1,350 \\ 340 \\ 460 \\ 490 \\ 1,313 \\ 320 \\ 320 \end{gathered}$ | $\begin{aligned} & 2.0 \\ & 4.0 \\ & 3.8 \\ & 5.7 \\ & 4.8 \\ & 4.2 \\ & 5.0 \\ & 2.6 \\ & 7.1 \\ & 5.3 \\ & 5.0 \\ & 1.1 \\ & 3.7 \\ & 3.7 \end{aligned}$ | $\begin{aligned} & 1.111 .5 \\ & 1.112 .0 \\ & 1.113 .6 \\ & 1,117.4 \\ & 1,121.4 \\ & 1,124.0 \\ & 1,134.4 \\ & 1.138 .0 \\ & 1.143 .3 \\ & 1,148.7 \\ & 1.153 .0 \\ & 1.158 .2 \\ & 1,158.5 \\ & 1,165.5 \end{aligned}$ | $\begin{aligned} & 1,111.5 \\ & 1,1120 \\ & 1,113.6 \\ & 1,117.4 \\ & 1,121.4 \\ & 1,124.0 \\ & 1,134.4 \\ & 1,138.0 \\ & 1,143.3 \\ & 1,148.7 \\ & 1,153.0 \\ & 1,1582 \\ & 1,1585 \\ & 1,1655 \end{aligned}$ | $\begin{aligned} & 1,112.5 \\ & 1,113.0 \\ & 1,114.6 \\ & 1,118.0 \\ & 1,122.1 \\ & 1,124.8 \\ & 1,135.3 \\ & 1,139.0 \\ & 1,144.2 \\ & 1,149.4 \\ & 1,154.0 \\ & 1,159.0 \\ & 1,158.3 \\ & 1,166.2 \end{aligned}$ | $\begin{aligned} & 1.0 \\ & 10 \\ & 1.0 \\ & 0.6 \\ & 0.7 \\ & 0.8 \\ & 0.9 \\ & 1.0 \\ & 0.9 \\ & 0.7 \\ & 1.0 \\ & 08 \\ & 08 \\ & 0.7 \end{aligned}$ |

${ }^{1}$ Feet above confluence vith the Little River

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODWAY DATA


Google earth
miles
km
-1

```
                        CP 500
OPUS Report 3105 Mil|bury Rd. pt #500 O9NO2W17
Book M-5 Set 40d Nail
SIant HI: 1.834m measured
GPS Make Topcon Hiper II
ARP: 1.77664m calcul ated
STATE PLANE COORDINATES SPC (3502 OK S)
converted to feet
N: 700319.0354'
E: 2136542.3786'
El: 1135.7480'
```



Digitally signed by Steven M．Morren
Date：2013．05．27
09：58：03－05＇00＇

FILE： $\log 0515$ n．tps OP1369499218125

```
NGS OPUS SOLUTION REPORT
```

ニニニニニニニニニニニニニニニニニニニニニニニ

All computed coordinate accuracies are listed as peak－to－peak values． For additional information：http：／／www．ngs．noaa．gov／OPUS／about．jsp\＃accuracy

USER：surveysol utions＠cox．net DATE：May 25， 2013
RINEX FILE： $\log 0135 \mathrm{n} .130$
TIME：16：28：03 UTC



IGSO8（EPOCH： 2013.3688 ）

ORTHO HGT：$\quad 346.176(\mathrm{~m}) \quad 0.027(\mathrm{~m})$

$$
\left[\begin{array}{c}
318.429(\mathrm{~m}) \\
{[\text { NAVD88 (Computed using GEOID12A) ] }}
\end{array}\right.
$$

UTM COORDI NATES
STATE PLANE COORDI NATES
UTM（Zone 14）
 3902590.840

SPC（ 3502 OK S） 394169.746
213457.242
61218.117
$0.90226717 \quad 0.31946656$
$0.99984910 \quad 1.00000463$
$\begin{array}{ccc}\text { Combined Factor } \quad 0.99979895 & 0.99995447\end{array}$
US NATIONAL GRID DESI GNATOR：14SPE4216902590（NAD 83）
BASE STATIONS USED

| PID | ON | BASE STATIONS USED LATI TUDE | LO |  |
| :---: | :---: | :---: | :---: | :---: |
| DE7174 | OKTE TECUMSEH CORS ARP | N351536．668 | W0 965352.107 | 49087.1 |
| DG9755 | OKAO ANADARKO CORS ARP | N350435．045 | W0981445．200 | 76336.0 |
| AF9529 | PRCO PURCELL CORS ARP | N345847．495 | W0973109．264 | 31574.6 |

NEAREST NGS PUBLISHED CONTROL POINT
FJ0337 22 B 8 N351449．W0972735．2301．1
This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used．

