

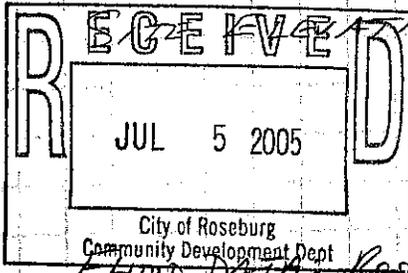
**WOOD ENGINEERING, INC.**

311 Smethwick Drive  
UMPUA, OREGON 97486  
Phone (541) 459-2994

Add to Flood Book

FLOODWAY CONSTRUCTION

Job KERWIN DOUGHTON  
345 W. RIVERSIDE, ROSEBURG  
Sheet No. 1 of 2  
Calculated by ENW Date 5-2-05



CERTIFICATE OF ELEVATION DATED 6-3-04  
BY KRISTIAN DE GROOT, PLS 1941  
SITE ELEVATION: 447.4'  
FLOOD ELEVATION: 447.9'

ROSEBURG FLOOD STUDY

STATION R - 448.0'  
STATION Q = 447.3'  $\Delta = 0.7'$   
SITE @ 0.6' ABOVE STATION Q DIFFERENCE = 0.6'  
RATIOINE THE CHANGE FROM STATION Q TO SITE AT 6/7.

STATION Q - FLOODWAY WIDTH = 763'; AREA = 23,400 ft<sup>2</sup>; V = 5.6 fps.  
STATION R - " " = 1527'; " = 29,300 ft<sup>2</sup>; V = 4.5 fps

RATIOINE WIDTH, AREA, & VELOCITY BASED UPON 6/7 OF DIFFERENCES.

SITE WIDTH = 763' + 6/7(764) = 763 + 655 = 1418'  
SITE FLOODWAY AREA = 23,400 ft<sup>2</sup> + 6/7(5900) = 23400 + 5057 = 28,457 ft<sup>2</sup>  
SITE VELOCITY = 5.6' - 6/7(1.1) = 5.6 - 1 = 4.6 ft<sup>2</sup>

MAXIMUM FLOODWAY AREA = 448.2 + 6/7(0.9) = 448.5' @ SITE

AVERAGE FLOOD DEPTH @ SITE =  $\frac{\text{FLOODWAY AREA}}{\text{FLOODWAY WIDTH}} = \frac{28,457 \text{ ft}^2}{1418'} = 20.07'$

CONSIDERING SITE PROPOSED REVISIONS -

1ST QUOTE ESTIMATE = CUT AREAS = 5781'  
FILL AREAS = 4442' DIFF = 1339' CUT.  
CUT PROVIDES ADDED FLOODWAY AREA.

2ND ESTIMATE FOLLOWS, NEXT PAGE -



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FLOODWAY CONSTRUCTION  
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345 W. RIVERSIDE, ROSEBURG  
 Sheet No. 2 of 2  
 Calculated by SM Date 5-16-05

NEW SECTIONS ACROSS PROPERTY

SECTION A - FILL  $\approx 29 \text{ ft}^2$   
 CUT  $\approx 42 \text{ ft}^2$

DIFF =  $13 \text{ ft}^2$  CUT

SECTION B - FILL  $\approx 40.4 \text{ ft}^2$   
 CUT  $\approx 49 \text{ ft}^2$

DIFF =  $8.6 \text{ ft}^2$  CUT

AVERAGE DIFFERENCE =  $10.8 \text{ ft}^2$  CUT (ADDED AREA TO FLOODWAY)  
 ( $\approx 11 \text{ ft}^2$ )

NEW FLOODWAY AREA @ SITE =  $28457 + 11 = 28468 \text{ ft}^2$

CHANGE IN FLOODWAY AREA BY HOUSE ADDITION =  $3' \text{ WIDTH} \times 4' \text{ DEEP}$   
 $= 12 \text{ ft}^2$  (LESS AREA IN FLOODWAY)

NET CHANGE IN AREA OF FLOODWAY

LATEST CALCULATIONS =  $12 \text{ ft}^2 - 11 \text{ ft}^2 = 1 \text{ ft}^2$

NEW FLOODWAY AREA =  $28457 - 1 = 28456 \text{ ft}^2$

NEW FLOODWAY WIDTH =  $1418' - 3' = 1415'$

AVERAGE FLOODWAY DEPTH AFTER PROPOSED REVISIONS

$$\frac{28,456 \text{ ft}^2}{1415'} = 20.11 \text{ ft}$$

DIFFERENCE IN FLOODWAY DEPTH =  $20.11' - 20.07' = 0.04'$

MAXIMUM FLOOD DEPTH @ SITE =  $448.2 + \frac{6}{12}(0.04) = 448.5'$  (PAGE 1)

FLOOD DEPTH AFTER PROPOSED SITE MODIFICATIONS =

CURRENT FLOOD DEPTH =  $447.9' + 0.04' = 447.94' \approx 448'$

LESS THAN MAX ALLOWABLE FLOOD DEPTH @  $448.5'$   $\therefore$  OK.

# ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-7.

<b>SECTION A - PROPERTY OWNER INFORMATION</b>			For Insurance Company Use:	
BUILDING OWNER'S NAME <b>KERWIN L. &amp; MARILYN DOUGHTON</b>			Policy Number	
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO. <b>345 WEST RIVERSIDE DRIVE</b>			Company NAIC Number	
CITY <b>ROSEBURG</b>	STATE <b>OR</b>	ZIP CODE <b>97470</b>		
PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <b>LOT 6, BLOCK D, LAURELWOOD ADDITION TO THE CITY OF ROSEBURG 27-06-13DD-07900</b>				
BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.) <b>RESIDENTIAL</b>				
LATITUDE/LONGITUDE (OPTIONAL) (##° - ##' - ###.###" or ###.#####")		HORIZONTAL DATUM: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983		SOURCE: <input type="checkbox"/> GPS (Type): _____ <input type="checkbox"/> USGS Quad Map <input type="checkbox"/> Other: _____

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER <b>CITY OF ROSEBURG 410067</b>		B2. COUNTY NAME <b>DOUGLAS COUNTY</b>		B3. STATE <b>OR</b>	
B4. MAP AND PANEL NUMBER <b>0005</b>	B5. SUFFIX <b>E</b>	B6. FIRM INDEX DATE	B7. FIRM PANEL EFFECTIVE/REVISED DATE <b>4-21-1998</b>	B8. FLOOD ZONE(S) <b>AE</b>	B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding) <b>447.90</b>

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.  
 FIS Profile  FIRM  Community Determined  Other (Describe): \_\_\_\_\_  
 NAVD 1988  Other (Describe): \_\_\_\_\_

B11. Indicate the elevation datum used for the BFE in B9:  NGVD 1929

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

## 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. Building Diagram Number 2 (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)

C3. 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 C3.-a-i below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.  
 Datum NGVD'29 Conversion/Comments N/A  
 Elevation reference mark used LILSIDE Does the elevation reference mark used appear on the FIRM?  Yes  No

- a) Top of bottom floor (including basement or enclosure) **440. 11 ft (m)**
- b) Top of next higher floor **448. 23 ft (m)**
- c) Bottom of lowest horizontal structural member (V zones only) **N/A. \_\_\_ ft (m)**
- d) Attached garage (top of slab) **N/A. \_\_\_ ft (m)**
- e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area) **445. 8 ft (m)**
- f) Lowest adjacent (finished) grade (LAG) **443. 8 ft (m)**
- g) Highest adjacent (finished) grade (HAG) **447. 4 ft (m)**
- h) No. of permanent openings (flood vents) within 1 ft. above adjacent grade **N/A**
- i) Total area of all permanent openings (flood vents) in C3.h **N/A** sq. in. (sq. cm)



RENEWAL 12/31/05

## 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 in Sections A, B, and C 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	<b>KRISTIAN O. DEGROOT</b>	LICENSE NUMBER	<b>OREGON PLS NO. 1941</b>
TITLE	<b>PROFESSIONAL LAND SURVEYOR</b>	COMPANY NAME	<b>BTS ENGINEERING &amp; SURVEYING, INC.</b>
ADDRESS	<b>431 SE MAIN STREET</b>	CITY	<b>ROSEBURG</b>
		STATE	<b>OR</b>
		ZIP CODE	<b>97470</b>
SIGNATURE	<i>Kristian O. DeGroot</i>	DATE	<b>6-03-2004</b>
		TELEPHONE	<b>541-673-0966</b>

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			For Insurance Company Use:
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO. 345 WEST RIVERSIDE DRIVE			Policy Number
CITY ROSEBURG	STATE OR	ZIP CODE 97470	Company NAIC Number

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

by both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

COMMENTS  
 ELEVATIONS ARE BASED ON DCSO BENCHMARK LILSIDE, NGVD'29 ELEV. = 464.80'. ELEVATION C 3(a) IS THE BASEMENT FLOOR ELEVATION.  
 ELEVATION C 3(b) IS THE MAIN FLOOR ELEVATION. ELEVATION C 3(e) IS THE ELEVATION OF A HEAT PUMP/ AIR CONDITIONING UNIT.

THE FLOOR ELEVATION OF A DETACHED GARAGE = 444.72'

Check here if attachments

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

For Zone AO and Zone A (without BFE), complete Items E1 through E4. If the Elevation Certificate is intended for use as supporting information for a LOMA or LOMR-F, Section C must be completed.

- E1. Building Diagram Number \_\_ (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)
- E2. The top of the bottom floor (including basement or enclosure) of the building is \_\_ ft.(m) \_\_ in.(cm)  above or  below (check one) the highest adjacent grade. (Use natural grade, if available).
- E3. For Building Diagrams 6-8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building is \_\_ ft.(m) \_\_ in.(cm) above the highest adjacent grade. Complete items C3.h and C3.i on front of form.
- E4. The top of the platform of machinery and/or equipment servicing the building is \_\_ ft.(m) \_\_ in.(cm)  above or  below (check one) the highest adjacent grade. (Use natural grade, if available).
- E5. For 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, C (Items C3.h and C3.i only), 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, C, and E are correct to the best of my knowledge.*

PROPERTY OWNER'S OR OWNER'S AUTHORIZED REPRESENTATIVE'S NAME

ADDRESS	CITY	STATE	ZIP CODE
SIGNATURE	DATE	TELEPHONE	
COMMENTS			

Check here if attachments

**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.

- G1.  The information in Section C was taken from other documentation that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by state or local 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-G9) is provided for community floodplain management purposes.

G4. PERMIT NUMBER	G5. DATE PERMIT ISSUED	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED
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G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building is: \_\_\_\_\_ ft.(m) Datum: \_\_\_\_\_

G9. BFE or (in Zone AO) depth of flooding at the building site is: \_\_\_\_\_ ft.(m) Datum: \_\_\_\_\_

LOCAL OFFICIAL'S NAME	TITLE
COMMUNITY NAME	TELEPHONE
SIGNATURE	DATE
COMMENTS	

Check here if attachments

Edward N. Wood, P.E.

Wood Engineering, Inc.

CIVIL - MECHANICAL - STRUCTURAL

311 Smethwick Drive

Umpqua, Oregon 97486

(541) 459-2994

May 25, 2005

Mr. Lester Wilson  
Planning Department  
City of Roseburg  
900 S.E. Douglas  
Roseburg, OR 97470

Re: High water bank location, 345 W. Riverside, Roseburg.

Dear Mr. Wilson:

At the meeting we attended this afternoon, you requested that I determine the distance from the high water bank of the South Umpqua River at the above referenced address.

Immediately after our meeting ended, I accompanied the applicant, Mr. Kerwin Doughton, to his homesite at the referenced address. Standing in the rear yard, Mr. Doughton pointed to some large diameter fir trees just beyond his back fence. He stated that they were on the approximate property line. The high bank of the river can be identified by small trees at the edge of the brush line. The distance from Mr. Doughton's East property line to the Western "High Bank" line of the river is approximately seventy-five (75) feet.

The improvement (deck) proposed in Mr. Doughton's application will lie outside the Riparian Set-back of Fifty (50) feet from the "High Bank".

If I may be of further assistance in this matter, Please feel free to call upon me.

Sincerely,

  
Edward N. Wood, P.E.



c: Mr. K. Doughton

