## **432 Elements**

## 432.a. Development limitations (DL)

432.a. Develop		(DL)					
Regulations tha	t prohibit fill (DL1a)					=	
Area of the regul	ation prohibiting fill (a	DL1a	)			- -	
Impact adjustme	nt ratio = rDL1a	=	aDL1a	=		=	
			aSFHA			- -	
Verified ratio =	No. sites passed	=				= _	
	No. sites checked						
cDL1a = DL1a x	rDL1a x Verified ratio	)				cDL1a =	
Regulations tha	t protect floodplain	stora	ige (DL1b#	1)		= _	130
Area of the regul	ation prohibiting fill (a	DL1b	#1)				
Impact adjustme	nt ratio = rDL1b#1	=	aDL1b#1	=	1,900.08	=	0.10
			aSFHA		19,008.14	- -	
Verified ratio =	Number passed	=	5			= _	1.00
	Number sampled		5				
cDL1b#1 = DL1b	#1 x rDL1b#1 x Verif	ied ra	tio			cDL1b#1 =	13.00
Regulations tha	t protect floodplain	stora	ige (DL1b#	2)		= _	
Area of the regul	ation prohibiting fill (a	DL1b	#2)				
Impact adjustment ratio = rDL1b#2 = aDL1b#2 = =							
			aSFHA				
Verified ratio =	Number passed	=				= _	
	Number sampled						
cDL1b#2 = DL1b#2 x rDL1b#2 x Verified ratio cDL1b#2 =							
cDL1b = cDL1b#	1 + cDL1b#2					cDL1b =	13.00
Regulations that prohibit buildings (DL2)							
Area of the regulations that prohibit buildings (aDL2)							
Impact adjustment ratio = rDL2 = aDI		aDL2	=		= _		
			aSFHA				
Verified ratio =	No. sites passed	=				= _	
	No. sites checked						_
cDL2 = DL2 x rDL2 x Verified ratio						cDL2 =	

#### Regulations that prohibit outdoor storage of materials (DL3a)

= \_\_\_\_\_

Area of the regulations that prohibit outdoor storage of materials (aDL3a)

= \_\_\_\_

Verified ratio = No. sites passed = No. sites checked

Number sampled

**=** \_\_\_\_\_

cDL3a = DL3a x rDL3a x Verified ratio

cDL3a = \_\_\_\_

#### Regulations that prohibit storage of hazardous materials (DL3b)

= \_\_\_\_\_

Area of the regulations that prohibit storage of hazardous materials (aDL3b)

= \_\_\_\_

= \_\_\_\_

cDL3b = DL3b x rDL3b x Verified ratio

cDL3b = \_\_\_\_\_

#### Regulations of indoor storage of hazardous materials > BFE (DL3c)

= \_\_\_\_\_

Area of the regulations that require indoor storage of hazardous materials (aDL3c)

= \_\_\_\_

Verified ratio =

= \_\_\_\_\_

cDL3c = DL3c x rDL3c x Verified ratio

cDL3c = \_\_\_\_\_

cDL = cDL1a + cDL1b + cDL2 + cDL3a + cDL3b + cDL3c

cDL = 13.00

#### 432.b. Freeboard (FRB)

#### Floodplain regulations that require freeboard (FRB#1)

= 110

Area of floodplain regulations that require freeboard (aFRB#1)

Impact adjustment ratio = rFRB#1		=	aFRB#1 aSFHA	=	1,900.08	=	0.10
Verified ratio =	Number passed  Number sampled	=	10		19,000.14	= ,	1.00
cFRB#1 = FRB#	1 x rFRB#1 x Verified	d ratio	10			cFRB#1 = _	11.00
Floodplain regu	lations that require	freeb	oard (FRB	<b>#2)</b>		=	28
Area of floodplain	n regulations that req	uire fr	eeboard (aF	FRB	#2)		
Impact adjustme	nt ratio = rFRB#2	=	aFRB#2 aSFHA	=	6,294.69 19,008.14	= .	0.33
Verified ratio =	Number passed	=	1			=	1.00
	Number sampled		1				
cFRB#2 = FRB#	2 x rFRB#2 x Verified	d ratio				cFRB#2 =	9.24
Floodplain regulations that require freeboard (FRB#3)							
Area of floodplain regulations that require freeboard (aFRB#3)							
impact adjustine	nt ratio = rFRB#3	=	aFRB#3 aSFHA	=		=	
Verified ratio =	Number passed	=	aorria			=	
	Number sampled					•	
cFRB#3 = FRB#	3 x rFRB#3 x Verified	d ratio				cFRB#3 =	
cFRB = cFRB#1	+ cFRB#2 + cFRB#3	3				cFRB =	20.24
432.c. Foundation protection (FDN)							
Regulations that	protect foundations (	(FDN)				=	
Area of floodplain regulations that require freeboard (aFDN)							
Area of V Zone floodplain (aVZone)							
	loodplain (aVZone)						

aVZone

#### 432.d. Cumulative substantial improvements (CSI)

Substantial improvements to buildings counted cumulatively (CSI1) = 
$$\frac{40}{10}$$
 Reconstruction/repairs to damaged buildings counted cumulatively (CSI2) =  $\frac{40}{10}$  Regulations qualifying ICC insurance coverage for rep losses (CSI3) =  $\frac{20}{10}$  CSI = CSI1 + CSI2 + CSI3 + CSI4 CSI =  $\frac{90}{10}$ 

Area of cumulative substantial improvement rules (aCSI)

Number sampled

Lower substantial improvement threshold (LSI)

Impact adjustment ratio = rCSI = 
$$\frac{aCSI}{aSFHA}$$
 =  $\frac{7,798.19}{19,008.14}$  =  $\frac{0.41}{19,008.14}$   
Verified ratio = Number passed = 1 = 1.00

$$cCSI = CSI \times rCSI \times Verified ratio$$
  $cCSI = 36.90$ 

### 432.e. Lower substantial improvements threshold (LSI)

### 432.f. Protection of critical facilities (PCF)

Verified ratio =	No. sites passed	=	 = _	
	No. sites checked		_	

## Regs protecting critical facilities from 500-year flood + 1 ft (PCF2)

Area of protected critical facilities (aPCF2)

Area of the 500 year floodplain (a500)

$$cPCF = cPCF1 + cPCF2$$
  $cPCF =$ 

#### 432.g. Enclosure limits (ENL)

## Regulations prohibiting enclosure/restricting enclosure size (ENL1,2)

Area of enclosure limits (aENL1,2)

# Regs that require non-conversation agreements to be recorded (ENL3) =

Area of enclosure limits (aENL3)

## 432.h. Building code (BC)

## Adoption of current editions of the appropriate building codes (BC1)

IRC - International Residential Code	= _	20	
Other - Plumbing, Mechanical, Fuel and Gas, Private Sewage Disposal	= _	8	
	BC1 =	48	

#### **Building Code Effectiveness Grading Schedule (BCEGS) classification (BC2)**

$$cBC = BC1 + BC2$$
  $BC = 68$ 

### 432.i. Local drainage protection (LDP)

Regulations requiring lowest floor of buildings to be above the street (LDP1)	= _	40			
Regulations requiring a site drainage plan (LDP2)	= _				
Regulations providing positive drainage away from building sites (LDP3)	= _				
Regulations requiring increased volume or runoff to be kept on site (LDP4)					
LDP = (LDP1 or LDP2 or LDP3) + LDP4	LDP = _	40			
Verified ratio = Number passed = 1	_	1.00			

$$cLDP = LDP \times Verified ratio$$
  $cLDP = 40.00$ 

## 432.j. Manufactured home parks (MHP)

#### 432.k. Coastal A Zones (CAZ)

$$CAZ = CAZ1 + CAZ2$$

Verified ratio = Number passed = \_\_\_\_ = \_\_\_

 $cCAZ = CAZ \times rCAZ \times Verified ratio$  cCAZ =

#### 432.I. Special flood-related hazards regulations (SHR)

Regulations that protect special flood-related hazards (SHR) = \_\_\_\_\_

Area of special flood-related hazard regulations (aSHR)

Impact adjustment ratio = rSHR = aSHR = \_\_\_\_ = \_\_\_ = \_\_\_

Verified ratio = Number passed = \_\_\_\_\_ = \_\_\_\_

cSHR = SHR x rSHR x Verified ratio

#### 432.m. Other higher standards (OHS)

Other higher standards (OHS) =

Area of other higher standards (aOHS)

Impact adjustment ratio = rOHS = aOHS = \_\_\_\_ = \_\_\_ = \_\_\_

Verified ratio = Number passed = \_\_\_\_\_ = \_\_\_\_

cOHS = OHS x rOHS x Verified ratio

## 432.n SMS - State-Mandated Regulatory Standards

ENL

PCF NS HSS SHR OHS \_\_\_\_ FWS MAPSH RA 4 SZ \_\_\_ OSP DR DS NFOS PUB SHOS \_\_\_\_ LID OSI WMP ESC LZ NSP WQ 20

DL

0.1 X (credit for SMS elements = 78.00

SMS = 8

#### 432.o. Regulations administration (RA)

Staff training of regulatory staff members (RA1) = \_\_\_\_25\_\_\_ Community's building department is accredited by IAS (RA2) = \_\_\_\_

Conducting 3 detailed inspections for each new building (RA3)

Verified ratio = Number passed = = Number sampled

cRA3 = RA3 x Verified ratio

Regulations that allows reinspection of buildings (RA4)

Verified ratio = Number passed = \_\_\_\_ = \_\_\_

cRA4 = RA4 x Verified ratio

Storing floodplain documents at an off-site storage location (RA5) cRA5 = \_\_\_\_5

cRA = RA1 + RA2 + RA3 + cRA4 + RA5 cRA = 30.00

#### 433 Credit Calculation

c430 = cDL + cFRB + cFDN + cCSI + cLSI + cPCF + cENL + cBC + cLDP + cMHP + cCAZ + cSHR + cOHS + cSMS + cRA c430 = 216

#### Comments:

Community: City of Palm Coast, FL

## **Activity 430 (Higher Regulatory Standards)**

DL1b in the Flood Ordinance

FRB1 - See 1st 10 ECs in Activity 310 for verification.

aDL1b and aFRB are calculated by:

aSFHA (19008.14)- aOSP (11209.95) =7798.19 - 6294.69 (Azone outside of OSP)= 1503.50 which is .08. But there is a .10 optional minimum. So I had to trick the ISAAC to take the optional minimum. So instead of entering 1503.50, I entered 1900.08.

FRB2 - They require floors to be 2' above HAG in Approx A Zones. This is worth credit per a PC Decision on 9-30-15

CSI - Credit is awarded for CSI over 10 years for both SI and SD. 20 credits awarded since any addition to a structure in SFHA is considered New Construction and must meet current codes.

UMC for BC and all SMS

#### Class 4 Prerequisites:

- (7) The community must have received and continue to maintain a classification of 4/4 or better under the BCEGS. <u>VERIFIED BCEGS RATING IS 4/3 (2014)</u>.
- (8) Activity 430 (Higher Regulatory Standards) The community must show that it enforces higher regulatory standards to manage new development in the floodplain.
- (i) The community must adopt and enforce a freeboard requirement that receives at least 100 points for FRB in Section 432.b. For this prerequisite, the value for FRB is the value before factoring in the impact adjustment. **VERIFIED.**
- (ii) The community must receive at least 700 points under the other elements of Activity 430 and under Sections 422.a, e, and f under Activity 420 (Open Space Preservation). For this prerequisite, the points are calculated after factoring in the impact adjustment. HERE ARE A TOTAL OF 994.5 TO SATISFY THIS REQUIREMENT. c430 (minus cFRB) = 196 and c420a = 855.5.
- (11) Obtain a minimum total credit of 100 points (after the impact adjustment) from one or a combination of the following elements that credit protecting natural floodplain functions: **A TOTAL OF 307 CREDITS AWARDED. SEE BELOW.**
- o 420—Natural functions open space (NFOS), 134
- o 420—Natural shoreline protection (NSP),
- o 430—Prohibition of fill (DL1), 13
- o 440—Additional map data (AMD12) natural functions layer, 14
- o 450—Managing the volume of stormwater runoff (SMR, DS) 77
- o 450—Low impact development (LID),
- o 450—Watershed management plan (WMP), credit point items 3, 5, 6, and 7, 24
- o 450—Erosion and sediment control (ESC), 10
- o 450—Water quality (WQ), 20 and

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