

## **City of Fort Collins Floodplain Review Checklist**

### **50% Development Review Submittals**

Instructions: Complete this checklist by marking all boxes that have been adequately completed. Put an “NA” next to any items that are not applicable to this particular submittal. Any boxes that are left blank and do not have an “NA” marked next to them are considered incomplete.

Date of Review:\_\_\_\_\_ Reviewer’s Name:\_\_\_\_\_

#### **Plat Map**

- ☐ The following required items are on the plat:
  - ☐ 100-year floodplain boundary
    - ☐ City
    - ☐ FEMA
  - ☐ Floodway boundary
    - ☐ City
    - ☐ FEMA
  - ☐ The benchmark number and elevation of benchmark
- ☐ These items match the FIRM. (FEMA Basin)
- ☐ These items match the Master Plan. (City Basin)
- ☐ The benchmark number and elevation match with those published in the City of Fort Collins benchmark system.

#### **Site Plan**

The following required items are on the site plan:

- ☐ 100-year floodplain boundary- FEMA and City
- ☐ 500-year floodplain boundary (if proposed structure is a “critical facility” and a 500-year floodplain is mapped)
- ☐ Floodway boundary
- ☐ Erosion buffer zones
- ☐ Restriction related to use (i.e. critical facility or no residential use of lower floor if floodproofed mixed-use structure)

**Drainage and/or Grading Plan** (or a separate Floodplain Sheet if it is too cluttered on Drainage and Grading Plan)

The following required items are on the drainage and/or grading plan:

- ☐ 100-year floodplain boundary- FEMA and City
- ☐ 500-year floodplain boundary (if proposed structure is a “critical facility” and a 500-year floodplain is mapped)
- ☐ Floodway boundary

- ☐ Erosion buffer zones
  - ☐ Cross-section locations
  - ☐ BFE lines
  - ☐ Regulatory Flood Protection Elevation for individual lots or groups of lots if structures are to be built in the floodplain.
- ☐ The floodplain and floodway boundaries are in the correct location and labeled properly.
- ☐ The cross-section and BFE lines are in the correct location and labeled properly.
- ☐ Elevations are referred to the appropriate datum:
  - ☐ FEMA basins – list in both NGVD 29 and NAVD 88
  - ☐ City basins – list only in NGVD 29
- ☐ Floodway regulations have been met.
  - ☐ No fill in the floodway unless a hydraulic analysis shows “no-rise”.
  - ☐ No manufactured homes, except in an existing park, can be placed in the floodway.
  - ☐ No changing a nonconforming non-residential or mixed use structure to a residential structure.
  - ☐ Landscaping meets requirements for no encroachment in the floodway without a hydraulic analysis to show “no-rise”.
  - ☐ No storage of materials or equipment.
- ☐ Critical facilities regulations have been met:
  - ☐ 100 year – No life safety, emergency response, or hazardous material critical facilities
  - ☐ 500 year Poudre – No life safety or emergency response critical facilities
- ☐ Any items in the floodway that can float (Example: picnic tables, bike racks, etc.) are noted as being anchored.
- ☐ Erosion Buffer Zone requirements have been met:
  - ☐ Design of any allowed development minimizes disturbance to channel bed and banks.
  - ☐ No structures allowed.
  - ☐ No additions to existing structures allowed.
  - ☐ Any fencing is split-rail design and break-away, but cabled. Must be oriented parallel to general flow direction.
  - ☐ No detention or water quality ponds.
  - ☐ No bike or pedestrian paths or trails except as required to cross streams or waterways.
  - ☐ Road, bicycle and pedestrian bridges must span erosion buffer zone.
  - ☐ No fill.
  - ☐ No outdoor storage of non-residential materials or equipment.

- ☐ No driveways or parking areas.
  - ☐ No irrigated vegetation and non-native trees, grasses, or shrubs.
  - ☐ No utilities except as necessary to cross streams or waterways.
  - ☐ No grading or excavation except as required for permitted activities in erosion buffer zone.
  - ☐ No construction traffic except as required for permitted activities in erosion buffer zone.
  - ☐ Any construction in the erosion buffer zone shows that it will not impact the channel stability.
- ☐ Any necessary floodplain modeling has been submitted and approved. All modeling must follow the City's floodplain modeling guidelines.

#### Special Poudre River Regulations

- ☐ Poudre River Floodway Regulations have been met.
  - ☐ No construction of new residential, non-residential or mixed-use structures.
  - ☐ No redevelopment of residential, non-residential or mixed-use structures.
  - ☐ No additions to residential, non-residential or mixed-use structures.
  - ☐ No fill unless hydraulic analysis shows "no-rise".
- ☐ Poudre River floodplain regulations have been met
  - ☐ No construction of new residential or mixed-use structures
  - ☐ No additions to residential structures
  - ☐ No additions to mixed-use structures if there is an expansion in the residential-use area of the structure.
  - ☐ No floatable materials on non-residential sites

#### Information Related to Structures in the Floodplain

- ☐ The regulatory flood protection elevation shown on the plans is at least 2 ft above the BFE for the Poudre River and at least 18" above the BFE for new development and redevelopment, 6" above the BFE for additions, substantial improvement and accessory structures for all other floodplains.
- ☐ A note is on the plans that the lowest floor (including basement or crawl space) and HVAC will be required to be elevated above the regulatory flood protection elevation. Non-residential structures can be floodproofed instead of elevated to the regulatory flood protection elevation.
- ☐ A typical drawing detail is included for each foundation type proposed (slab-on-grade, basement, crawl space) showing the elevation of the HVAC and lowest floor elevation (which includes bottom of the basement or crawl space) relative to the BFE.

- ☐ If garages are not going to be elevated to the regulatory flood protection elevation, then a note is included stating the following requirements:
  - ☐ There shall be 1 square inch of venting for every 1 square foot of enclosed area.
  - ☐ The bottom of the venting shall not be higher than 1 foot above grade.
  - ☐ The venting shall be on at least two sides, preferably on upstream and downstream sides. (Does not have to be divided equally).
- ☐ For manufactured homes, a note is included stating that all submittal requirements on separate sheet titled “Installation of a Mobile Home Located in a Floodplain: Submittal Requirements” shall be met.
- ☐ A note is on the plans stating that a floodplain use permit will be required for each structure and each site construction element (detention ponds, bike paths, parking lots, utilities, etc.) in the floodplain.
- ☐ A note is on the plans stating that a FEMA elevation or floodproofing certificate will be completed and approved before the CO is issued for any structures in the floodplain. This is required even if property is only in a City floodplain.

### **Drainage Report**

- ☐ The site is described as being in the floodplain. Floodplain name and if the floodplain is a FEMA or City-designated is described. Any floodway or erosion buffer zones on the site are described.
- ☐ The FEMA FIRM panel # and date and/or the Master Plan information is cited.
- ☐ A copy of the FIRM panel with the site location marked is included in the report.
- ☐ If a floodplain modeling report has been submitted, that report is referenced. The reason for the floodplain modeling report is described.
- ☐ If a FEMA CLOMR or LOMR is going to be needed, the reason for the CLOMR or LOMR is described.
- ☐ If a FEMA LOMR is required after construction, this is stated in the report.
- ☐ The location of the structures relative to the floodplain is described. If there is both a FEMA and a City floodplain on the site, the location of the structures relative to both is described.

- ☐ The use of the structures is described. This is to determine if the structure is residential, non-residential, or mixed-use. Also, structures in all 100- year and Poudre River 500-year floodplains cannot be used as a critical facility. (See Chapter 10 of City Code for definitions.)
- ☐ The report describes how the development will be in compliance with the applicable floodplain regulations (Chapter 10 of City Code). (Examples: elevation of lowest floor above regulatory flood protection elevation, floodproofing, floodway regulations, erosion buffer zone regulations, no-rise, etc.)
- ☐ The type of foundation construction for the structures (i.e. slab-on-grade, crawl space, basement, etc.) is discussed in the report.
- ☐ The type of foundation matches with the details shown on the grading plan.
- ☐ The report states that the lowest floor (including basement or crawl space) and HVAC will be required to be elevated above the regulatory flood protection elevation. Non-residential structures can be floodproofed instead of elevated to the regulatory flood protection elevation.
- ☐ If garages are not going to be elevated to the regulatory flood protection elevation, then a note is included stating the following requirements:
  - ☐ There shall be 1 square inch of venting for every 1 square foot of enclosed area.
  - ☐ The bottom of the venting shall not be higher than 1 foot above grade.
  - ☐ The venting shall be on at least two sides, preferably on upstream and downstream sides. (Does not have to be divided equally).
- ☐ If a non-residential structure is to be floodproofed, then a note is included stating that all requirements on separate sheet titled “Floodproofing Guidelines” shall be met. (Floodproofing guidelines can be obtained at <http://fcgov.com/stormwater/pdf/fp-floodproofing.pdf>)
- ☐ For manufactured homes, a note is included stating that all submittal requirements on separate sheet titled “Installation of a Mobile Home Located in a Floodplain: Submittal Requirements” shall be met. (Mobile Home guidelines can be obtained at <http://fcgov.com/stormwater/pdf/fp-mobilhome.pdf>)
- ☐ The report states that a floodplain use permit will be required for each structure and each site construction element (detention ponds, bike paths, parking lots, utilities, etc.) in the floodplain.
- ☐ A note is in the report stating that a FEMA elevation or floodproofing certificate will be completed and approved before the CO is issued.
- ☐ In the compliance section, Chapter 10 of City Code is listed.

**FEMA CLOMR Approval**

- ☐ If a FEMA CLOMR is required, the necessary modeling has been submitted and approved by the City.

Additional Comments:

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**Terms to Note**

**Lowest Floor Elevation** – Elevation of the lowest floor of the lowest enclosed area (including bottom of basement or crawlspace). This is not the same as finished floor. The lowest floor should be distinguished from finished floor on plans and reports.

**Regulatory Flood Protection Elevation** – For all floodplains except the Poudre River, the regulatory flood protection elevation is eighteen (18) inches above the base flood elevation. For the Poudre River floodplain, the regulatory flood protection elevation is twenty-four (24) inches above the base flood elevation. If there is both a FEMA and a City BFE, the higher BFE should be used to determine the regulatory flood protection elevation.

Additional floodplain terminology is defined in Chapter 10 of City Code.

**NOTE: Issues specific to individual sites may arise that result in additional requirements. These will be discussed during initial meetings with the applicant.**