

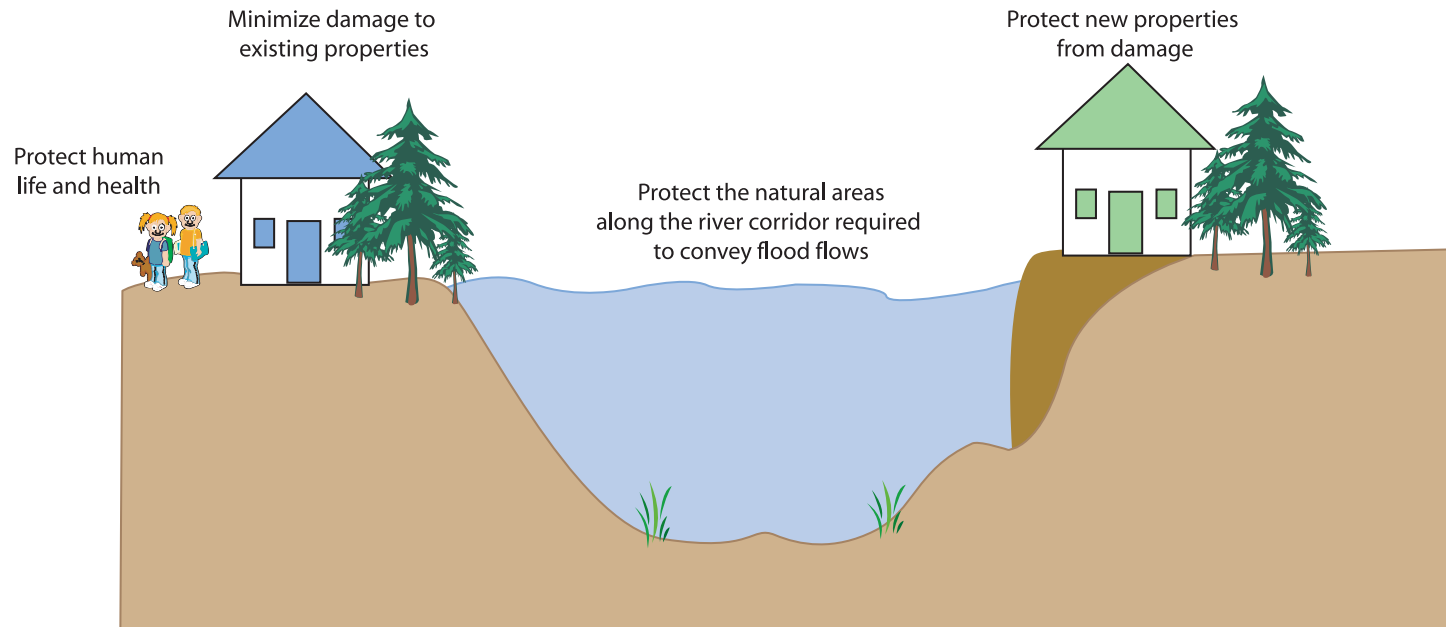
City of Fort Collins Floodplain Regulations

FOR ALL FLOODPLAINS other than the Poudre River

Quick Guide

Note: This guide was prepared as an educational tool to help explain portions of the floodplain regulations, and is not intended as a complete or detailed explanation of the legal requirements that may apply to a particular property. Article II of Chapter 10 of the *City Code* specifies the requirements and prohibitions that are outlined generally in this guide and is the controlling legal document in the event of any conflict or inconsistency between this guide and the *City Code*. The *Code* provisions can be found at <http://www.colocode.com/ftcollins/municipal/chapter10.htm>.

Purpose of Floodplain Regulations



Floodplain Facts

- Property in the 100-year floodplain has a 1 percent chance in any given year of being flooded.
- Over a 30-year period, there is a 26 percent chance that a property in the 100-year floodplain will be flooded. For comparison, there is only a 5 percent chance that the building will catch fire during that same 30-year period.
- Some properties have an even higher risk of flooding because they are in areas where smaller, more frequent floods cause damage.

Table of Odds for Different Events

<i>Event</i>	<i>Odds</i>
Structure in the 100-year floodplain being flooded in any given year	1 in 100
Matching one number plus Powerball in the Powerball Lottery	1 in 124
Structure in the 500-year floodplain being flooded in any given year	1 in 500
Annual chance of being killed in a car accident if you drive 10,000 miles/year	1 in 4,000
Being struck by lightning	1 in 600,000
Winning the Powerball Lottery jackpot (matching five numbers and the Powerball)	1 in 120,526,770

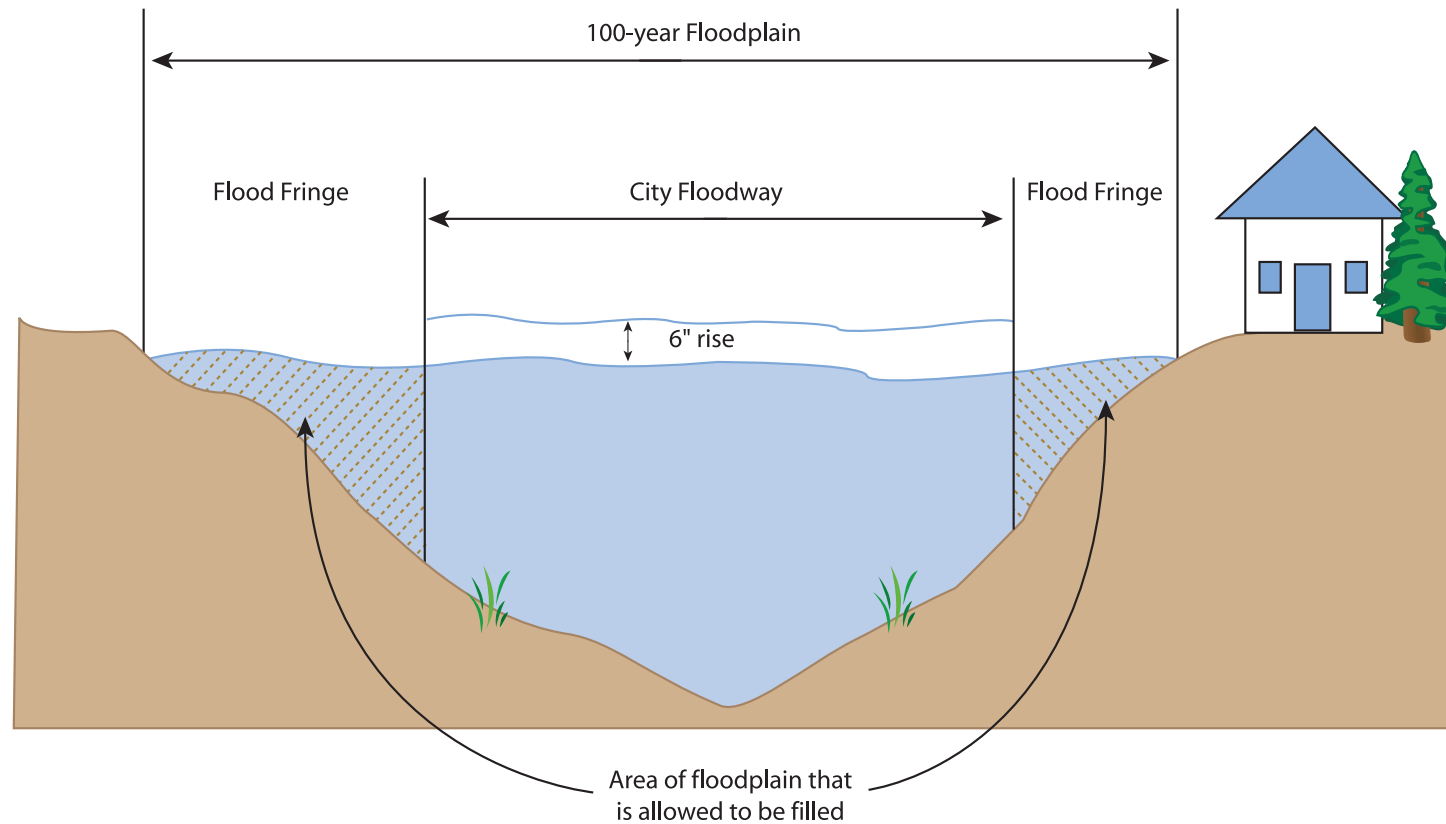
Types of Floodplains

- In Fort Collins, floodplains are designated by the City as well as by the Federal Emergency Management Agency (FEMA).
- The FEMA-basin floodplains cover only the major drainages. Changes in these floodplains must be approved by FEMA (p. 5).
- The City-basin floodplains further identify the flood hazard. Some of the flooding in City-basin floodplains is from irrigation ditch spills or undersized storm sewers that result in overland flooding. Changes in these floodplains can be approved by the City (p. 5).
- For floodplain regulation purposes, a floodplain property is either in a FEMA-basin floodplain, a City-basin floodplain or the Poudre River floodplain.

Floodplain Designations

Floodplain Name	Poudre River	FEMA-Basin	City-Basin
Poudre River	X		
Spring Creek		X	
Dry Creek		X	
Cooper Slough		X	
Boxelder Creek		X	
Fossil Creek			X
Old Town			X
Canal Importation			X
McClellands Creek			X
Mail Creek			X
Foothills Channel			X
West Vine			X

Floodway



- The floodway is the portion of the floodplain with the greatest depths and velocities.
- The floodway is the area of highest risk.
- The floodway must be preserved to allow the floodwater to pass through without being obstructed.
- Areas along the flood fringe are allowed to be filled and developed, but this raises the 100-year flood level. The City has set an allowable rise of 0.5 feet.

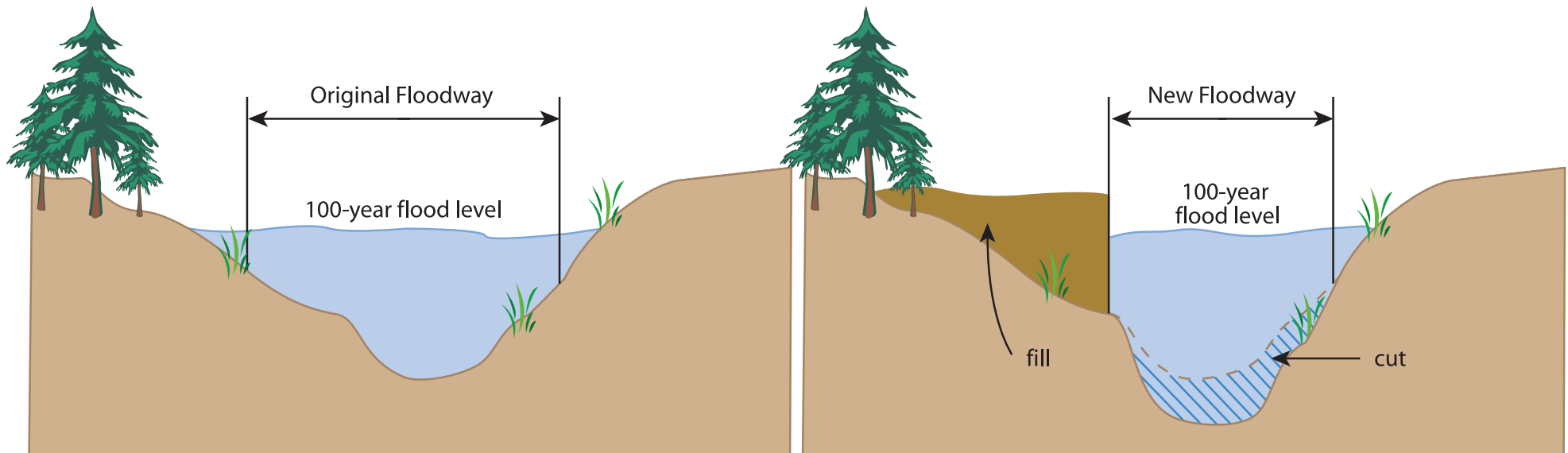
Floodway Modifications

- Floodways can be modified, but the applicant must be able to show that the project causes no-rise in the 100-year flood level.
- In FEMA-basin floodplains, the applicant must submit information to FEMA for approval before construction and after construction if certain changes are being made.

If the applicant's project causes a rise, there are two options:

1. In FEMA-basin floodplains, the applicant must show the entire rise is on their property or obtain easements from other property owners. No structures can be impacted by a rise in the flood level.
2. In City-basin floodplains, the applicant must show that the entire rise is on their property or obtain easements from other property owners.

Example of a Floodway Modification



Summary of Floodway Development Regulations

Residential Development

- New residential development is not allowed.
- Fill is not allowed unless the applicant can show no-rise (Floodway Modifications, p. 5).
- Residential additions are not allowed.
- Remodels are allowed subject to the substantial improvement requirements (p. 14-15).
- Manufactured homes are allowed only in existing manufactured home parks.
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-15). Must meet the freeboard requirements for redevelopments (p. 10).
- Detached garages and sheds are allowed if the applicant can show no-rise (p. 17 and Floodway Modifications, p. 5).

Non-Residential Development

- New non-residential development is allowed if the applicant can show no-rise (Floodway Modifications, p. 5). Must meet the freeboard requirements (p. 10-11).
- Fill is not allowed unless the applicant can show no-rise (Floodway Modifications, p. 5).
- Non-residential additions are allowed if the applicant can show no-rise (Floodway Modifications, p. 6). Must meet the freeboard requirements (p. 10-11).
- Remodels are allowed subject to the substantial improvement requirements (p. 14-16).
- Mobile buildings (modular offices) are allowed only in existing mobile building developments.
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-16). Must meet the freeboard requirements for redevelopments (p. 10-11).
- Attached garages, detached garages and sheds are allowed if the applicant can show no-rise (p. 17 and Floodway Modifications, p. 5).

Mixed-Use Development

- New mixed-use development is not allowed.
- Fill is not allowed unless the applicant can show no-rise (Floodway Modifications, p. 5).
- Residential additions are not allowed to a mixed-use structure. Non-residential additions are allowed to a mixed-use structure if the applicant can show no-rise (Floodway Modifications, p. 5). Must meet the freeboard requirements (p. 10-11).
- Remodels are allowed subject to the substantial improvement requirements (p. 14-16).
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-16). Must meet the freeboard requirements for redevelopments (p. 10-11).
- Detached garages and sheds are allowed if the applicant can show no-rise (p. 17 and Floodway Modifications, p. 5).

Summary of Floodway Development Regulations (continued)

Residential Development

- Critical facilities are not allowed (p. 18).
- New basements are not allowed below the freeboard level (p. 10). An existing basement in a redeveloped or substantially improved structure is not allowed to remain (p. 10 and 14-15).

Non-Residential Development

- Critical facilities are not allowed (p. 18).
- New basements are not allowed below the freeboard level (p. 10-11). An existing basement in a redeveloped or substantially improved structure can remain if floodproofed (p. 10-11 and 14-16).
- New outside storage of equipment or materials is not allowed unless the applicant can show no rise (Floodway Modifications, p. 5).

Mixed-Use Development

- Critical facilities are not allowed (p. 18).
- New basements are not allowed below the freeboard level (p. 10-11). An existing basement in a redeveloped or substantially improved structure is not allowed to remain if it is in residential use (p. 10 and 14-15). An existing basement in a redeveloped or substantially improved structure is allowed to remain if it is in nonresidential use and floodproofed (p. 10-11 and 14-16).
- New outside storage of equipment or materials is not allowed unless the applicant can show no rise (Floodway Modifications, p. 5)

Summary of Floodplain Fringe Development Regulations

Residential Development

- New residential development is allowed. Must meet the freeboard requirements (p. 10).
- Fill is allowed.
- Residential additions are allowed. Must meet the freeboard requirements (p. 10).
- Remodels are allowed subject to the substantial improvement requirements (p. 14-15).
- Manufactured homes are allowed only to replace an existing manufactured home or fill a vacant lot in an existing manufactured home park.
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-15). Must meet the freeboard requirements for redevelopments (p. 10).
- Attached garages, detached garages and sheds are allowed (p. 17).
- Critical facilities are not allowed (p. 18).

Non-Residential Development

- New non-residential development is allowed. Must meet the freeboard requirements (p. 10-11).
- Fill is allowed.
- Non-residential additions are allowed. Must meet the freeboard requirements (p. 10-11).
- Remodels are allowed subject to the substantial improvement requirements (p. 14-16).
- Mobile buildings (modular offices) are allowed only to replace an existing mobile building or fill a vacant lot in an existing mobile building development.
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-16). Must meet the freeboard requirements for redevelopments (p. 10-11).
- Attached garages, detached garages and sheds are allowed (p. 17).
- Critical facilities are not allowed (p. 18).

Mixed-Use Development

- New mixed-use development is allowed. Must meet the freeboard requirements (p. 10-11).
- Fill is allowed.
- Mixed-use additions are allowed. Must meet the freeboard requirements (p. 10-11).
- Remodels are allowed subject to the substantial improvement requirements (p. 14-16).
- Redevelopment (rebuild) of an existing structure is allowed (p. 14-16). Must meet the freeboard requirements for redevelopments (p. 10-11).
- Attached garages, detached garages and sheds are allowed (p. 17).
- Critical facilities are not allowed (p. 18).

Summary of Floodplain Fringe Development Regulations (continued)

Residential Development

- New basements are not allowed below the freeboard level (p. 10). An existing basement in a redeveloped or substantially improved structure is not allowed to remain (p. 10 and 14-15).

Non-Residential Development

- New basements are allowed. Must meet freeboard requirements and be floodproofed (p. 10-11). An existing basement below the freeboard level in a redeveloped or substantially improved structure can remain if floodproofed (p. 10-11 and 14-16).

Mixed-Use Development

- New basements are not allowed below the freeboard level for residential portions of mixed-use structures (p. 10). An existing basement in a redeveloped or substantially improved structure is not allowed to remain if it is in residential use (p. 10 and 14-15).

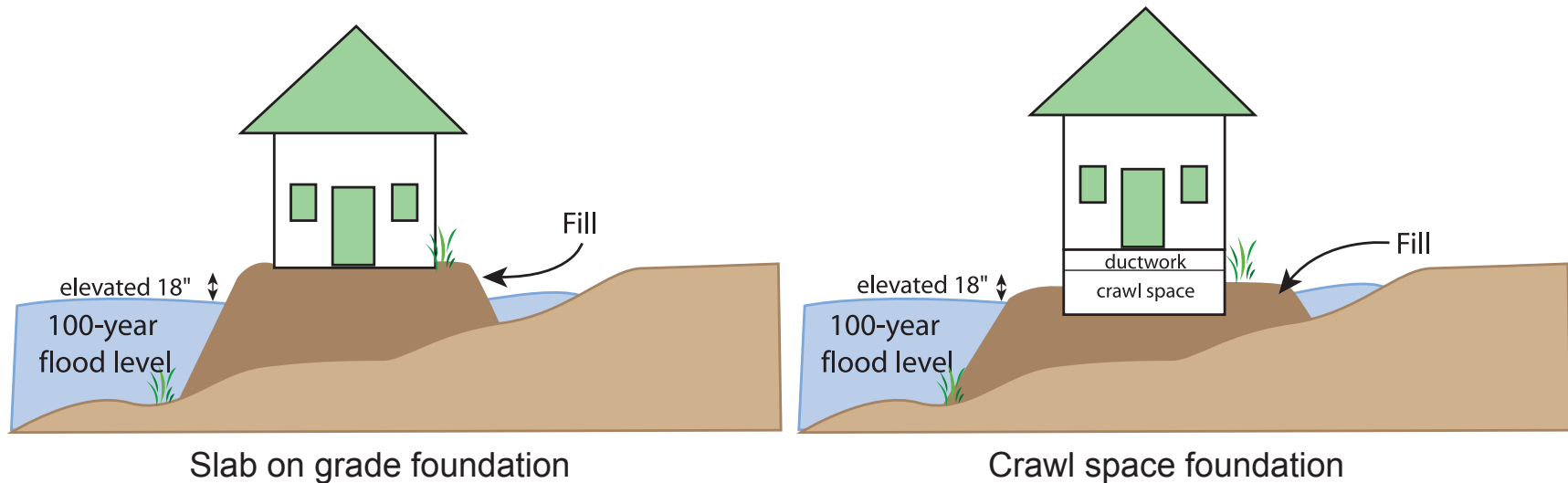
New basements are allowed for non-residential portions of mixed-use structures. Must meet freeboard requirements and be floodproofed (p. 10-11). An existing basement in a redeveloped or substantially improved structure is allowed to remain if it is in non-residential use and floodproofed (p. 10-11 and 14-16).

Freeboard

- Freeboard is a factor of safety that accounts for the allowed rise in flood level due to development in the flood fringe and for larger floods and debris that may cause the flood elevation to be higher.
- Freeboard is a measure of how high above the flood level the structure must be built or floodproofed.

Residential Structures and Residential Portions of Mixed-Use Structures

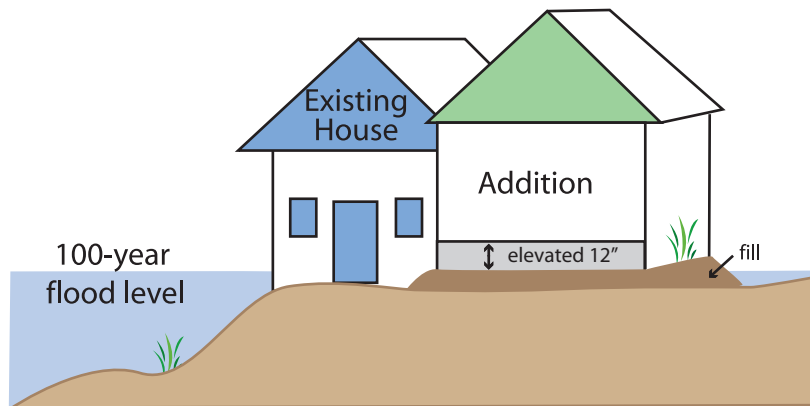
- Freeboard for new development and redevelopment of an existing structure, including any attached garages, is 18 inches;
- Freeboard for additions and substantial improvements (including attached garages) is 12 inches;
- Freeboard for new detached garages or sheds that are accessory to an existing structure is 12 inches (p. 17);
- Must elevate the structure; not allowed to floodproof; and
- The lowest floor of the structure (p. 12-13), including the basement, all HVAC and electrical, must be elevated above the freeboard height.



Example of new development residential elevation

(See p. 12-13 for detailed foundation designs)

Freeboard continued



Example of residential addition

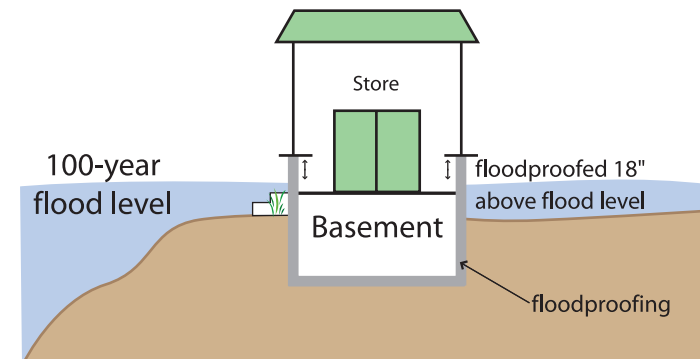
Non-Residential Structures and Non-Residential Portions of Mixed-Use Structures

- Freeboard for new development and redevelopment of an existing structure, including any attached garages, is 18 inches;
- Freeboard for additions and substantial improvements (including attached garages) is 12 inches;
- Freeboard for new detached garages or sheds that are accessory to an existing structure is 12 inches (p 17);
- Allowed to either elevate or floodproof the structure;
- In the floodway, new basements are not allowed;
- If elevating, the lowest floor of the structure (p. 12-13), including the basement, all HVAC and electrical, must be elevated above the freeboard height; and
- If floodproofing, the structure as well as all HVAC and electrical, must be floodproofed to the freeboard height.

Floodproofing uses various techniques to make a building water tight:

- Sealants and waterproof membranes;
- Closure shields in front of doorways; and
- Mini-walls to protect window or stair wells.

Floodproofing generally works only when flood depths are less than 3 feet.

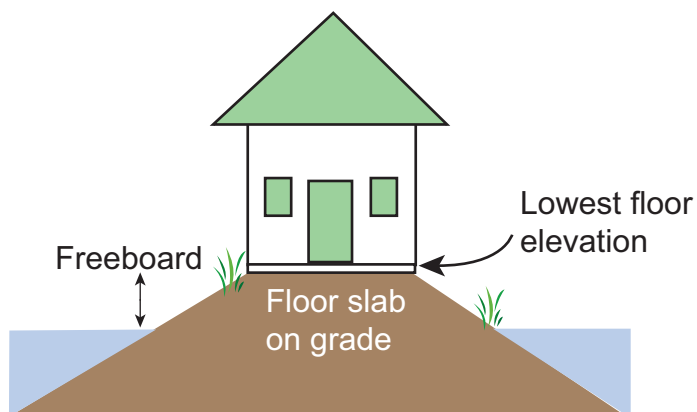


Example of new development non-residential floodproofing

Determination of Lowest Floor Based on Type of Foundation

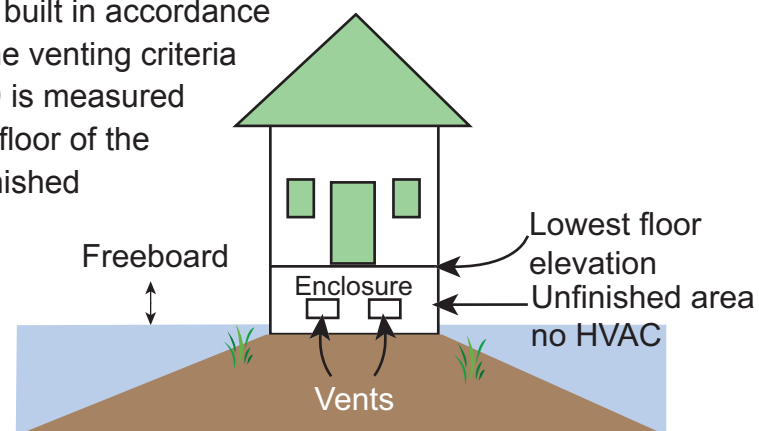
Slab on Grade

The lowest floor elevation of a slab on grade structure is measured at the top of the slab.



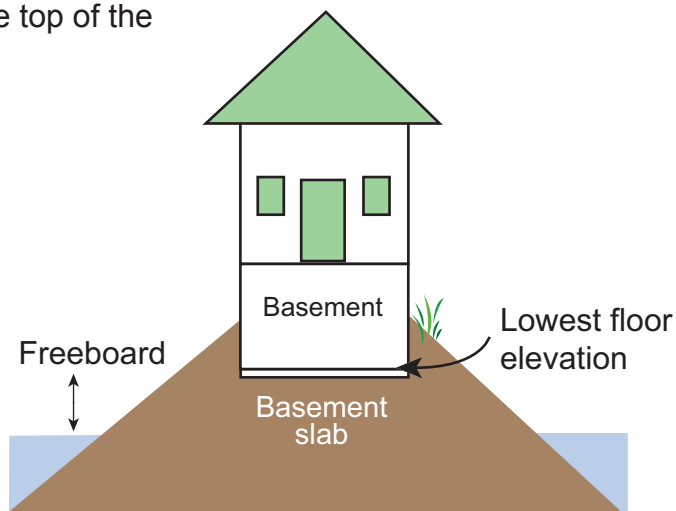
Enclosure (above grade crawl space)

1. The lowest floor elevation of a structure with an enclosure that is built in accordance with the venting criteria (p. 17) is measured at the floor of the first finished floor.

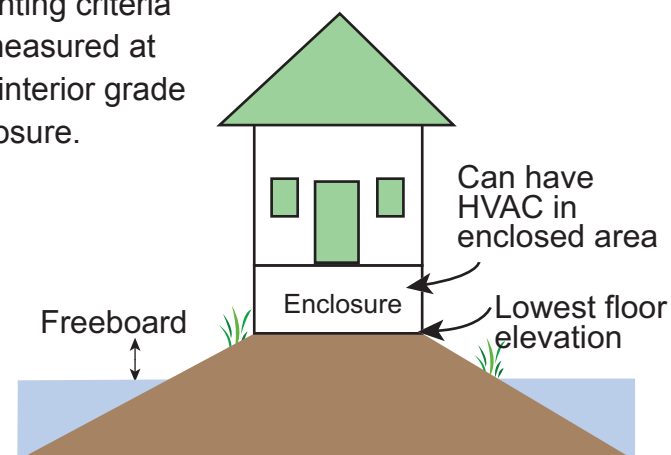


Basement

The lowest floor elevation of a structure with a basement is measured at the top of the basement slab.



2. The lowest floor elevation of a structure with an enclosure that is not built in accordance with the venting criteria (p. 17) is measured at the lowest interior grade of the enclosure.



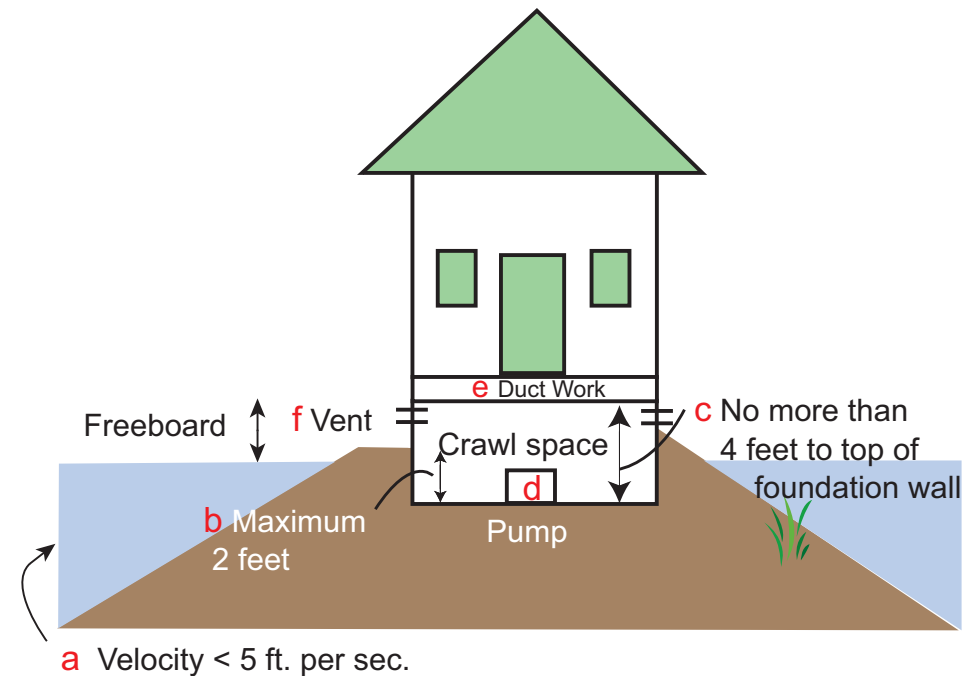
Determination of Lowest Floor Based on Type of Foundation continued

Crawl Space (below grade)

The lowest floor of a structure with a crawl space is measured at the lowest finished floor if the following conditions are met:

- The velocity of the flood flows hitting the structure is less than 5 feet per second;
- The interior grade elevation that is below the flood elevation is no lower than 2 feet below the lowest adjacent grade;
- The height of the crawl space, as measured from the lowest interior grade of the crawl space to the top of the foundation wall, does not exceed 4 feet at any point;
- An adequate drainage system is in place, including a totally immersible pump;
- All ductwork, HVAC, hot water heater and electrical is elevated to the regulatory flood protection elevation; and
- Venting requirements (p. 17) are met.

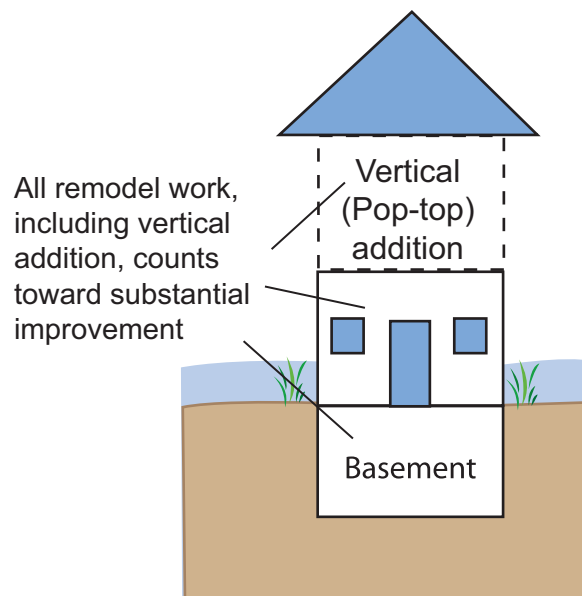
If the above conditions are not met, the lowest floor is determined based on the criteria for a basement (p. 12).



Remodels or Repair of Damaged Buildings

Remodels and repairs are allowed subject to the substantial improvement requirements (*p. 15-16*).

Vertical additions (pop-tops) are considered a remodel and are subject to the substantial improvement requirements (*p. 15-16*).



Substantial Improvement and Redevelopment

Substantial improvement occurs when **all** of the following conditions are met:

1. A building permit is requested for any repair, reconstruction or improvement to a non-conforming structure, involving alteration of any wall, ceiling, floor or other structural part of the building;
2. The cost of the improvement, or the amount of damage, equals or exceeds 50 percent of the market value of the structure either before the improvement or repair is started or before the building was damaged; and
3. The cost is calculated on a per project basis. A project is based on all building permits issued during the 12-month period preceeding the floodplain permit application date.

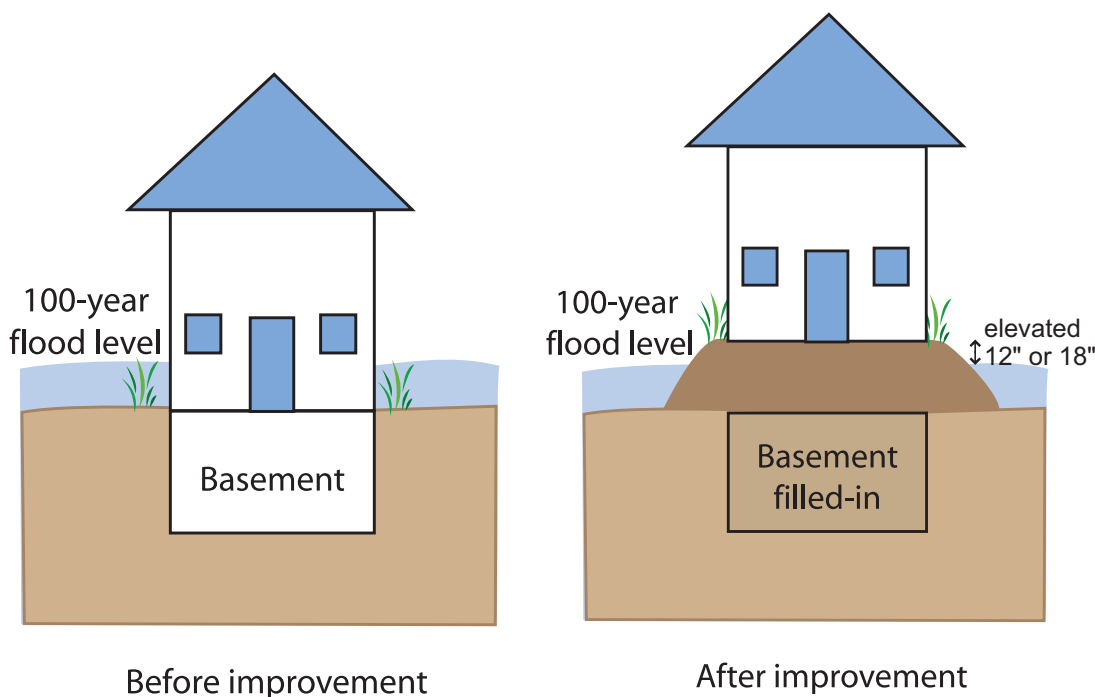
A substantial improvement policy ensures that non-conforming structures are brought into conformance over time and are therefore, protected from flood damage and the risk to occupants is reduced.

Redevelopment occurs when there is a substantial improvement **and** more than 50 percent of the wall perimeter of any floor of a structure that is partially or completely below the flood elevation is removed or replaced and the building footprint is not increased.

Residential Structures and Residential Portions of Mixed-Use Structures

If a **substantial improvement** occurs, the lowest floor (p. 12-13) of a non-conforming structure, including the basement, and all HVAC, electrical and utilities, must be elevated 12 inches above the flood elevation. After improvements, the structure will be protected from flood damage.

If a **redevelopment** occurs, the lowest floor (p. 12-13) of a non-conforming structure, including the basement, all HVAC, electrical and utilities, must be elevated 18 inches above the flood elevation. After improvements, the structure will be protected from flood damage.



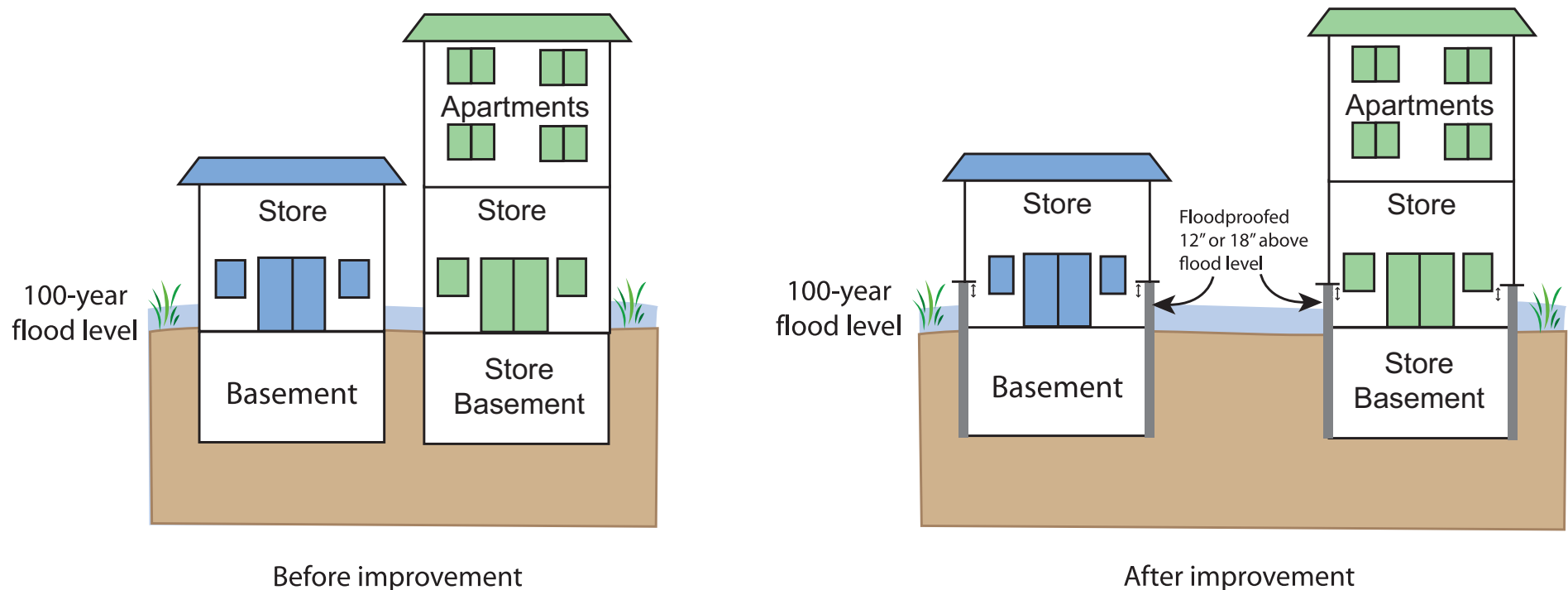
Example of residential substantial improvement or redevelopment

Substantial Improvement and Redevelopment continued

Non-Residential Structures and Non-Residential Portion of Mixed-Use Structures

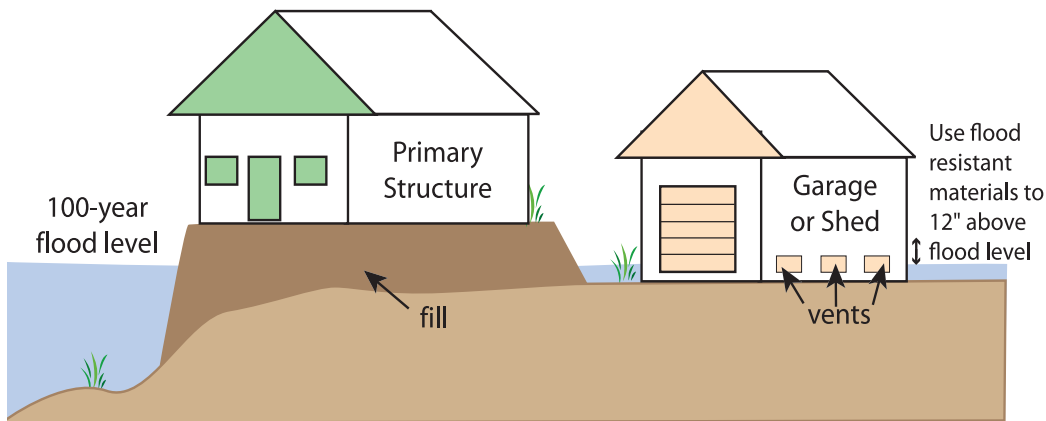
If a substantial improvement occurs, the lowest floor (p. 12-13) of a non-conforming structure, including the basement and all HVAC and electrical, must be elevated or floodproofed 12 inches above the flood elevation. After improvements, the structure will be protected from flood damage.

If a redevelopment occurs, the lowest floor (p. 12-13) of a non-conforming structure, including the basement and all HVAC and electrical, must be elevated or floodproofed 18 inches above the flood elevation. After improvements, the structure will be protected from flood damage.

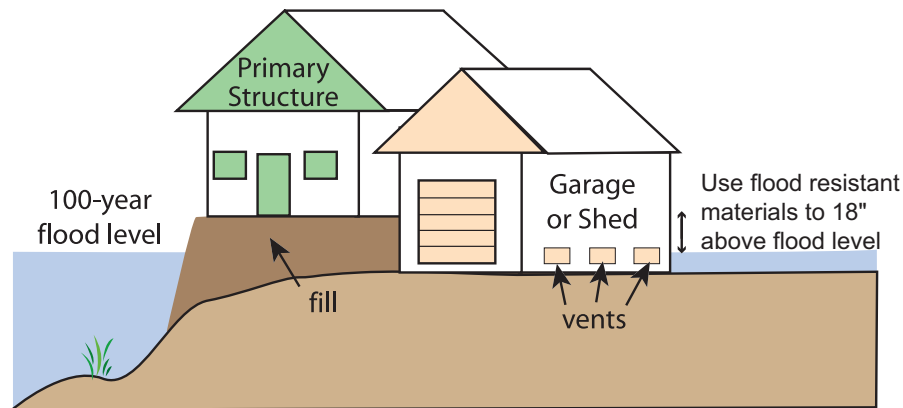


Example of non-residential and mixed-use substantial improvements or redevelopments

Garages, Sheds and Accessory Structures



Example of detached structure



Example of attached structure

- Used only for parking or storage;
- Is an accessory to a main structure;
- Must be anchored to resist flotation;
- Can either elevate to freeboard level (p. 10-11) or be built at grade;
- If not elevated to freeboard level, the garage or shed must meet the following requirements:
 - Must have 1 square inch of venting for every square foot of enclosed area;
 - Must have at least two vents located on different sides of the structure;
 - Have at least one vent on the upstream side of the structure;
 - Bottom of vents cannot be higher than 1 foot above grade;
 - Flood resistant materials must be used below the freeboard level (p. 10-11); and
 - All HVAC and electrical must be elevated to the freeboard level (p. 10-11).

Venting Calculation Example

600 square foot shed

600 square inches of venting required

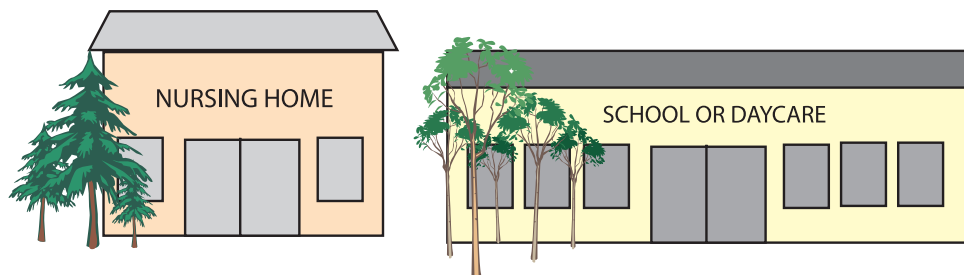
Vent size: 12" x 10" = 120 sq. inches per vent

600 divided by 120 = 5 vents

Critical Facilities

Critical facilities are not allowed in the floodplain fringe or floodway. Examples of critical facilities are shown below:

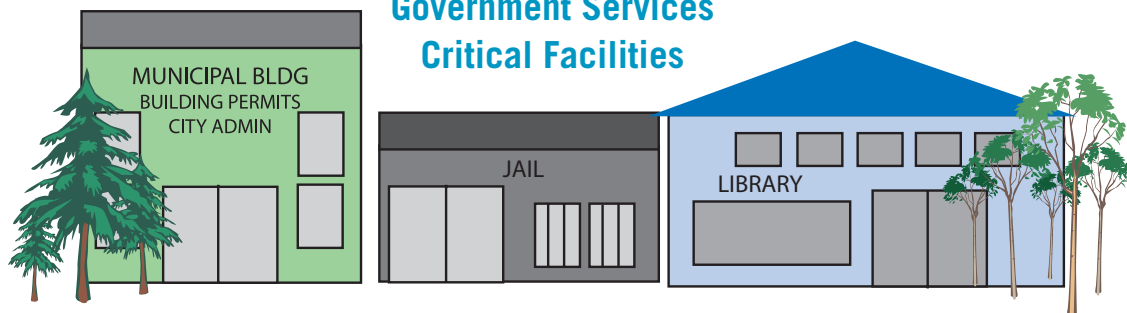
At-Risk Populations Critical Facilities



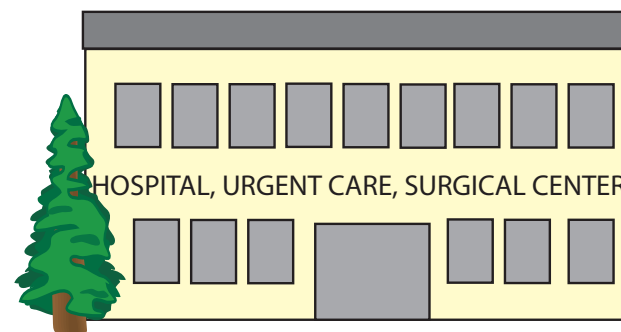
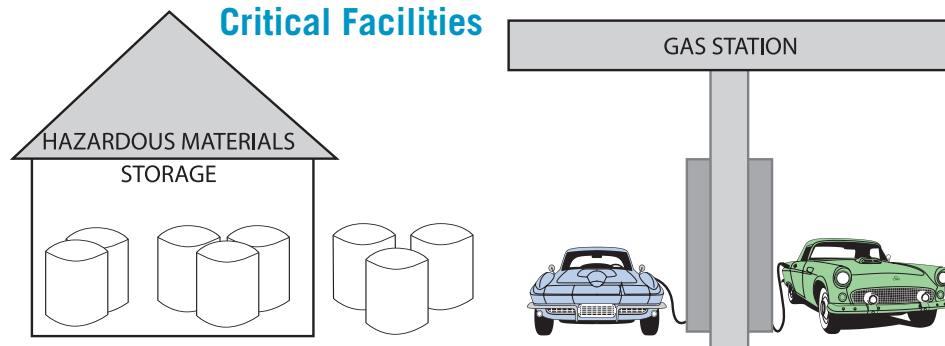
Essential Services Critical Facilities



Government Services Critical Facilities

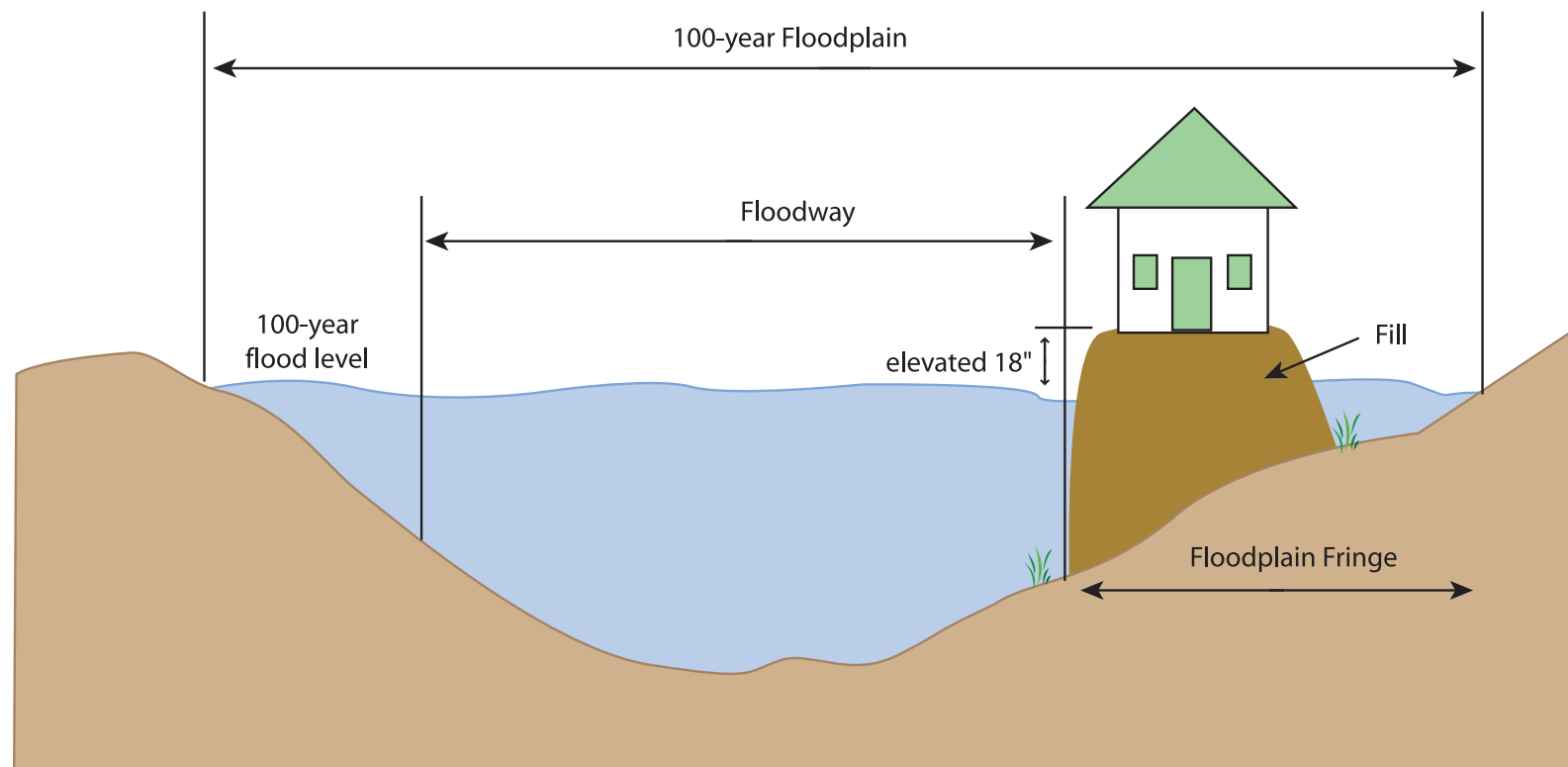


Hazardous Materials Critical Facilities



Letter of Map Revision Based on Fill

- A Letter of Map Revision Based on Fill (LOMR-Fill) is a FEMA process whereby a property in the flood fringe can be filled and is no longer considered in the floodplain for insurance requirements.
- A community must sign-off on the application to FEMA and certify that all existing and future structures will be “reasonably safe from flooding.”
- To meet this “reasonably safe from flooding” standard, all floodplain requirements (p. 8-9) must be met even if fill is placed and the property is “removed” from the floodplain by FEMA.



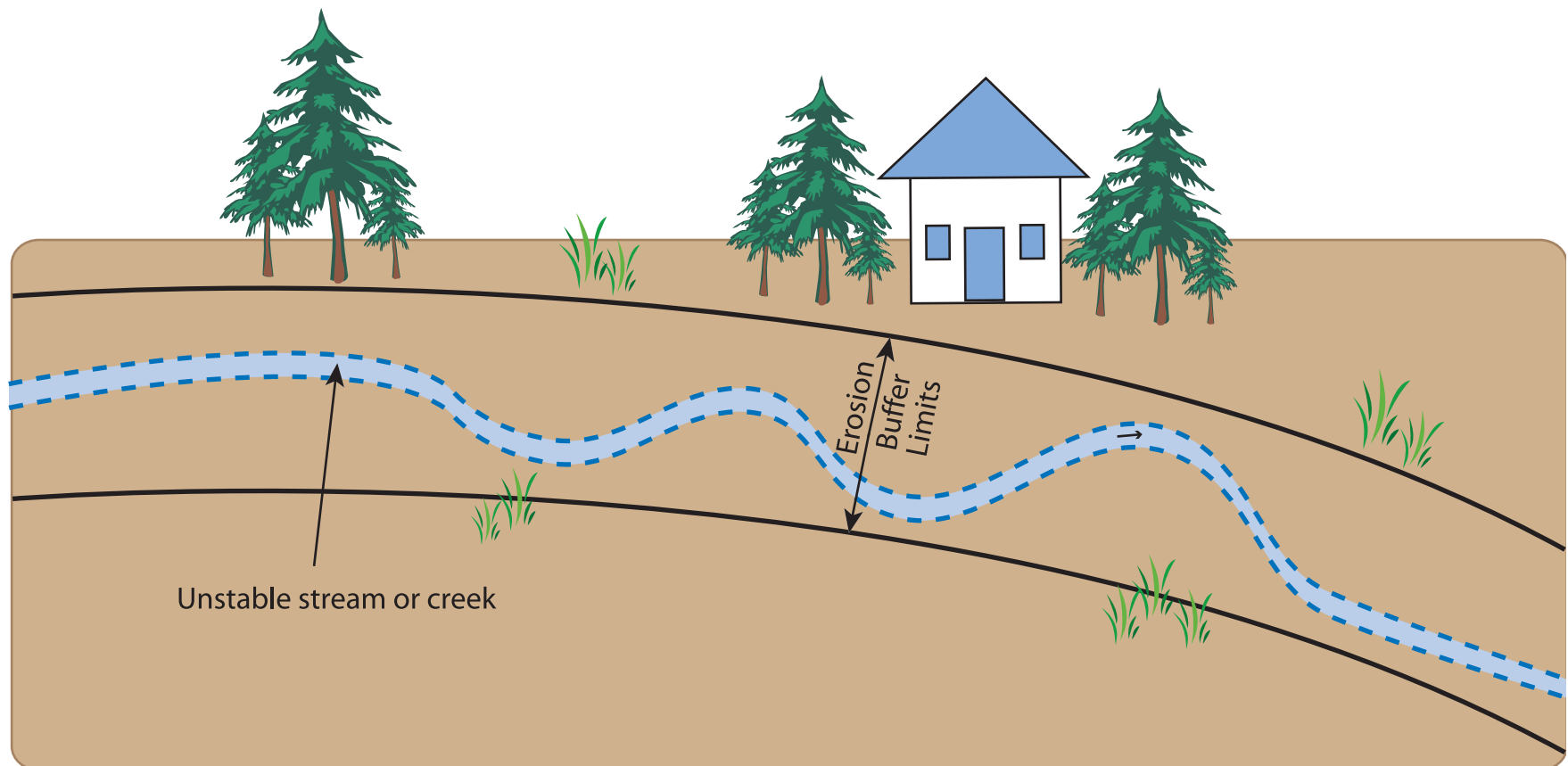
Example of fill placed in the flood fringe

Plan View:



Erosion Buffer Limits

- Erosion hazard areas occur where the channel bed and banks are unstable, causing the stream to move over time.
- Migration is a natural characteristic of a stream. Some streams are more prone to migration than others depending on the type of material that makes up the bed and banks.
- Urbanization can have a pronounced impact on these natural processes, resulting in accelerated erosion.
- Erosion buffer limits have been delineated for those streams that are subject to severe erosion hazards. These include Fossil Creek, Boxelder Creek, McClellands Creek and Mail Creek.
- If development is restricted from these unstable areas, there will be less need in the future to defend the development from the stream. Defending the development may solve one problem but could create another upstream or downstream.



Erosion Buffer Limits continued

Requirements within erosion buffer limits

- Structures are not allowed.
- Irrigated grasses or shrubs are not allowed.
- Detention ponds or water quality ponds are not allowed.
- Parking lots are not allowed.
- Temporary or permanent storage of materials is not allowed.
- The area within the buffer must not be used for construction traffic for any development.
- All utilities must be kept out except for necessary stream crossings.
- Bike paths must be kept out except for necessary stream crossings.
- Road bridges must span the entire buffer limit. If there is no possibility of spanning the entire limit, the location crossing and design of abutments must be done so as to limit disturbance of the channel banks.
- Grading or excavation is not allowed in the buffer unless associated with a bridge or utility crossing as noted above.
- A stability study may be required.

Required Documentation and Submittals

(Note: Some items may require a registered professional engineer.)

Building Permit and Development Review Approval Requirements

- Floodplain Use Permit for any work being done on a structure or property in the floodplain. The permit fees are shown in the table on page 23.
- Building plans showing foundation design, flood elevation, floor elevations, HVAC elevations, size and locations of vents, floodproofing design, emergency response and preparedness plan and other relevant information.
- No-Rise certification if working in the floodway.
- Floodplain Modeling Report if doing a floodway modification (p. 5). (See separate modeling guidelines handout.)
- Other plans or reports to document information such as grading, fill, channel stability and floodplain boundaries.

Certificate of Occupancy Approval Requirements

- FEMA Elevation Certificate or FEMA Floodproofing Certificate for any new structure, addition, substantial improvement or redevelopment built in any floodplain. Allow two weeks for review and approval. Requires licensed surveyor for elevation certificate; requires licensed engineer or architect for floodproofing certificate.
- No-Rise certification if working in the floodway.
- As-built modeling report, if applicable.

Variances

The Fort Collins Water Board has the authority to issue variances to the floodplain regulations if certain requirements are met. The Board meets the third Thursday of the month. An application packet must be submitted three weeks prior to the board meeting, with a \$1,000 application fee. (See separate variance submittal handout for documentation and justification requirements.)

Floodplain Information and Assistance

Call Fort Collins Utilities at (970) 416-2632 or e-mail utilities@fcgov.com to determine if a property is in the floodplain or to discuss floodplain regulations. More information about floodplain management in Fort Collins is available at fcgov.com/stormwater/flooding.

Floodplain Permit Fees

Permit Type/Activity	City of Fort Collins Fees	Fees for 1st and 2nd Reviews	Fees for 3rd, 4th, 5th etc. Reviews
FLOODPLAIN USE PERMIT (FPU)	\$50	N/A	N/A
All fees in categories 1 through 5A are <u>in addition</u> to the \$50 FPU permit application fee and are based on the type of review submittal. The highest single applicable fee will be assessed.			
CATEGORY 1 MINOR IMPROVEMENTS / ACCESSORY STRUCTURES			
Fence/Accessory Structure/Change of use	\$0	Included in \$50 FPU fee	Included in \$50 FPU fee
Deck/Improvement or remodel < 50% Bldg. Value	\$150		
Fill or Grading Only			
CATEGORY 2 REDEVELOPMENT, NEW BUILDINGS, ADDITIONS, SUBSTANTIAL IMPROVEMENTS OR REMODELS GREATER THAN 50% OF THE VALUE OF THE EXISTING			
Slab on Grade	\$150	Included in \$50 FPU fee	Included in \$50 FPU fee
Enclosure	\$200		
Crawl Space	\$250		
CATEGORY 3 MOBILE HOMES, FLOODPROOFING			
Mobile Home	\$250	Included in \$50 FPU fee	Included in \$50 FPU fee
Floodproofing			
CATEGORY 4 VARIANCES			
Variance Application	\$1,000		
CATEGORY 5A PRE-PROJECT FLOODPLAIN ANALYSES (CITY BASIN, FEMA, CLOMR)			
FEMA CLOMR/CPMR	\$1,000	Included in \$1,000 fee	\$500 each time + \$50/hr. for each review hour over 10 hours
City of Fort Collins Basin Preliminary Map Revision			
Hydraulic Analysis for No-Rise Certification	\$500	Included in \$500 fee	\$250 each time + \$50/hr. for each review hour over 5 hours
CLOMR-Fill	\$250	Included in \$250 fee	\$125 each time + \$50/hr. for each review hour over 3 hours
No-Rise Certification - without Hydraulic Analysis		Included in \$50 FPU fee	Included in \$50 FPU fee
CATEGORY 5B POST-PROJECT FLOODPLAIN ANALYSES (CITY BASIN, FEMA, LOMR)			
FEMA LOMR/PMR	\$1,000	Included in \$1,000 fee	\$500 each time + \$50/hr. for each review hour over 10 hours
City of Fort Collins Basin Final Map Revision			
Hydraulic Analysis for No-Rise Certification	\$500	Included in \$500 fee	\$250 each time + \$50/hr. for each review hour over 5 hours
LOMR-Fill	\$250	Included in \$250 fee	\$125 each time + \$50/hr. for each review hour over 3 hours
No-Rise Certification - w/o Hydraulic Analysis		Included in \$50 FPU fee	Included in \$50 FPU fee

Flood Insurance Information

Who needs flood insurance? EVERYONE. Flood Insurance is available for ALL properties in the City of Fort Collins, regardless of location. Approximately 25% of damages occur in low risk areas.

Flood Insurance is required by lenders for any structure in a FEMA 100-year floodplain. Lenders have the option of requiring it in any other area.

- New flood insurance policies will require a FEMA Elevation Certificate documenting the elevation of the structure.
- Fort Collins Utilities has elevation certificates on file for many structures in the City of Fort Collins, free of charge, by calling 970-416-2632 or visiting www.fcgov.com/elevation-certificate.
- Documenting the elevation of the structure allows the flood insurance premium to be calculated based on the risk.
- The higher the structure is elevated above the 100-year flood level, the lower the insurance premium.

Flood Insurance is not mandatory in City-designated floodplains. However, it is strongly recommended.

- Look into a “Preferred Risk” Flood Insurance Policy. It combines structural coverage and contents coverage at a more affordable price.

Important Considerations

- There is a 30-day waiting period before flood insurance becomes effective.
- Disaster assistance is only available for major flood events and does not cover the entire cost to rebuild your home or business.
- Fort Collins is subject to flash flooding—there is little warning time to move your contents to safer locations.

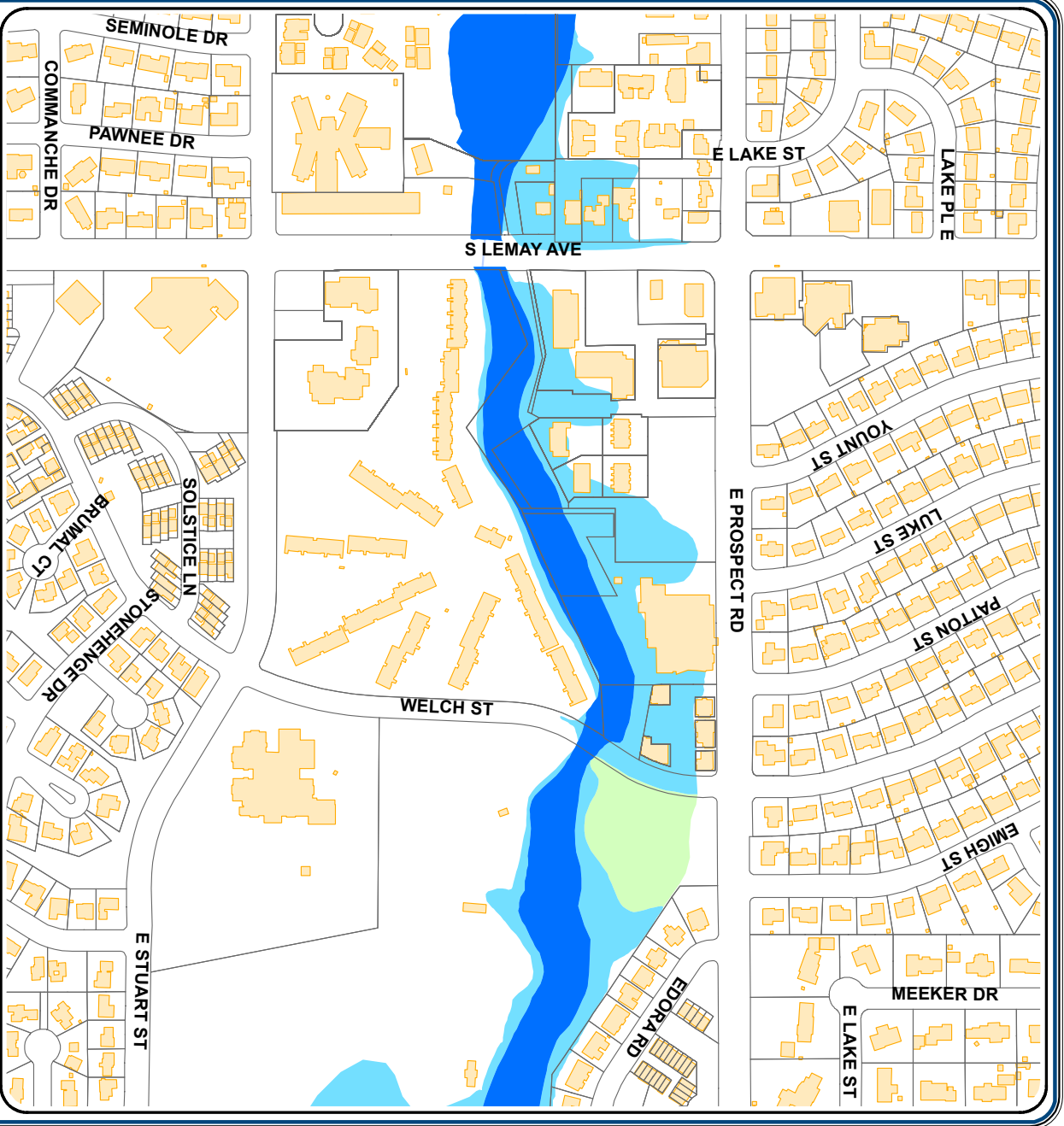
You can receive up to a 40% discount on your flood insurance premiums.

- Fort Collins has some of the lowest flood insurance premiums in the United States due to its proactive floodplain management program.
- Check with your insurance agent to make sure you are receiving the FEMA Community Rating System (CRS) Discount for Fort Collins being a Class 4 Community.



To learn more, visit <http://www.floodsmart.gov/>, contact your insurance agent, or call FEMA at 1-888-379-9531.

Example of Flood Risk Map



FEMA Flood Risk Map

High Risk

FEMA Floodway - Area of 100-year floodplain with greatest depths and fastest velocities.

Moderate Risk

FEMA Flood Fringe - May include:

- Areas of FEMA 100-year floodplain (FEMA Zones A, AE, AO, and AH)
- Areas of City 100-year floodplain including ponding areas and sheet flow areas with average depths of 1-3 feet.

There is a 1% annual chance that these areas will be flooded.

Low Risk

May include:

- Areas of FEMA 500-year floodplain (FEMA Zone X-shaded).
- Areas of FEMA or City 100-year floodplain (sheet flow) with average depths of less than 1 foot.
- Areas protected by levees from the 100-year flood.

Areas outside of FEMA and City mapped 100-year and 500-year floodplains. Local drainage problems may still exist.

This information is based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) and the City of Fort Collins Master Drainage Plans. This letter does not imply that the referenced property will or will not be free from flooding or damage. A property not in the Special Flood Hazard Area or in a City Designated Floodplain may be damaged by a flood greater than that predicted on the map or from a local drainage problem not shown on the map. This map does not create liability on the part of the City, or any officer or employee thereof, for any damage that results from reliance on this information.

All floodplain boundaries are approximate.



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