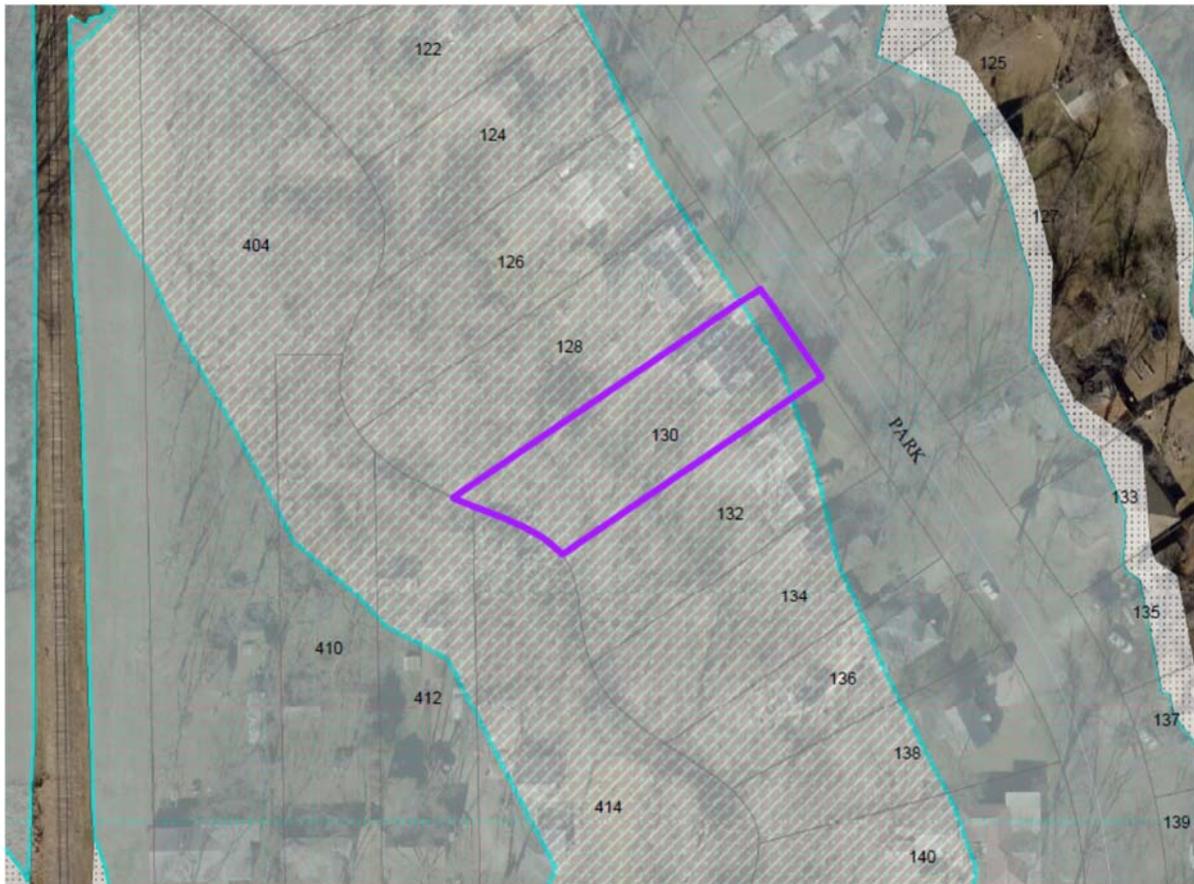


Date of Meeting: July 14, 2020
Subject: Variance Considerations: Accessory Structure Placement in the SFHA
Project Name: Residential Below Ground Storm Shelter
Location: 130 S. Park Drive

BACKGROUND

On June 15, 2020 an application was filed with the City of Stillwater requesting a variance from the municipal code prohibiting the placement of accessory structures within the regulatory floodway & encroachments within the regulated floodway. The application was filed after submittal and denial of the Residential Accessory Structure application (RA20-0031) on May 7, 2020. The proposed accessory structure is a 5' X 7' below ground concrete storm shelter with a slanted top.



CODE APPLICATION

City Code, Chapter 23, Section 23-374 Provisions for Flood Hazard Reduction.

- b. (6) Accessory structure. Accessory structures may be allowed within zones A, A1-30, AH, and AE on the FIRM subject to the following criteria:
- a. Structure shall not exceed 200 square feet in size.
 - b. Structure shall be unfinished on the interior.
 - c. Structure shall not be used for human habitation (including work, sleeping, living, cooking, or restroom areas).
 - d. Service facilities such as electrical and heating equipment must be elevated to or above the BFE or floodproofed.
 - e. Structure is constructed and placed on building site so as to offer the minimum resistance to the flow of floodwaters.
 - f. Structure is designed to have low flood damage potential (i.e., constructed with flood resistance materials).
 - g. Structure is firmly anchored to prevent flotation, collapse and lateral movement.
 - h. Accessory structures shall not be located within the regulatory floodway.**
 - i. Openings to relieve hydrostatic pressure during a flood shall be provided below the base flood elevation (BFE).
 - j. Structure is to be located so as not to cause damage to adjacent and nearby structures.

City Code, Chapter 23, Section 23-374 Provisions for Flood Hazard Reduction.

- (e) Floodways. Floodways located within the floodplain established in section 23-372(b), are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris, potential projectiles and erosion potential, the following provisions shall apply:
- (1) Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway except for:**
- a. Work for the purpose of constructing, repairing, or maintaining any street, utility facility including any service lines related thereto, or any recreational park facility which when completed results in no adverse impact; and
 - b. Maintenance of stormwater drainage facilities that does not diminish the design capacity of a drainage system.

ANALYSIS

The proposed location for the installment of an underground storm shelter, located at 130 S. Park Drive, is situated within the regulatory floodway. Approximately 91.5% of the property lies within the designated floodway with the remaining 8.5% in the 1% annual chance (100-year) flood zone. Alternative options for a storm shelter were considered, such as an above ground safe room within the existing structure. However, the home was built in 1945 utilizing pier and beam construction over a crawlspace, requiring costly extensive reinforcement to support the weight of an indoor safe room. Additionally, there are currently no suitable locations within the existing structure due to the general layout of the house.

The City of Stillwater participates in the National Flood Insurance Program (NFIP), allowing residents to obtain flood insurance policies, submit damage claims after flood emergencies, and allow the City to apply for various federal grants for hazard mitigation. As an NFIP participating community, the City is subject to federal regulations (44 CFR 603.3) pertaining to floodplain development/management, and is required to maintain and enforce strict ordinances for activities within designated Special Flood Hazard Areas (SFHAs).

Additionally, the City of Stillwater participates in the Community Ratings System (CRS), an incentive-based community program that rewards communities for floodplain management activities that exceed the minimum standards of the NFIP. By participating in the program, City of Stillwater residents located in the SFHA receive a discount on flood insurance premiums. By enforcing the previously mentioned ordinances, the City receives credit points which accumulate to achieve the premium discounts.

Section 23-373(d) of the City of Stillwater code of ordinances provides the following provisions for granting floodplain variances:

(10)The following are prerequisites for granting variances:

- a. Variances shall only be issued upon a determination that the variance is the minimum-necessary, considering the flood hazard, to afford relief.
- b. Variances shall only be issued upon:
 - 1) Showing a good and sufficient cause;
 - 2) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - 3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws, regulations or ordinances.

FINDINGS

1. Alternative locations and storm shelter designs were considered and deemed unfeasible.
2. Neighboring property owners with historical knowledge of the area state that flood waters have not inundated the properties along this side of S. Park Drive during past major flood events.
3. Failure to grant the variance may result in reduced personal safety for the applicant during tornadic events.
4. Granting the variance may result in reduced personal safety for the applicant should the shelter be occupied during a flood event large enough to inundate the area.

5. Granting a variance to floodplain ordinances has the potential to negatively impact the community's NFIP standing and CRS rating, which can result in being suspended from the NFIP, loss of CRS rating resulting in an immediate increase in flood insurance premiums for all policy holders within Stillwater, and ineligibility for various federal grants.

Staff recommends that the Board of Drainage Appeals accepts staff findings and make any additional findings, based on any testimony presented, in order to grant or deny the variances. The Board should vote on each variance request separately. If the variances are approved, staff recommends that approval be contingent on the applicant demonstrating no adverse impacts to adjacent properties, the entrance threshold be at a minimum of 12" above the Base Flood Elevation, and the structure is properly anchored to prevent floatation.

Prepared by:	Zack Henson, CPSWQ, CFM, Floodplain Administrator
Reviewed by:	Monty Karns, PE, Director of Engineering
Date of Preparation:	July 2, 2020
Attachments:	Variance Application 130 S Park Drive FEMA FIRMette