

**ITEM:** Floodplain Permit application for proposed elevation of a residential structure and the installation of a fence in the floodway of Imhoff Creek.

**BACKGROUND:**

APPLICANT: Swift Acquisition Partners

BUILDER: SH Renovations

ENGINEER: Urban James Engineering, Uwem Ekpenyong P.E.

The house at 454 W Tonhawa is located in the floodway of Imhoff Creek north of Main Street. It is a single story residence built in 1950 that is approximately 999 square feet. The property was purchased in August of 2024 at which point the owner was advised that a floodplain permit would be required to renovate. The interior of the structure has been stripped down to studs. Cost of renovations are estimated at \$101,000. According to the County Assessor, the value of the structure is \$75,275 making the percent cost of improvement 135% of the market value of the structure. The applicant, is aware that this project will be considered substantial improvement and require bringing the structure into full compliance with the Flood Hazard Ordinance.

Detailed engineering plans are included in the packet submitted with the application. The BFE for this location is 1158.0'. According the EC submitted with the application, the lowest floor is 1156.0' currently. The plans indicate that the structure will be elevated so that the lowest floor is 2.25' above the BFE or 1160.3'. The plans also indicate that 1113 square inches of flood venting will be provided.

In addition, the applicant is proposing the installation of a privacy fence. The fence would be a standard wooden privacy fence with the bottom section being composed of framed chain link sections to allow for water to freely flow through the area below the BFE. The applicant's engineer has calculated that 1.49 cubic yards of fill will need to be removed from the site to provide the necessary compensatory storage for the deck and fence.

The applicant submitted alternative plans that would still elevate the residence and install the fencing as listed above, but it would remove the decks from the front and rear of the house and instead install concrete steps and an at grade concrete patio. Those plans are in the committee packet as "Alternative Plan Set". This alternative would require 3.99 cubic yards of compensatory storage that would be created expanding the proposed swale as indicated on the plans. This additional storage is required for the steps leading to the structure. The concrete patio would be installed at grade with spoils removed from the floodplain. The applicant has indicated that their preference would be the original proposal with the decks.

**STAFF ANALYSIS:**

Site located in Little River Basin or Tributaries?                    yes\_\_    no✓

According to the latest DFIRM, this project is located in the floodway of a tributary of Imhoff Creek (Zone AE).

Applicable Ordinance Sections:

Subject Area:

- |                        |  |
|------------------------|--|
| 36-533 (e)(2)(a) ..... | Fill restrictions in the floodplain            |
| (e)(2)(e) .....        | Compensatory storage                           |
| (e)(2)(j) .....        | Utilities constructed to minimize flood damage |
| (e)3(a) .....          | Elevation of Structures                        |
| (f)(3)(8) .....        | No rise considerations                         |

(e)(2)(a) and (e)(2)(e) Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill is restricted in the floodplain unless compensatory storage is provided.

The applicant has provided calculations of the new volume occupied by fence and deck and indicated that the appropriate volume will be removed from the SW section of the yard by creating a 20' x 6' x 4" swale which equals 1.49 cubic yards. If the alternative plans are utilized instead, a 30' x 11' x 4" swale would be create to create the 3.99 cubic yards of compensatory storage meeting this requirement.

(e)2(j) - All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

The applicant has indicated all electrical and utility structures will be installed at least 2' above the BFE.

(e)3(a) Elevation of Structures – Residential structures shall be constructed on fill including any attendant utility and sanitary facilities, shall be designed so that the lowest floor (including basement) is elevated at least two feet above base flood elevation and the fill shall be at a level no lower than 1 foot above the base flood elevation for the particular area and shall extend at such elevation at least (15) fifteen feet beyond the limits of any structure or building erected thereon.

The project engineer has indicated that the existing structure will be elevated so that the lowest floor elevation is 2.25' above the BFE.

(f)(3)(8) No Rise Considerations – For proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of no more than 0.05 ft. will occur in the BFE on any adjacent property as a result of the proposed work is required.

The project engineer has indicated in their No-Rise statement that this activity will cause no rise on any adjacent property.

**RECOMMENDATION:** Staff recommends Floodplain Permit Application #705 be approved with the following conditions:

1. Elevation Certificate provided for the residential structure prior to final acceptance. Elevation of electrical and mechanical components should also be provided and verified by staff.
2. As built drawings need to be provided to verify compensatory storage area requirements have been met for either alternative. Staff will also confirm that flood venting meets requirements of the ordinance.

**ACTION TAKEN:** \_\_\_\_\_