

ITEM: Floodplain Permit application for the construction of a new house on the property located at 2702 Golden Valley Road in the 10 Mile Flat Creek Floodplain.

BACKGROUND:

APPLICANT: Jake Aldridge

BUILDER: Windstone Construction

ENGINEER: Jon Doyle P.E.

The applicant owes a 20 acre lot in the Golden Valley Ranch subdivision located north of W. Rock Creek Road between 48th and 60th Ave. NW in the Ten Mile Flat Creek Floodplain. They are proposing the construction of an approximately 8400 square foot house in the middle of the lot. In addition to the residence, an aerobic septic system, water well and driveway connecting to Golden Valley Road is proposed. The applicant has indicated that a 22" x 13" arch RCP will be installed at the end of the drive to connect to Golden Valley road. Compensatory storage will be provided to elevate the residence and driveway from a proposed 88,000 square foot pond on the same lot.

STAFF ANALYSIS:

Site located in Little River Basin or its Tributaries? yes__ no✓

According to the DFIRM, the house, drive, septic system and water well will be located in the 10 Mile Flat Creek floodplain Zone AE. The BFE at the planned residential location is approximately 1129.0'.

Applicable Ordinance Sections:**Subject Area:**

36-533 (e)2(a)	Fill Restrictions in the Floodplain
(e)2(e)	Compensatory storage
(e)2(g)	Fill protection
(e)2(j)	Utilities constructed to minimize flood damage
(e)2(k)	In/exfiltration of flood waters in utility systems
(e)2(m)	On-site waste disposal systems
(e)3(a) & (c)	Elevation of Structures
(f)3(a)8	No Rise Considerations

(e)2(a) and (e)2(e) - Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill in the floodplain is restricted. However, the placement of fill is allowed to elevate structures if compensatory storage is provided.

The applicant's engineer has indicated that 4144 cubic yards of fill are required to elevate the residential structure to an elevation of 1131.5' as well as elevate the drive connecting to Golden Valley road above the BFE (see plans). The applicant's plans indicate that proposed pond has an area of approximately 88,000 square feet. The top of the pond will be 1.28 feet above the outfall and normal water elevation of the pond providing a total of approximately 4172 cubic yards of compensatory storage.

(e)2(g) - Fill shall be protected against erosion and sedimentation by such measures as rip-rap, vegetative cover, bulkheading, or sedimentation basins as approved by the City Engineer.

While not specifically discussed in the application, construction activities will include disturbing more than an acre, requiring a general construction permit from the state as well as an Earth Change Permit from the City. Those permits will require stormwater

pollution prevention plan (SWP3) that will include stabilization requirements for the entire construction site.

(e)2(j) and (e)2(k) - 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 base flood elevation for this location is 1129.0'. The applicant has indicated that residential structure will have a first finished floor elevation of at least 1131.5'.

(e)2(m) - All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

The applicant has indicated the location of the proposed aerobic septic system and the proposed water well. All septic systems and water well installations should be installed in accordance to guidelines provided by ODEQ and the OWRB. Permitting through the City of Norman Utilities Department is also required which requires that the top of the well be at least two feet above the BFE.

4(b)(13) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Septic systems should be installed according the requirements of the ODEQ.

4(c)1 and 4(c)(3) Elevation of Structures – Residential and non-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 applicant's engineer has shown that the top of the first finished floor will be a minimum of 2.5 ft. above the BFE, which exceeds this ordinance requirement.

5(a)(viii) 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 must be provided. For proposed development within a regulatory floodway, certification of no increase in the BFE is required.

The engineer has certified that the project will not cause a rise of more than 0.05 feet to the BFE which meets this ordinance requirement.

RECOMMENDATION: Staff recommends that Floodplain Permit Application #698 be approved with the following conditions:

1. Elevation Certificate provided for the residential structure prior to final acceptance. Additionally, elevation of concrete pad for the residential structure should be submitted to and confirmed by City Staff prior to vertical construction.
2. As-built surveys should be provided for the drive and compensatory storage area (pond) prior to final acceptance.

ACTION TAKEN: _____