

ITEM: This Floodplain Permit Application is for the installation of a cellular communication tower south of Jefferson Street and east of I-35 in the Canadian River floodplain.

BACKGROUND:

APPLICANT: American Towers, LLC.

BUILDER: TBD

ENGINEER: Patrick Barry P.E.

The applicant is requesting a floodplain permit to construct a cellular communications tower in the Canadian River Floodplain directly south of Jefferson Street and east of I-35. Plans for this location include constructing a gravel drive and concrete road from the end of Jefferson Street towards the southwest. The concrete section will be the low point in the road (approximately 1100.5") to function as a low-water crossing during flood events and not impede flow. The primary compound for the telecommunications equipment will be built up to an elevation of 1108' per the plans and is shown to be 52' x 62' in size. This will include an 17' x 18' turnaround area. Concrete bin blocks will be stacked approximately 8' high to create the wall of the compound. Existing grade is between 1100' and 1101'. A chain link fence and gate will be installed around the compound with a 1" gap at the bottom. Plans indicate that all electrical equipment will be installed with a minimum of 2' of freeboard above the BFE. Plans also indicated that 6" perforated pipe will be installed that will daylight at grade to allow positive drainage away from the compound. In addition, two areas adjacent to the access road and north east of the compound are proposed for cell on wheels (COW) trailer areas. The compensatory storage area is located immediately adjacent to the north of the compound and access road.

STAFF ANALYSIS:

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

According to the latest FIRM, the site of the proposed work is located in the Canadian River floodplain (Zone AE). At the proposed site, the BFE is 1107.0 ft.

Applicable Ordinance Sections:	Subject Area:
36-533	(e)2(a)..... Fill restrictions
	(e)2(e)..... Compensatory storage
	(e)3(c)..... Nonresidential freeboard
	(e)3(j)..... Fencing requirements
	(f)3(a)(8)..... No rise considerations

(e)2(a) and (e)2(e) Fill Restrictions in the Floodplain and Compensatory Storage – Fill is restricted because storage capacity is removed from floodplains, natural drainage patterns are adversely altered, and erosion problems can develop. Compensatory storage must be provided within the general location of any storage that is displaced by fill or other development activity and must serve the equivalent hydrologic function as the portion which is displaced with respect to the area and elevation of the floodplain.

The applicant has indicated that 1188.45 cubic yards of fill will be brought in to complete the access road, compound and bin blocks for the wall. The proposed compensatory storage area is 2084.77 square yards sloped at 5:1 to a total depth of 2' creating 1193.77 cubic yards of storage creating a net gain of approximately 5 cubic yards in the floodplain.

(e)3(c) Nonresidential freeboard requirements - Nonresidential construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structures shall be constructed on fill as in subsection (e)(3)a of this section, including any attendant utility and

sanitary facilities, shall be designed so that the lowest floor including basement, ductwork, mechanical and electrical equipment including furnaces, water heaters, and air conditioners etc. is elevated at least two feet above base flood elevation and the fill shall be at a level no lower than one foot above the base flood elevation for the particular area and shall extend at such elevation at least 15 feet beyond the limits of any structure or building erected thereon. A registered professional engineer shall submit a certification to the Director of Public Works that the standards of this chapter, as proposed in subsection (e)(1) and (2) of this section, are satisfied.

The applicant's plans show the elevation of the compound to be at 1108' which is one foot above the BFE. They have additionally indicated that all electrical components will be installed at least 2 feet above the BFE.

(e)3(j) Fencing requirements – All new fences or replacement of existing fences in the SFGA require a Floodplain permit. Approved fences shall be designed and installed to be breakaway or in some other manner so that flows will not be impeded.

The applicant's plans indicate a chain link fence with a 1" gap along the bottom that meet this ordinance requirement.

(f)3(a)(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. For proposed development within a designated regulatory floodway, certification that no increase in the BFE on any adjacent property as a result of the proposed work is required.

The project engineer has submitted a No Rise statement indicating that this project will not cause a rise in the BFE of more than 0.05' on any adjacent property due to the compensatory storage being created. In addition, the low-water crossing section should help facilitate natural flow patterns in this area.

RECOMMENDATION: Staff recommends Floodplain Permit Application #680 be approved with the following condition:

1. As-builts be provided verifying the appropriate compensatory storage has been provided and elevations of constructed structures, including the compound and access road were built to the approximate specifications provided in the application. As-builts should also include the elevation of installed electrical equipment to verify freeboard requirements.

ACTION TAKEN: _____