Agenda Report
June 5, 2018

TO: City Council

FROM: Patrick Baugh, Community Development Director

SUBJECT: Consider a request by the City of University Park to create a Planned Development District, with Detailed Site Plan, for an elevated water storage facility and cellular telephone antennae and related appurtenances. The subject site is located at **3531 Northwest Parkway** and currently zoned Duplex District 2 with SUP No. 74 for elevated water tank.

BACKGROUND:
In 1995, the City of University Park created Specific Use Permit #74. This SUP allows for the water tower to be located at 3531 Northwest Parkway which is in a duplex zoning district (D-1). The current request is to dissolve SUP #74 and create a Planned Development District 42 to allow for the water tower and cellular antennas.

The current water tower has a height of 175'. The new cellular antennae will be attached to the side of the water storage column below the bowl and will not be taller than 100'. Electrical power shall be provided and regulated through ground mounted equipment at the base of the tower within a space of 8' x 14' in dimension (112 square feet total).

General conditions:
1. Site shall be fenced,
2. Construction traffic will be accessed from Northwest Parkway only.

The Federal Communication Commission has jurisdiction over, and is the highest authority on, installation of wireless communication (cellular) antennae in the United States. Staff requested the required calculated proposed radio frequency emission data from the AT & T representatives. This information was compared to the required regulations published in the attached FCC document from the Office of Engineering and Technology, OET Bulletin 65.

Staff finds that the proposed antennae emissions comply with the regulations of the FCC and find no cause to reject the installation on a basis of safety.

The attached information is from the FCC website and provides satisfactory evidence of an acceptable level of safety. The referenced amendments were also reviewed as part of staff's research.

The Planning and Zoning Commission conducted a public hearing and discussed the merits of the case during their regular meeting on March 13 and April 10, 2018. The Commission forwards a recommendation of approval to the City Council on the creation of Planned Development District 42 to allow the Elevated Water Storage Facility with related appurtenances and Wireless Communication (Cellular) antennae uses.

NOTIFICATION:

A public notice was published in the Park Cities News on March 1st 2018, and notices were mailed to owners of real property within 200 feet of the subject tract. Updated notices were mailed to owners of real property within 200 feet on March 27th. A summary of responses is attached.

RECOMMENDATION:

Staff concurs with the Planning and Zoning Commission and recommends the City Council approve creation of Planned Development District #42 with Detailed Site Plan to allow uses of elevated water storage and cellular antennae.

ATTACHMENTS:
Fact section from the FCC website
Application
Plans
Current SUP to be dissolved
Federal Law information
FCC Required Radio Frequency Evaluation
Summary of Responses
Ordinance

From the FAQ section of the FCC website on wireless antennae

Exposure standards for radiofrequency energy have been developed by various organizations and governments. Most modern standards recommend safe levels of exposure separately for the general public and for workers. In the United States, the FCC has adopted and used recognized safety guidelines for evaluating RF environmental exposure since 1985. Federal health and safety agencies, such as the EPA, FDA, the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) have also been involved in monitoring and investigating issues related to RF exposure.

The FCC guidelines for human exposure to RF electromagnetic fields were derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurements (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). Both the NCRP exposure criteria and the IEEE standard were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The exposure guidelines are based on thresholds for known adverse effects, and they incorporate prudent margins of safety. In adopting the current RF exposure guidelines, the FCC consulted with the EPA, FDA, OSHA and NIOSH, and obtained their support for the guidelines that the FCC is using.

Many countries in Europe and elsewhere use exposure guidelines developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The ICNIRP safety limits are generally similar to those of the NCRP and IEEE, with a few exceptions. For example, ICNIRP recommends somewhat different exposure levels in the lower and upper frequency ranges and for localized exposure due to such devices as hand-held cellular telephones. One of the goals of the WHO EMF Project (see above) is to provide a framework for international harmonization of RF safety standards. The NCRP, IEEE and ICNIRP exposure guidelines identify the same threshold level at which harmful biological effects may occur, and the values for Maximum Permissible Exposure (MPE) recommended for electric and magnetic field strength and power density in both documents are based on this level. The threshold level is a Specific Absorption Rate (SAR) value for the whole body of 4 watts per kilogram (4 W/kg).

In addition, the NCRP, IEEE and ICNIRP guidelines for maximum permissible exposure are different for different transmitting frequencies. This is due to the finding (discussed above) that whole-body human absorption of RF energy varies with the frequency of the RF signal. The most restrictive limits on whole-body exposure are in the frequency range of 30-

300 MHz where the human body absorbs RF energy most efficiently when the whole body is exposed. For devices that expose only part of the body, such as mobile phones, different exposure limits are specified (see below), but these limits are based on the same underlying threshold level.

The exposure limits used by the FCC are expressed in terms of SAR, electric and magnetic field strength and power density for transmitters operating at frequencies from 100 kHz to 100 GHz. The applicable limits depend upon the type of sources (e.g, whether a cellphone or a broadcast transmitting antenna). The actual values can be found in our informational bulletin available in OET Bulletin 65.

OET Bulletin No. 65 (August 1997)

- *Evaluating Compliance With FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*
- This revised OET Bulletin 65 has been prepared to provide assistance in determining whether proposed or existing transmitting facilities,operations or devices comply with limits for human exposure to radio frequency (RF) fields adopted by the Federal Communications Commission (FCC) The bulletin offers guidelines and suggestions for evaluating compliance. However, it is not intended to establish mandatory procedures, and other methods and procedures may be acceptable if based on sound engineering practice.
- Download:
- Bulletin
- OET65.pdf (PDF) (84 pages) (Cellular antennae)
- Supplement A
- OET65a.pdf (PDF) (Radio and Television broadcast stations)
- Supplement B
- OET65b.pdf (PDF) (Amateur Radio Stations)
- Supplement C
- OET65c (Supplement C has been superseded by KDB Publication 447498 D03) (Mobile Device)
- Previous revisions of supplement C
- OET65c.doc Revised (6-29-01) (Word)
- OET65c.pdf (PDF)
- Public Notices
- Supplement C to Bulletin 65 Revision (Supplement C has been superseded by KDB Publication 447498 D03)