

MasTec Network Solutions

507 Airport Blvd., Suite 111, Morrisville, NC 27560

Tel (919) 674-5895

MNSEngineering@mastec.com

www.mastec.com



Matthew A. Supert
Director of Municipal Services
Village of Western Springs
740 Hillgrove, Western Springs, IL

RE: Answers to questions in your Dec. 22, 2020 email to Jose J Moran-Sifre, AT&T Legal

Dear Mr. Supert

Please see below for responses to your questions related to the existing and proposed antennas located at “Spring Rock Park” Water Tower: 4400 Central Avenue (ILO432).

(Q1) What is the measured strength and distance of the radio frequency radiation shadow emitted by the antennas while operating within their typical daily operation cycle;

(A1) – Measured strength of radio frequency emission at ground level does not exceed FCC general population limits and is compliant based on FCC Rules and Regulations. Measured strength for all ATT antennas at ground level are shown below.

Carrier	Frequency	Power Density(uW/cm2)	Limit (uW/cm2)	% MPE (General Population)
ATT	700	0.249053	466.6666667	0.053369
ATT	2100	0.133177	1000	0.013318
ATT	2300	0.108204	1000	0.01082
ATT	1900	0.137165	1000	0.013717
ATT	850	0.04095	566.6666667	0.007226

(Q2) Does the level of exposure observed at the ground level adjacent to the Water Tank(s) meet all FCC radio frequency radiation standards while the antennas are operating within their typical daily operation cycle?

(A2) – The level of exposure at the ground level meets all FCC radio frequency radiation standards while the antennas are operating within their typical daily operation cycle. Shown below are composite emissions levels at ground level for ATT antennas.

Total Calculated Maximum Power Density			
	Max Power Density (uW/cm2)	Percentage of Exposure	Results
Uncontrolled/General Population	0.6686	0.0985%	Pass
Controlled/Occupational	0.6686	0.0197%	Pass

(Q3) Do the antennas operate at any time at a level(s) in excess of the FCC allowable radio frequency emission output, and, if so, describe in detail when this occurs, why it occurs and what is done to correct this matter?

(A3) –The antennas do not operate at any time at a level more than the FCC allowable radio frequency emission output at ground level.

(Q4) Are the existing antennas and proposed antennas required to be powered down prior to workers performing maintenance work or replacement work on the antennas based on applicable safety regulations or standards regarding exposure of workers to electrical or radio frequency radiation?

(A4) –OSHA / FCC rules govern the safety of workers. These rules do require the antennas to be powered down when workers are performing work directly in front of the antenna or within 8 ft from the bottom of antenna. Any maintenance work on top of water tank, behind the antenna, areas 8ft beyond the bottom of antenna or areas not directly in front of antenna do not require the antennas to be powered down.

I, Raphael Mohamed, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I believe the information provided to be both true and accurate to the best of my knowledge.

Signed,

Raphael I. Mohamed, PE, PEng

Senior Director of Engineering



507 Airport Blvd, Suite 111, Morrisville, NC 27560

Office: (919) 674-5895 Mobile: (919) 244-5207 Fax: (305) 925-8514

Email: raphael.mohamed@mastec.com

