CITY OF WICHITA

Wichita-Sedgwick County Metropolitan Area Planning Department

September 20, 2010

City Wichita
Property Management
(Mail Stop 1-135)
455 N Main
Wichita, KS 67202

RE: **CON2010-00029** - City Conditional Use request for a wireless communication tower on property zoned SF-5 Single-Family Residential, generally located on the southeast corner of 21st Street North and 135th Street West.

Dear Ladies and Gentlemen:

At its regular meeting on **August 5, 2010**, the Wichita - Sedgwick County Metropolitan Area Planning Commission considered the above captioned request. The action of the MAPC was to **APPROVE** the request subject to the conditions stated in the enclosed resolution.

If you have any questions concerning this application, please contact our office at 268-4421.

Sincerely,

Bill Longnecker
Senior Planner
Current Plans Division

WL:mc
Enclosure

Copies to: Dennis McHugh, IT, Mail Stop 1-04
Attica Township, Frank Sipos, 1335 S 199Th St W., Goddard, KS 67052
Teal Brook Estates, Don Rensner, 2123 Teal Brook Court, Wichita, KS 67235
WCC V, Jeff Longwell, Mail Stop 1-13
N.A. V, Megan Buckmaster, Mail Stop 1-135
Julianne Kallman, Engineering, Mail Stop 1-71
Kurt Schroeder, Office of Central Inspection, Mail Stop 1-72
J. R. Cox, Office of Central Inspection, Mail Stop 1-72
Paul Hays, Office of Central Inspection, Mail Stop 1-72

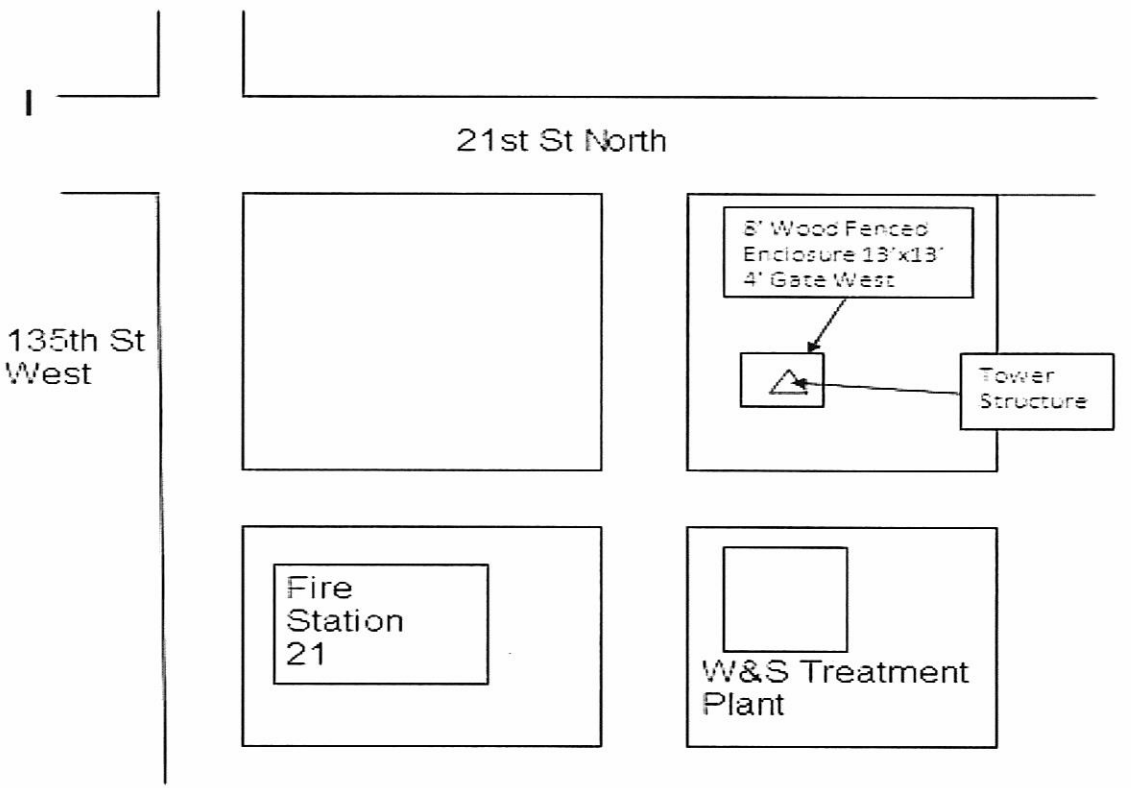
1) Preserve the pre-existing character of the area as much as possible; There are no other communication towers within a mile of the site; this will be the first in this immediate area. However, the Wireless Plan recognizes that as the number of users increase, the need for additional coverage and capacity means location of towers around residential areas will become more common. An advantage for this site is that the area is not entirely developed. 2) Minimize the height, mass, or proportion of the tower; 3) Minimize the tower's silhouette, with monopoles favored over lattice type structures for up to 150-feet and a preference for antennas mounted flush to the support structure over triangular "top hat" antenna arrays; In reference to Standards 2 and 3, the applicant has the opinion that a 120-foot monopole used for a microwave signal (bolted-flanged construction) that would met the 99.9 percent reliability standard, presents more obtrusive mass to its surroundings than the proposed lattice tower. 4) Use colors, textures, and materials on the towers that blend in with the existing environment; The Determination of No Hazard to Air Navigation document has determined that no marking or lighting will be required for this tower. The proposed galvanized surface of the tower will blend into the sky more readily than a tower painted with red or white paints. 5) Conceal or disguise the tower as a flagpole, clock tower, or church steeple; Planning is not aware that these are options have been investigated. 6) Place towers in areas where trees and/or buildings obscure some or all of the facility; There are mature trees located east and south of the site. These trees, the water purification facility, and the Fire Station will help screen the site for the areas located east, west and south of the site. 7) Place towers on walls or roofs of buildings; The applicant has used this option when available, using the City Water tower at Webb Road and 53rd Street North, the KTA tower at Webb Road and I-135 and the City Hall roof, this option does not appear to be present in this area. 8) Screen towers through landscaping, walls, and/or fencing; The applicant has provided a solid fence around the site, but needs to provide more landscaping. All mature trees on the site need to be retained 9) Paint towers red and white instead of using strobe lighting; See #4 above. The application appears to meet most of these considerations.

5. Impact of the proposed development on community facilities: FAA approval should ensure that the proposed tower does not detrimentally impact the operation of airports in the vicinity. The tower would be an accessory facility used to provide constant remote monitoring and control of all planned and future (at this time) City Transit services, Public Works traffic single upgrades, City Fire's in house training and conferencing and the Aquifer Storage and Recovery ("ASR") and water production facilities.

Site Plan


W 21ST ST N
N 135TH ST W
4650C
13425
13426
4649D
2110
2121
2100
2101


13425
13426
2100
0 10 20 40ft


21st St North
135th St West
8' Wood Fenced Enclosure 13'x13' 4' Gate West
Tower Structure
Fire Station 21
W&S Treatment Plant

CONDITIONAL USE RESOLUTION NO. CON2010-00029

WHEREAS, the City of Wichita (Owner); pursuant to Section V-D of the Wichita-Sedgwick County Unified Zoning Code (herein referred to as Unified Zoning Code), requests a Conditional Use for a Wireless Communication Facility on approximately 0.85-acres zoned SF-5 Single-Family Residential ("SF-5") described as:

A 13-foot (x) 13-foot site located in Reserve A, Northwest Main Pump Station Addition, generally located east of 135th Street West on the south side of 21st Street North ,Wichita, Sedgwick County, Kansas.

WHEREAS, proper notice as required by the Unified Zoning Code and by the policy of the Metropolitan Area Planning Commission (hereinafter referred to as MAPC) has been given; and

WHEREAS, the MAPC did, at the meeting of August 5, 2010, consider said application; and

WHEREAS, the MAPC has authority to permit a Conditional Use, subject to any special conditions deemed appropriate in order to assure full compliance with the criteria of the Unified Zoning Code.

NOW, THEREFORE, BE IT RESOLVED by the Metropolitan Area Planning Commission that this application be approved to allow a Conditional Use for a Wireless Communication Facility on approximately 0.85-acres acres zoned SF-5 Single-Family Residential ("SF-5") described as:

A 13-foot (x) 13-foot site located in Reserve A, Northwest Main Pump Station Addition, generally located east of 135th Street West on the south side of 21st Street North ,Wichita, Sedgwick County, Kansas.

Approved subject to the following conditions:

A. Allow a 120-foot tall, galvanized steel, lattice, self-supporting, microwave communication tower. The 13-foot (x) 13-foot tower site shall be located on Reserve A, the Northwest Main Pump Station Addition.
B. All requirements of Art. III Sec. III.D.6.g. of the Unified Zoning Code shall be met.
C. The applicant shall obtain all permits necessary to construct the wireless communication facility, and the wireless communication facility shall be erected within one year of approval of the Conditional Use by the MAPC or governing body, as applicable.
D. The support structure shall be a "lattice" design that generally conforms to the approved site elevation and that is silver or gray or a similar unobtrusive color with a matte finish to minimize glare. Antennas shall be mounted flush to the support structure.
E. The tower will have no lights on it, except those at the base of the structure, which will be below the 6-8 foot tall wooden fence around the tower.
F. The applicant shall submit a current copy of FAA approval to the MAPD and the Code Enforcement Office prior to the issuance of a building permit.
G. The tower site shall be developed in general conformance with the approved site plan.
H. The site shall be developed and operated in compliance with all federal, state, and local rules and regulations.
I. If the Zoning Administrator finds that there is a violation of any of the conditions of the Conditional Use, the Zoning Administrator, in addition to enforcing the other remedies set forth in Article VIII of

the Unified Zoning Code, may, with the concurrence of the Planning Director, declare that the Conditional Use is null and void.

Adopted this 5th Day of August 2010

METROPOLITAN AREA PLANNING COMMISSION

G. Nelson Van Fleet, Chair MAPC

ATTEST:

John L. Schlegel, Secretary

WICHITA–SEDGWICK COUNTY
METROPOLITAN AREA PLANNING

AGENDA ITEM NO. 9

STAFF REPORT

MAPC, August 5, 2010
DAB V, August 2, 2010

CASE NUMBER: CON2010-00029

APPLICANT: City of Wichita – Information Technology Department c/o Dennis McHugh (owner/applicant)

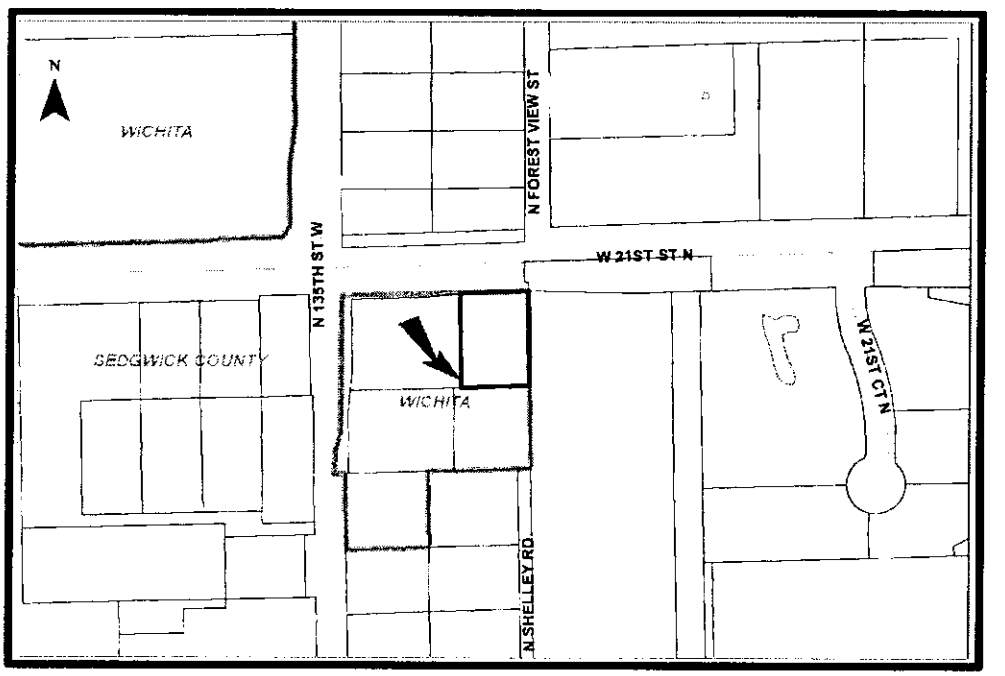
REQUEST: Conditional Use for a wireless communication facility.

CURRENT ZONING: SF-5 Single-Family Residential ("SF-5")

SITE SIZE: A 13-foot (x) 13-foot tower site located within approximately 0.85-acres.

LOCATION: Generally located on the southeast corner of 21st Street North and 135th Street West. (District V)

PROPOSED USE: 120-foot self-supporting, lattice, microwave tower



BACKGROUND: The City of Wichita – Information Technology Department (IT) is requesting a Conditional Use that would permit the construction of a 120-foot tall, galvanized steel, lattice, self-supporting, microwave communication tower. The 13-foot (x) 13-foot tower site is located on the 0.85-acre Reserve A, Northwest Main Pump Station Addition, located east of 135th Street West on the south side of 21st Street North. The proposed tower id located next to the LC Limited Commercial ("LC") zoned City Fire Station #21. Although the site is listed as a "Property Eligible for an Administrative Permit," new wireless communication facilities over 65 feet in height in the SF-5 zoning district require a Conditional Use. There are three 120-foot tall, galvanized steel, lattice, self-supporting, microwave communication tower that will be considered by DABs V and VI and the MAPC this week (August 2 and 5); CON2010-28, CON2010-29 and CON2010-30. VAC2010-19, a request to amend the uses allowed in the subject site, is associated with CON2010-219 and will be considered at the July 29 SD meeting and today's MAPC meeting.

The proposed facilities are three of at least nine facilities the City has operating or will operate to provide constant communication, remote monitoring and control of all planned and future (at this time) City Transit services, Public Works traffic signal upgrades, City Fire's in house training and conferencing, and the Aquifer Storage and Recovery ("ASR") and water production facilities. The towers will be part of a microwave signal network that operates via point-to-point links between control-monitoring locations. These sites and the others were selected on several, but not limited to, criteria: (a) a survey for the network design regarding spectrum analysis and the required line-of-site locations, and; (b) the three cases for today's consideration are all are located on Fire Station sites, which are manned continuously and provide a level of security typically not provided by parks or other City facilities.

The applicant has stated that this microwave signal requires a tower with a much lower tolerance for deflection/sway by wind or by asymmetrical solar heating (stated as the 99.9 percent reliability standard), than your typical broadband signal used by cell phone services, which are typically located on (swaged or slip joint construction) monopoles. The applicant contends that the proposed 120-foot lattice tower(s) meets the 99.9 percent reliability standard, while meeting the intent of the "Wireless Communication Master Plan" (Wireless Plan) for the design of a tower to "Minimizing the height, mass or proportion of the facility to minimize conflict with the character of its proposed surroundings." The applicant has the opinion that a 120-foot monopole used for a microwave signal (bolted-flanged construction) that would met the 99.9 percent reliability standard presents more obtrusive mass to its surroundings than the proposed lattice tower. The proposed lattice tower will be 9-feet wide at its base, tapering to a 3-foot width at the height of 60 feet and maintaining the 3-foot width for the remaining 60 feet of the 120 foot tall tower. A 120-foot tall monopole constructed to meet the 99.9 per cent reliability standard would be 9-foot wide at its base tapering to and 3-foot width at the top.

Historically the other public entity in the City or County using this type of microwave technology is USD #259, which established these towers in 1988 prior to the adoption of the Wireless Plan in 2000. At that time, USD #259 constructed lattice, self-supporting, microwave communication towers, with no co-location capabilities. At the July 22, 2010, MAPC meeting, the MAPC denied USD #259's request to construct a replacement 80-foot lattice tower, and

recommended that they construct a monopole that would accommodate the equipment needed for the USD #259 microwave system.

The MAPC considered the ASR's 150-foot lattice tower, CON2009-43, at its March 18, 2010, meeting. The merits of a lattice tower as opposed to a monopole were considered, in reference to standards of the Wireless Plan. After much deliberation, the MAPC recommended approval of the lattice tower. CON2009-43 was approved by City Council (5-0) at its April 20, 2010, meeting.

The area on the south side of the site is zoned SF-5 and SF-20 Single-Family Residential ("SF-20"), and is developed with a City owned water purification facility, and single-family residences. Property located east of the site is SF-20 zoned agricultural fields and GO General Office ("GO") zoned medical services. Property located west of the site are the LC Limited Commercial ("LC") City Fire Station and (across 135th Street West) SF-20 zoned single-family residences and vacant land. Property located north of the site, across 21st Street North is zoned SF-20 and is developed as single-family residences, vacant SF-5 land, and the LC zoned YMCA. There is also a vacant NO Neighborhood Office ("NO") office property in this north area. The Cowskin Creek flows through this area.

The site plan shows the tower to be located east of the Fire Station and north of the water purification facility, with both serving as visual buffers between the proposed tower and the single-family residences located south and west of the site. The location of the 120-foot tower must be moved north on the site to met the compatibility height standards for a wireless facility, because of the abutting SF-5 zoned property. The abutting LC zoned property on the west side does not trigger the compatibility height standards, nor does proximity to 21st Street North. The tower site is gated, with a solid wooden fence, and a minimum of landscaping around it; the site meets the screening requirement, but needs more landscaping, specifically evergreens that will provide a year round visual buffer that will be taller than the solid wooden fence.

The proposed tower and associated communication frequencies and wattages must meet standards determined by the Federal Aviation Administration (FAA) to pose no hazard to air navigation; the FAA has provided a "Determination of No Hazard to Air Navigation." The No Hazard document has determined that no marking or lighting will be required for this tower. The proposed galvanized surface of the tower will blend into the sky more readily than a red or white paint, which meets the intent of the "Design Guidelines" of the Wireless Plan. The proposed tower will allow co-location for two other communication antennas; this meets the Design Guidelines of the Wireless Plan. The applicant has provided a survey of communication towers located within a mile of the site and there are none.

CASE HISTORY: The site was platted as Reserve A, Northwest Main Pump Station Addition and recorded with the Register of Deeds.

ADJACENT ZONING AND LAND USE:

NORTH:	SF-20, SF-5, LC	Single-family residences, vacant land, Cowskin Creek, YMCA
SOUTH:	SF-5, SF-20	Water purification facility, single-family residences

EAST:	SF-20, GO	Agriculture field, medical services, Cowskin Creek
WEST:	LC, SF-20	Fire Station, single-family residences

PUBLIC SERVICES: All utilities are available to the site. The site has access to 21st Street North, a paved two-lane arterial. The 2030 Transportation Plan shows 21st to become a four-lane arterial.

CONFORMANCE TO PLANS/POLICIES: The Wireless Communication Master Plan (Wireless Plan) is an element of the Comprehensive Plan that outlines the guidelines for locating wireless communication facilities. The Location Guidelines of the Wireless Communication Master Plan requires a Conditional Use for new undisguised ground mounted facilities over 65-feet in height in the SF-5 zoning district, that comply with the compatibility setback standards; the tower complies with the compatibility height standards; this is a tight site going north to south. The Design Guidelines of the Wireless Plan indicate that new facilities should: 1) Preserve the pre-existing character of the area as much as possible; There are no other communication towers within a mile of the site; this will be the first in this immediate area. However, the Wireless Plan recognizes that as the number of users increase, the need for additional coverage and capacity means location of towers around residential areas will become more common. An advantage for this site is that the area is not entirely developed. 2) Minimize the height, mass, or proportion of the tower; 3) Minimize the tower's silhouette, with monopoles favored over lattice type structures for up to 150-feet and a preference for antennas mounted flush to the support structure over triangular "top hat" antenna arrays; In reference to Standards 2 and 3, the applicant has the opinion that a 120-foot monopole used for a microwave signal (bolted-flanged construction) that would met the 99.9 percent reliability standard, presents more obtrusive mass to its surroundings than the proposed lattice tower. 4) Use colors, textures, and materials on the towers that blend in with the existing environment; The Determination of No Hazard to Air Navigation document has determined that no marking or lighting will be required for this tower. The proposed galvanized surface of the tower will blend into the sky more readily than a tower painted with red or white paints. 5) Conceal or disguise the tower as a flagpole, clock tower, or church steeple; Planning is not aware that these are options have been investigated. 6) Place towers in areas where trees and/or buildings obscure some or all of the facility; There are mature trees located east and south of the site. These trees, the water purification facility, and the Fire Station will help screen the site for the areas located east, west and south of the site. 7) Place towers on walls or roofs of buildings; The applicant has used this option when available, using the City Water tower at Webb Road and 53rd Street North, the KTA tower at Webb Road and I-135 and the City Hall roof, this option does not appear to be present in this area. 8) Screen towers through landscaping, walls, and/or fencing; The applicant has provided a solid fence around the site, but needs to provide more landscaping. All mature trees on the site need to be retained 9) Paint towers red and white instead of using strobe lighting; See #4 above. The application appears to meet most of these considerations.

RECOMMENDATION: The applicant has provided an explanation for the choice of this site and for requesting a 120-foot tall lattice tower over a monopole. The towers will be part of a microwave signal network that operates via point-to-point links between control-monitoring locations. These sites and the others were selected on several, but not limited to, criteria: (a)

a survey for the network design regarding spectrum analysis and the required line of site locations, and; (b) the three cases for today's consideration are all are located on Fire Station sites, which are manned continuously and provide a level of security typically not provided by parks or other City facilities. This location has started to develop with SF-5 and SF-20 Single-family residences, although most of the SF-20 land is undeveloped or is agricultural fields. GO zoned medical has been built in the area, as well as the LC zoned YMCA. This would be the first communication tower in this area's mile radius.

The applicant has stated that this microwave signal requires a tower with a much lower tolerance for deflection/sway by wind or by asymmetrical solar heating (stated as the 99.9 percent reliability standard), than your typical broadband signal used by cell phone services, which are typically located on (swaged or slip joint construction) monopoles. The applicant contends that the proposed 120-foot lattice tower(s) meets the 99.9 percent reliability standard, while meeting the intent of the "Wireless Communication Master Plan" (Wireless Plan) for the design of a tower to "Minimizing the height, mass or proportion of the facility to minimize conflict with the character of its proposed surroundings." The applicant has the opinion that a 120-foot monopole used for a microwave signal (bolted-flanged construction) that would met the 99.9 percent reliability standard presents more obtrusive mass to its surroundings than the proposed lattice tower.

In Staff's opinion the current request does not aim to circumvent the Master Plan's standard of equal accountability between a government agency/the regulatory authority and the private sector, but attempts to provide the most reliable structure for a microwave signal network that operates via point-to-point links between control-monitoring locations (which requires tower structural considerations that are not required for a broadband signal, typical of cell phone providers), and whose mass and silhouette has a minimal impact (no greater than a monopole constructed to transmit this microwave signal) on the immediate area. As required by the UZC and the Wireless Master Plan, all future requests made by other public and governmental agencies and the wireless industry will be considered by a case by case basis.

Based upon these factors and the information available prior to the public hearing, planning staff recommends that CON2010-00029 be APPROVED subject to the following conditions:

A. Allow a 120-foot tall, galvanized steel, lattice, self-supporting, microwave communication tower. The 13-foot (x) 13-foot tower site shall be located on the north side of the Fire Station, in Lot 1, Block 1, Fire Station 13 Addition.
B. All requirements of Art. III Sec. III.D.6.g. of the Unified Zoning Code shall be met.
C. The applicant shall obtain all permits necessary to construct the wireless communication facility, and the wireless communication facility shall be erected within one year of approval of the Conditional Use by the MAPC or governing body, as applicable.
D. The support structure shall be a "lattice" design that generally conforms to the approved site elevation and that is silver or gray or a similar unobtrusive color with a matte finish to minimize glare. Antennas mounted flush to the support structure are preferred over triangular "top hat" antenna arrays and the applicant needs to demonstrate why the "flush" arrangement does not work.

This recommendation is based on the following findings:

1. The zoning, uses and character of the neighborhood: The area on the south side of the site is zoned SF-5 and SF-20 Single-Family Residential ("SF-20"), and is developed with a City owned water purification facility, and single-family residences. Property located east of the site is SF-20 zoned agricultural fields and GO General Office ("GO") zoned medical services. Property located west of the site are the LC Limited Commercial ("LC") City Fire Station and (across 135th Street West) SF-20 zoned single-family residences and vacant land. Property located north of the site, across 21st Street North is zoned SF-20 and is developed as single-family residences, vacant SF-5 land, and the LC zoned YMCA. There is also a vacant NO Neighborhood Office ("NO") office property in this north area. The Cowskin Creek flows through this area.

2. The suitability of the subject property for the uses to which it has been restricted: The site could be continued to be used for the SF-5 uses as permitted by the UZC. A Conditional Use may permit a wireless communication facility of over 65 feet in SF-5 zoning, with conformance to the UZC and the Wireless Communication Master Plan. The proposed facility conforms to most of those guidelines. The tower will be part of a microwave signal network that operates via point-to-point links between control-monitoring locations. This network will provide constant communication, remote monitoring and control of all planned and future (at this time) City Transit services, Public Works traffic signal upgrades, City Fire's in house training and conferencing and the Aquifer Storage and Recovery ("ASR") and water production facilities.

3. Extent to which removal of the restrictions will detrimentally affect nearby property: Detrimental effects on the area around the site should be minimized to a degree by the Conditional Use standards of the UZC, which should limit noise, lighting, and other activity from adversely impacting these properties. The Wireless Plan recognizes that as the number of users increase, the need for additional coverage and capacity means location of towers around residential areas will become more common. Location on a Fire Station site that is listed as a "Property Eligible for an Administrative Permit" is favorable, as is the continuously manned level of security. Improvements to the communication technologies at the facility will benefit the region. The differences between the mass and silhouette of a self-supporting lattice tower and a monopole built for the microwave signal can be seen as minimal in regards to their impact with the character of the immediate area.

4. Conformance of the requested change to the adopted or recognized Comprehensive Plan: The Wireless Communication Master Plan (Wireless Plan) is an element of the Comprehensive Plan that outlines the guidelines for locating wireless communication facilities. The Location Guidelines of the Wireless Communication Master Plan requires a Conditional Use for new undisguised ground mounted facilities over 65-feet in height in the SF-5 zoning district, that comply with the compatibility setback standards; the tower complies with the compatibility height standards; this is a tight site going north to south. The Design Guidelines of the Wireless Plan indicate that new facilities should: