City of FRESNO

REPORT TO THE PLANNING COMMISSION

AGENDA ITEM NO. VIII-A
COMMISSION MEETING 6-04-14

APPROVED BY

DEPARTMENT DIRECTOR

June 4, 2014

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Development Services Division

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Development Services Division

SUBJECT: WORKSHOP ON PROPOSED REVISIONS TO THE WIRELESS TELECOMMUNNCATION POLICY

RECOMMENDATION

Staff requests guidance from the Planning Commission on revising the current Wireless Telecommunications Policy in order to address the industry's capacity needs.

EXECUTIVE SUMMARY

AT&T recently submitted a conditional use permit application which proposes to increase the width of a radome (antenna cover) on an existing wireless telecommunications tower (tower/pole) that exists on property located on the northwest corner of Bullard and West Avenues. This tower is built to the maximum tower size permitted by the current Wireless Telecommunications Facilities Policy and Procedure dated June 20, 2006. The maximum width of a radome allowed by the current policy is 36-inches (3-feet). The applicant is requesting to increase the size of this radome to 8-feet (more than double the width allowed) in order to accommodate additional antenna and other equipment on the tower.

Although this project is proposed on a specific piece of property, this application has been submitted as a test case. AT&T has 41 other similar towers in the City of Fresno that they wish to enlarge in the same manner. Based on the maximums allowed in the current policy, staff cannot approve this application. Staff acknowledges that AT&T needs to enlarge their existing facilities and is seeking guidance from Planning Commission and ultimately from City Council on how to accommodate the needed expansions.

Staff previously drafted modifications to the current wireless telecommunications policy in 2013 but the revised policy modifications were denied by Council in October of 2013. A new policy is needed because the existing policy does not address many of the needs of the wireless telecommunications industry. As part of this staff report, several options that AT&T has proposed are provided in more detail. Staff would like to get the Commissioners' opinions on which option may work best in the City of Fresno. Exhibit B is a table depicting Wireless Telecommunications Facilities requirements in other local jurisdictions for reference.

BACKGROUND / ANALYSIS

Staff cannot approve the proposed wireless telecommunication tower enlargement because the tower is built to the maximum tower size permitted by the current Wireless Telecommunications Facilities Policy and Procedure dated June 20, 2006.

The following conditions come from the 2006 policy (full policy attached as Exhibit A):

SINGLE TELECOMMUNICATION CARRIER ON A SINGLE MAST

1. *The proposed mast shall be a slim line monopole design and not exceed a height of 70 feet.*

2. *Slim line monopole shall not exceed an 18-inch diameter from base to top.*

3. *Antennas may be vertically stacked not exceeding a total measurement of 30 feet downward from the top of the mast.*

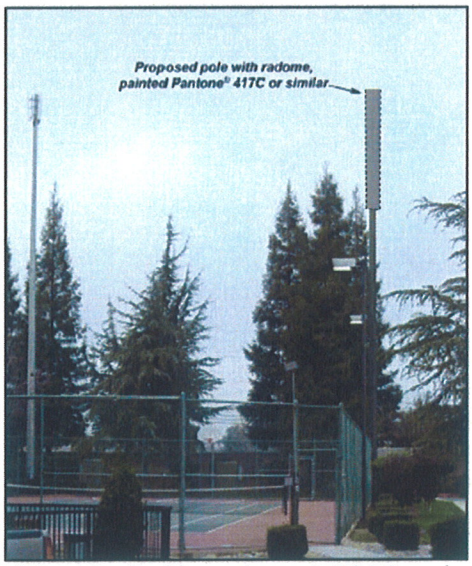
4. *All electrical conduit and/or vinyl-coated coaxial cabling shall be internal to the mast or radome/sheath from the base to the antenna, and shall not be visible.*

5. *All antennas shall be installed inside a radome.*

6. *A radome (sheath covering) shall be installed covering the uppermost portion of the monopole and all antennas.*

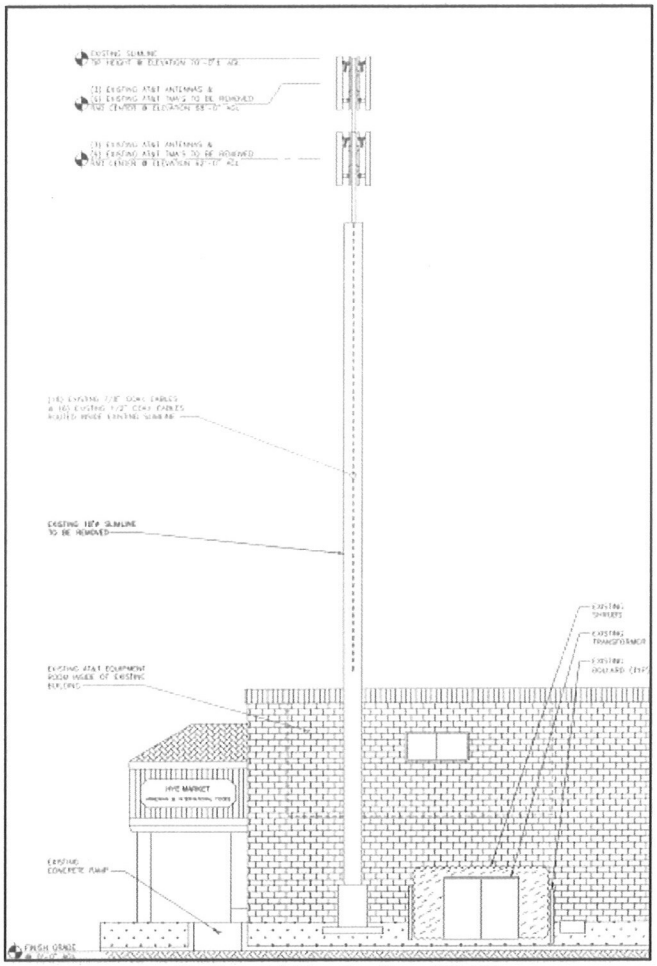
7. *The radome shall not exceed 36 inches in diameter and not be more than 30 feet in vertical length from the top of the mast.*

The problem with these requirements is that they were developed at a time when the telecommunications industry was trying to go from single array poles (one row of antennas, containing 3 antennas) to two or three array poles containing 6-9 antennas per pole. In the picture below, the pole on the left is what many poles pre-2006 looked like. The pole on the right depicts the type of pole that was ultimately allowed by the 2006 policy. Technology and data usage has changed since 2006 and thus the industry's needs have changed.

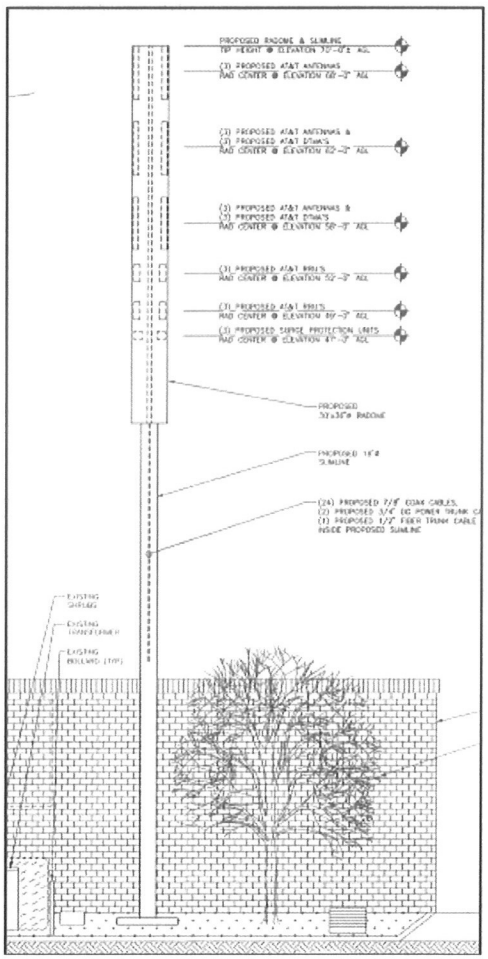


Pre-2006 pole (left) and post-2006 pole (right)

In 2012, AT&T submitted applications requesting to upgrade 42 of their sites in Fresno. They proposed to modify poles with 1 and 2 antenna arrays to poles with 3 antenna arrays and other equipment. Below is a before and after of the 2012 approved modification of the Bullard and West tower. This tower was proposed, approved, and built to the maximum size allowed under the 2006 policy.



Bullard/West site- 2012



Bullard/West site- Present

As mentioned above, staff acknowledges that AT&T needs to enlarge their existing facilities and is seeking guidance from Planning Commission on how to accommodate these needed expansions. The applicant has proposed a new 96 inch (8 ft.) diameter radome to replace the existing 36 inch (3 ft.) diameter cellular tower radome. This, however, is not the applicant's only option. Below are images of other options that AT&T is considering to meet their needs, followed by some pros and cons of each option.

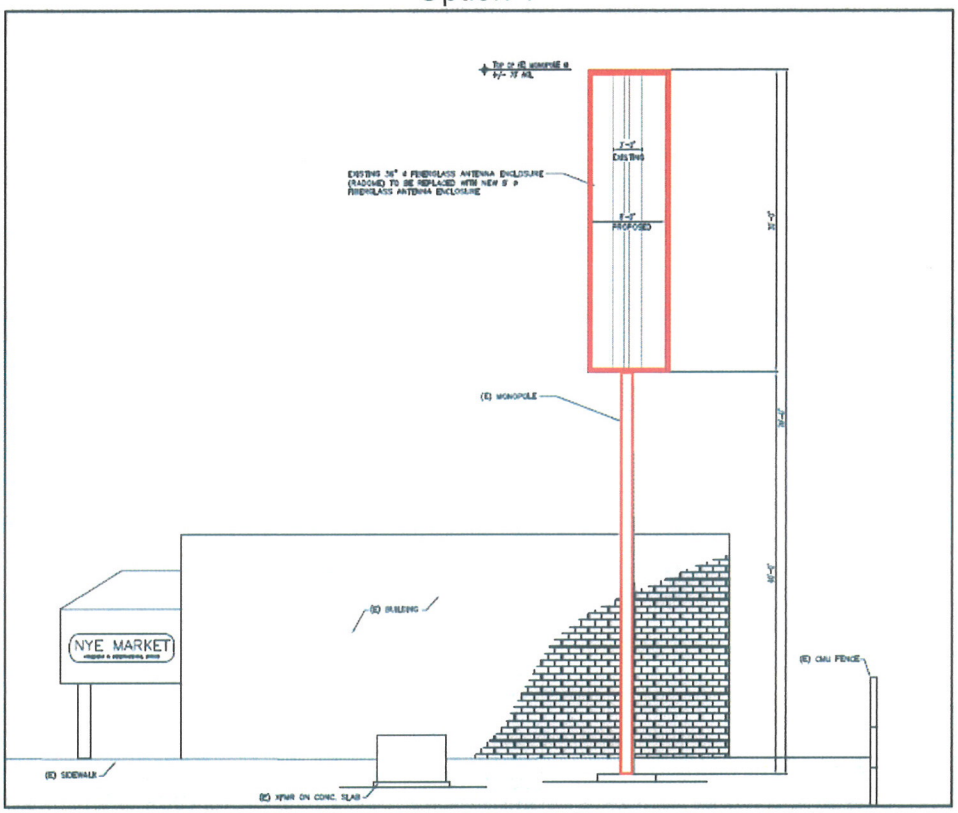
<u>Option 1</u>

Option 1 proposes an 8-foot wide radome on the existing 70-foot tall pole that will be 30-feet in length. This is the option officially submitted by AT&T under the CUP request.

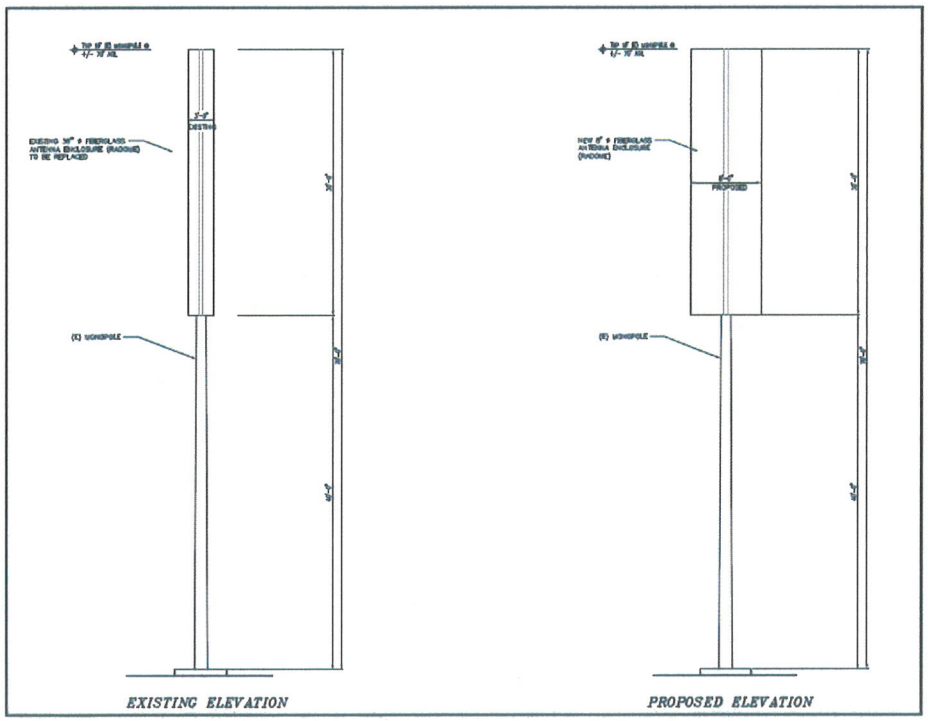
Pros: This option meets the needs of AT&T

Cons: The appearance of the pole becomes very top heavy and no longer blends in with the surroundings.

Option 1



Proposed 8-foot wide radome shown in relationship to existing building



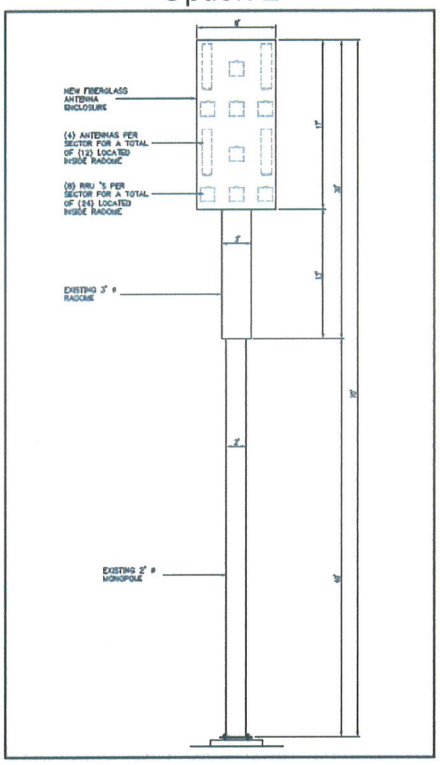
Option 2

Option 2 proposes an 8-foot wide radome on the existing 70-foot tall pole that will be 17-feet in length with a 3-foot wide radome below it that will be 13 feet in length. The pole tapers into a 2-foot wide pole.

Pros: This meets the needs of AT&T.

Cons: The appearance of the pole becomes very top heavy and no longer blends in with the surroundings. This pole will have 3 different widths, which may be visually distracting.

Option 2



Before and After of Option 2 (different site)

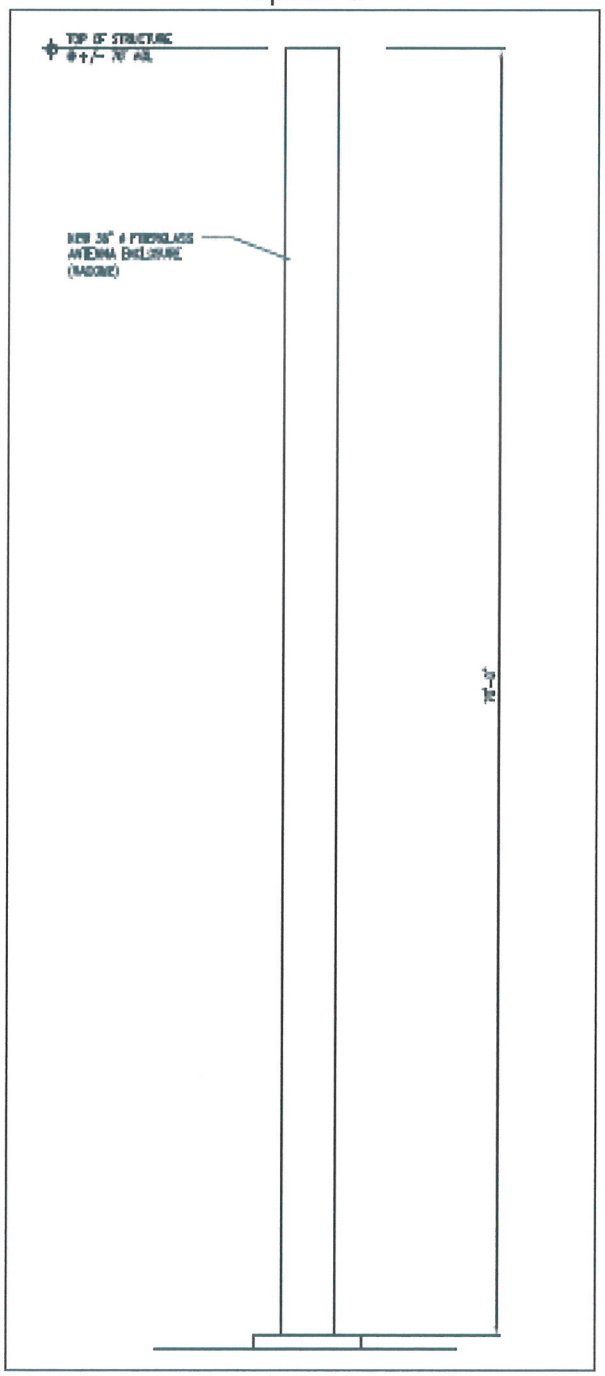
Option 3

Option 3 proposes a 3-foot wide radome on the existing 70-foot tall pole that will span the entire length of the pole.

Pros: This pole may blend better into the environment.

Cons: This is the least favored option by AT&T. According to AT&T this is not the best solution for the best performance.

Option 3



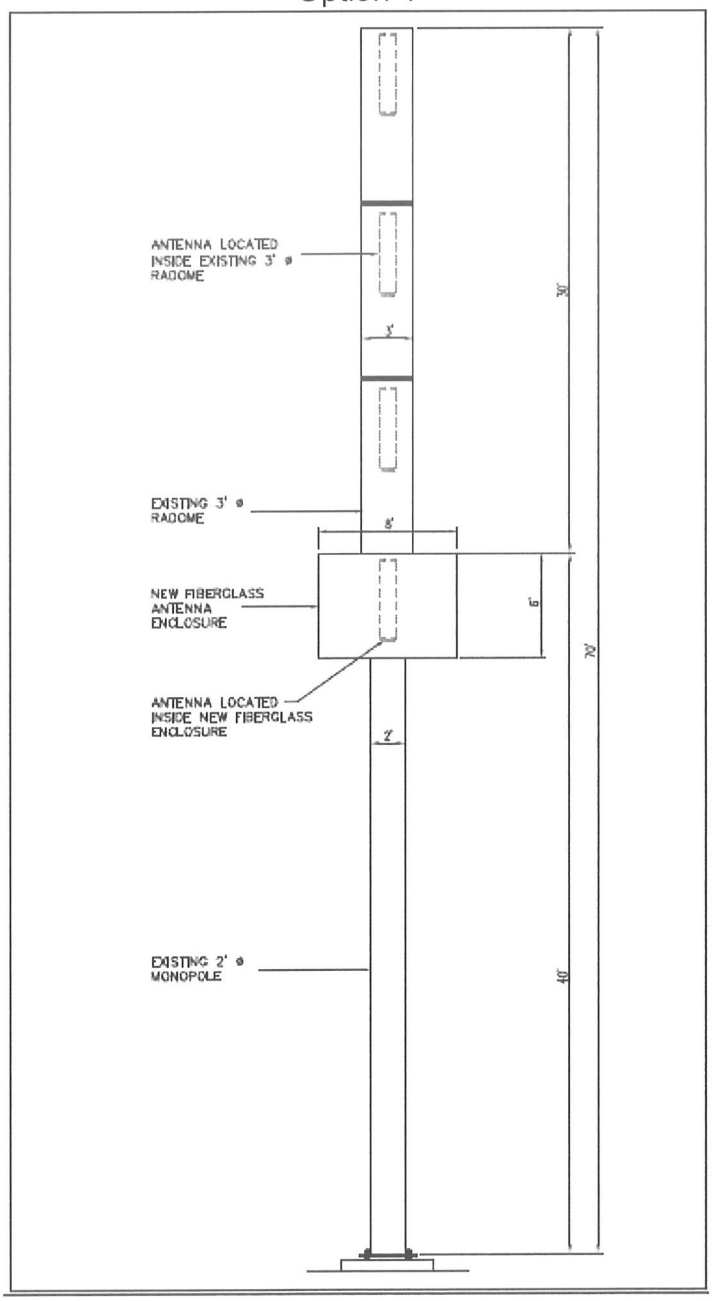
Option 4

Option 4 proposes an 8-foot wide radome on the existing 70-foot tall pole that will be 6-feet in length and will be on the bottom of the pole rather than the top. Above this will be a 36-inch wide radome that will be 30-feet in length. The remainder of the pole will be 2-feet wide (rather than 18-inches).

Pros: Only a small area of the pole will be 8-feet wide.

Cons: It may look a little strange to go from 2-feet to 8-feet and then 3-feet at the top. This pole will have 3 different widths, which may be visually distracting.

Option 4



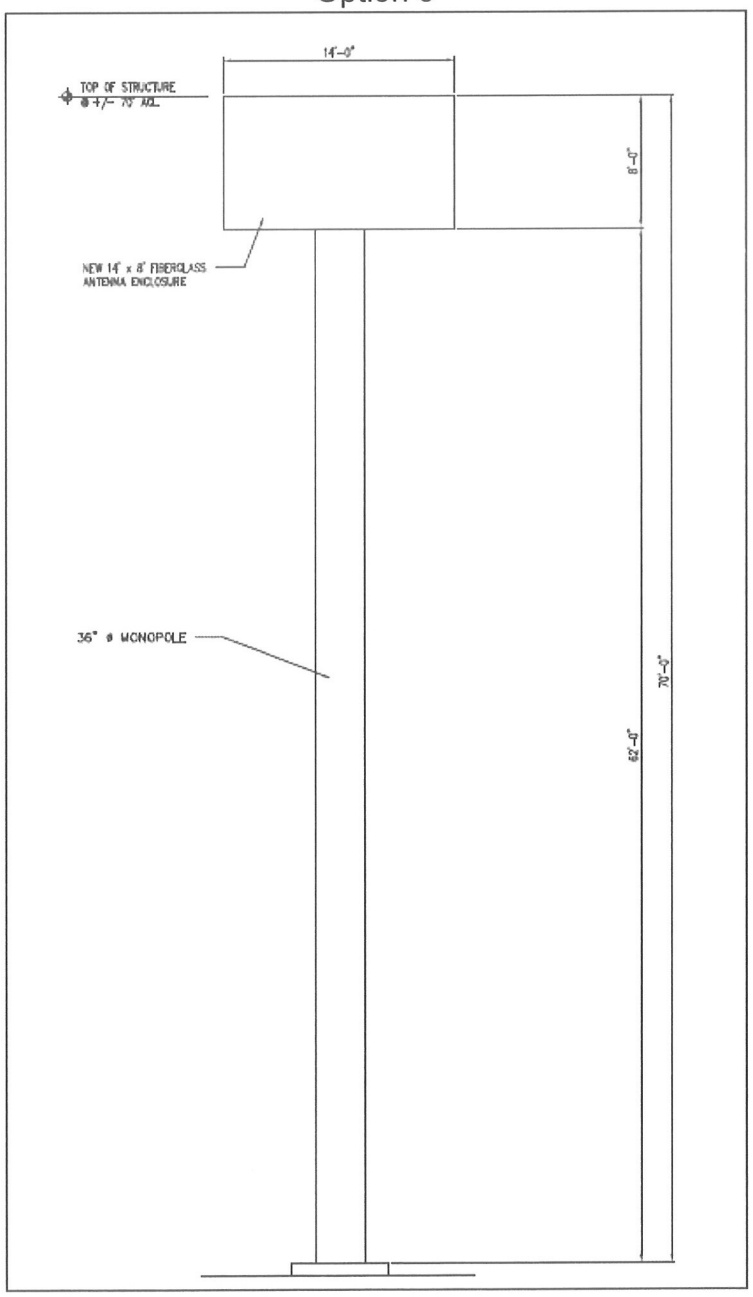
Option 5

Option 5 proposes a 14-foot wide radome on the existing 70-foot tall pole that will be 8-feet in length. The remainder of the pole will be 36-inches wide (rather than the current 18-inch pole).

Pros: The pole will be very top heavy, but since the radome will only be 8-feet long, it may not be as much of a visual nuisance as other options. This option is preferred by AT&T.

Cons: Going from a 3-foot wide radome to a 14-foot wide radome is a huge change. If we are going to allow this huge table-like structure on top of the pole, it may be better to just allow them to do it without a radome (Option 7).

Option 5



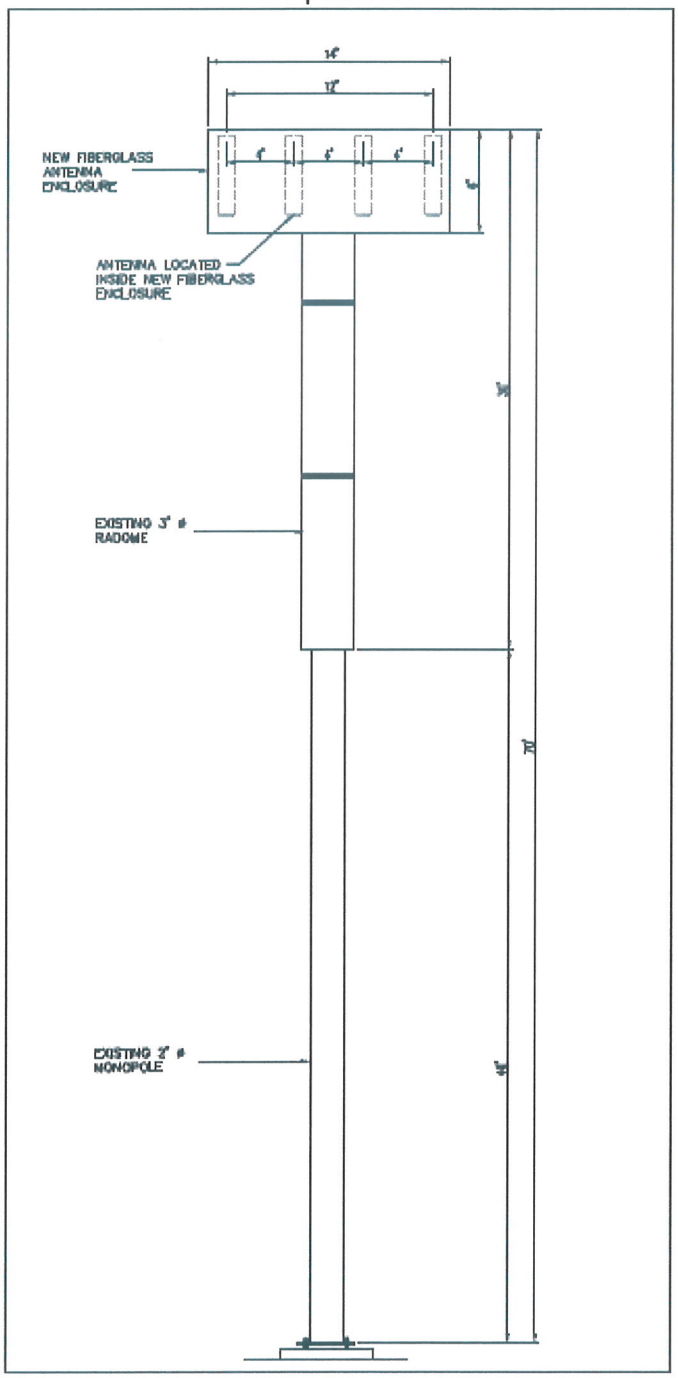
Option 6

Option 6 proposes a 14-foot wide radome on the existing 70-foot tall pole that will be 8-feet in length. Below this will be a 3-foot wide radome that will be 30-feet in length. The remainder of the pole will be 24-inches wide (rather than the current 18-inch pole).

Pros: This option will meet AT&T's needs.

Cons: This pole will have 3 different widths, which may be visually distracting.

Option 6



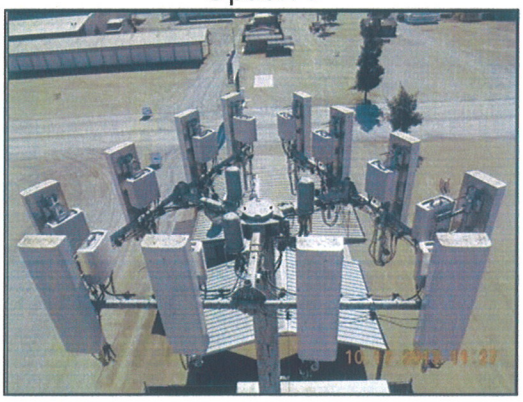
Option 7

Option 7 proposes a 14-foot wide antenna array on the existing 70-foot tall pole that will be 8-feet in length. No new radome is proposed on this pole, although it is assumed that the existing 3-foot wide radome would remain below this exposed array, making it similar to Option 6, except that the antennas would be exposed. This is not an option that AT&T is proposing.

Pros: Some people may prefer exposed antennas over concealing them within a radome.

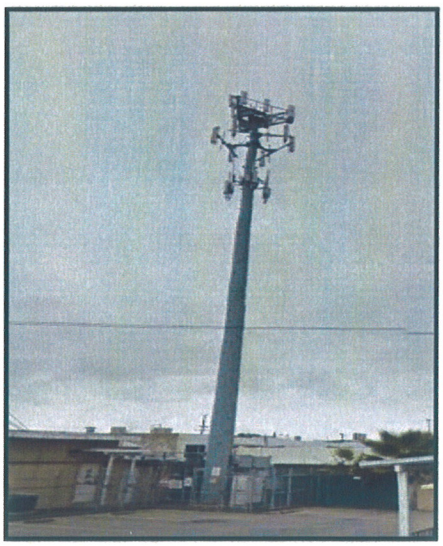
Cons: Going from a 3-foot wide radome to a 14-foot wide exposed antenna array is a huge change and will result in a significant visual impact. Option 7 also moves the City in a new direction by allowing exposed antennas on existing stealth towers.

Option 7



Additional concerns with Option 7

One of staff's concerns with allowing exposed antennas is that it leads to a slippery slope. Fresno allows these poles to be placed in any zone district, including residential districts. Poles with exposed antennas, especially on poles close to each other may result in visual clutter. Technology will keep changing, but at some point, the City has to draw the line. Below is an example of a nonconforming tower in the City of Fresno that has approximately 20 exposed antennas.



Option 8

Option 8 proposes keeping the current size maximums established under the 2006 policy, but proposes to allow a second pole in close proximity (within 300-feet) of another pole.

Pros: Poles will stay the same size as currently allowed. This may be a good option on large sites that are heavily landscaped with tall trees and where the poles are located towards to rear of the property, as in the example depicted below (northeast corner of Herndon and West).

Cons: Multiple poles on one site may result in more visual clutter than one larger pole.

Option 8

Conclusion

In conclusion, staff requests further guidance from the Planning Commission on how to revise the current Wireless Telecommunication Policy.

Attachments: Exhibit A: Wireless Telecommunications Facilities Policy and Procedure dated June 20, 2006
Exhibit B: Table depicting Wireless Telecommunications Facilities requirements in other local jurisdictions

Exhibit A

Wireless Telecommunications Facilities Policy and Procedure dated June 20, 2006

CITY OF FRESNO
PLANNING AND DEVELOPMENT DEPARTMENT

Policies and Procedures

ENTTILEMENTS: GENERAL **ISSUE NO**. 33

TITLE: WIRELESS TELECOMMUNICATIONS FACILITIES

DATE: June 20, 2006

STATEMENT

To better serve our customers, we have modified the procedures for design, analysis and processing of a special permit (conditional use permit) to authorize the installation and operation of a wireless telecommunications facility. Due to changing technology, competition between license purveyors, and the general geography of the Fresno/Clovis Metropolitan Area, the City of Fresno has received numerous conditional use permit applications for installation of wireless communications facilities at various locations throughout the city. The purpose of these changes is to promote quality, clarity and consistency in applying the requirements and guidelines for the acceptance, processing and approval of these applications, while maximizing the utility of existing and future wireless telecommunications facilities.

In order to preserve the integrity of local aesthetics, attractive external appearances and an appealing environment, the review of Communication Tower Conditional Use Permit Applications policy was approved by the City Council on November 19, 2001. With this and future volumes, the Department is setting written policies for the Planning and Development Department and service provider for consideration in the design review, analysis and processing of wireless communications facility conditional use permit applications.

POLICY & PROCEDURE

I. POLICY GUIDELINE:

A. SINGLE TELECOMMUNICATION CARRIER ON A SINGLE MAST

1. The proposed mast shall be a slim line monopole design and not exceed a height of 70 feet.

2. Slim line monopole shall not exceed an 18-inch diameter from base to top.

3. Antennas may be vertically stacked not exceeding a total measurement of 30 feet downward from the top of the mast.

4. All electrical conduit and/or vinyl-coated coaxial cabling shall be internal to the mast or radome/sheath from the base to the antenna, and shall not be visible.

5. All antennas shall be installed inside a radome.

6. A radome (sheath covering) shall be installed covering the uppermost portion of the monopole and all antennas.

7. The radome shall not exceed 36 inches in diameter and not be more than 30 feet in vertical length from the top of the mast.

8. Emergency Global Positioning Satellite (GPS) antenna shall be directly mounted onto the fascia of the facility or out of the line of sight from public views of the facility. A GPS antenna unit in the line of sight is not permissible.

9. Associated with each wireless telecommunications facility shall be a parking area identified for service vehicles through appropriate signage and/or striping, or through identifying adequate public parking in close proximity to the facility available to accommodate service vehicles.

10. Attachment of a microwave dish is not permittable.

11. A telecommunication mast may exceed 70 feet in height only when special conditions exist, such as attachment of additional wireless antennas to existing telecommunications towers; or when new facilities are to be located inside of the City's C-4 zoned Central Business District will be considered on a case-by-case basis.

12. A telecommunication mast with a maximum height of 100 feet, not exceeding a 24-inch diameter from base to top, a radome not exceeding 36 inches in diameter, with all antennas on the top 40 feet of the mast, may be allowed in public and private open space areas a minimum of five acres in size and in industrial areas will be considered on a case-by-case basis. Existing structures in these open space and industrial areas (i.e., light standards and other towers) may also be utilized for antennae.

B. <u>CO-LOCATION OF MULTIPLE TELECOMMUNICATION CARRIERS ON A SINGLE MAST</u>

1. The proposed telecommunication mast for collocation of multiple carriers shall be a 70-foot to 80-foot slim line monopole design. Extension of an existing 70-foot mast may be considered on a case-by-case basis.

2. Slim line monopole shall not exceed a 24-inch diameter from base to top.

3. Antennas may be vertically stacked not exceeding a total measurement of 40 feet downward from the top of the mast.

4. All electrical conduit and/or vinyl coated coax cabling shall be internal to the mast or radome/sheath from the base to the antenna, and shall not be visible.

5. All antennas shall be installed inside a radome.

6. Antennas may be vertically stacked not exceeding a total measurement of 40 feet downward from the top of the mast.

7. The radome shall not exceed 36 inches in diameter and shall not be more than 40 feet in vertical length from the top of the mast.

8. Emergency Global Positioning Satellite (GPS) antenna shall be directly mounted onto the fascia of the facility or out of the line of sight from public views of the facility. A GPS antenna unit in the line of sight is not permissible.

9. Associated with each wireless telecommunications facility shall be a parking area identified for service vehicles through appropriate signage and/or striping, or through identifying adequate public parking in close proximity to the facility available to accommodate service vehicles.

10. Attachment of a microwave dish is not permissible.

11. A telecommunication mast may exceed 80 feet in height only when special conditions exist, such as attachment of additional wireless antennas to existing telecommunications towers; or when new facilities are to be located inside of the City's C-4-zoned Central Business District will be considered on a case-by-case basis.

12. A telecommunication mast with a maximum height of 100 feet, not exceeding a 24-inch diameter from base to top, a radome not exceeding 36 inches in diameter, with all antennas on the top 40 feet of the mast, may be allowed in public and private open space areas a minimum of five acres in size and in industrial areas will be considered on a case-by-case basis. Existing structures in these open space and industrial areas (*i.e.*, light standards and other towers) may also be utilized for antennae.

C. <u>EXISTING LATTICE TOWER</u>

1. Placement of antenna and operational equipment on an existing lattice structure will be considered on a case-by-case basis.

D. <u>LANDSCAPING/FENCING</u>

1. A landscaped buffer strip shall be constructed, contain and maintain deciduous and evergreen trees and shrubs, per City of Fresno landscaping requirements and standards along the exterior perimeter of any facility equipment compound which fronts onto a major or local street and is visible from the public right-of-way.

2. The landscaped buffer strip shall be at least 3feet wide, or wider, with a raised curb encircling the facility as may be required by the Fresno Municipal Code (FMC) or through the special permit issuance and appeals process.

3. There shall be a 6-foot high solid wall (Public Works Department, Standard Drawing P-35) or approved architecturally-designed solid fence installed surrounding the equipment compound. Slatted chain-link fencing will only be considered when the equipment facility is substantially masked from public view (Public Works Department, Standard Drawing P-45), or is located in a commercial or industrial zone district.

2. PROCEDURAL GUIDELINES:

A. Applicants proposing to install and operate a new wireless telecommunications facility in the City of Fresno, will be subject to these guidelines and must obtain a special permit (conditional use permit) issued through the City of Fresno Planning and Development Department.

B. Applicants with an approved special permit (conditional use permit) proposing to add an additional carrier to a wireless telecommunication facility in the City of Fresno, will be subject to these guidelines and required to amended the special permit by submitting an Amended Permit (Minor) application to the City of Fresno, Planning and Development Department for processing.

C. Modification to an existing facility related to replacement of equipment, antennas, cabinets, which do not materially change the operations of the facility may be accomplished through amending the special permit (conditional use permit) by submitting a Revised Exhibit (Major) application.

D. Modification to an existing wireless communications facility will be subject to these guidelines set forth in this policy entitled Wireless Telecommunications Facilities, Issue No. 33, unless determined by the Planning and Development Department Director to be inappropriate.

E. Submittal of a special permit (conditional use permit) application may cause a review of planning and building permits activity for the subject property to ensure compliance with the Fresno Municipal Code (FMC). An identified planning/building or code violation may require the property owner to make necessary correction prior to the issuance of a special permit.

F. Site Plan drawings are required and shall include all boundaries, structures and features of the subject property, including but not limited to, north arrow, scale, public utility poles and boxes, guy wires, signs, fire hydrants, dimensioning of all parking stalls, loading zone(s), existing and proposed building, labeling of building square footage, trash receptacles and tree wells located within the existing and proposed public rights-of-way, with details as required in the following:

1. Elevation drawings shall show all mast and radome dimensions, placement and design features.

2. Provide a drawing detail which includes antenna array design and width and depth of antennas, both proposed and existing.

3. Provide an elevation drawing of vertical stacking of antennas.

G. The Director of Planning and Development may condition additional architectural features (monopine, monopalm, horizontal installation, application of color) to a mast or facility structure to ensure compatibility with the surrounding physical environment and conformity to with these guidelines.

H. All required improvements shall be in accordance with FMC, Section 12-405-B, and constructed in accordance with the Standard Specifications and Standard Drawings of the City of Fresno, Public Works Department.

I. There shall be no new wireless telecommunications facility located within 100 yards of an existing wireless telecommunications site.

J. This Policy and Procedures supersede the previously guidelines enacted by the Fresno Planning Commission and City Council.

3. DEFINITIONS

A. Wireless Telecommunications Facility – A combination of ground mounted equipment (often in cabinets or shelters), necessary utilities, and a slim line monopole with supporting antennas and cabling required to provide communications services. This secured (fenced) compound contains the infrastructure necessary to provide wireless services to the community.

B. Mast – See slim line monopole

C. Slim Line Monopole – A continuous, smooth, round cross section monopole with no cut-outs or exterior attachments such as climbing pegs

D. Radome – The purpose of the radome is to conceal the antennas mounted to the telecommunication mast. This cylindrical, external sheath covers the antenna arrays mounted to a mast. The radome is constructed of an RF transparent material and painted to match the pole a condition of approval.

E. Co-Location of Multiple Telecommunication Carriers – A wireless telecommunication facility for more than one carrier or communications provider which includes ground equipment, mast, radome, antennae, and other structures to support the operation of wireless telecommunication facility.

4. REFERENCES – Applicable Fresno Municipal Code Sections:

Section 12-304-B-11. USES PERMITTED SUBJECT TO CONDITIONAL USE PERMIT.

The following uses may be permitted, except where expressly prohibited, when such uses are deemed by the Director or the Commission to be essential and desirable for the public welfare and convenience and when such uses are in conformity with the General Plan and its objectives, subject to the issuance of a Conditional Use Permit in accordance with Sections 12-405 and 12-406.

11. Public utilities and public service structures, uses and buildings, except as otherwise provided in this Zoning Ordinance.

Section 12-405-A-2 CONDITIONAL USE PERMIT.

A conditional use permit shall be granted only when it is found that:

Finding 1: All applicable provisions of this Code are complied with and the site of the proposed use is adequate in size and shape to accommodate said use, and accommodate all yards, spaces, walls, and fences, parking, loading, recycling areas, landscaping, and other required features (Section 12-405-A-2.a.).

Finding 2: The site for the proposed use relates to streets and highways adequate in width and pavement type to carry the quantity and kind of traffic generated by the proposed use (Section 12-405-A-2.b.).

Finding 3: The proposed use will not be detrimental to the public welfare or injurious to property or improvements in the area in which the property is located. The third finding shall not apply to uses which are subject to the provision of FMC, Section 12-306-N-30 (Section 12-405-A-2.c.).

Section 12-405-B: CONDITIONS.

1. The issuance of any special permit may be subject to such conditions as deemed necessary to be appropriate or necessary to assure compliance with the intent and purpose of this Zoning Ordinance and established general and specific plans and policies of the city to protect the public health, safety, or welfare. . . *[et seq.]*

Section 12-406. SPECIAL PERMITS; PROCEDURES.

This section shall govern the procedure for the issuance of the special permits set forth in Fresno Municipal Code Section 12-405. . . *[et seq.]*

Section 12-306-N. SPECIAL STANDARDS OF PRACTICE AND REGULATIONS

23. Water Efficient Landscaping Standards (In its entirety).
24. Landscaping (In its entirety).

5. APPLICABLE POLICIES AND PROCEDURES:

Performance Standards for Parking Lot Shading, Planning and Development Department

Anti-Graffiti Landscaping, Landscaped Buffer Development and Planting Standards, Planning and Development Department

Design Guidelines for Buffers/Median/Street Trees, Department of Public Works

Exhibit B

Table depicting Wireless Telecommunications Facilities requirements in other local jurisdictions

Wireless Telecommunications Requirements in Other Local Jurisdictions					
	Height	Width	Setback	Distance	Equipment Bldgs
Bakersfield	**65 ft** or 20% above existing adjacent objects, whichever is less (Res, Ag, Os) **125 ft** or 20% " "(Ind, Com) **15 ft** or 20% of building height if roof mounted, whichever is less		**50 ft** from property line on public/private street **50 ft** if adjacent lot residential (camouflaged) **300 ft** if adjacent lot residential (uncamouflaged)		12 ft in height 750 sq ft in area 20 ft from property line if adjacent lot residential
Long Beach	**55 ft** (1 carrier) in res/inst **60 ft** (2 carriers) in res/inst **65 ft** (3 carriers) in res/inst **≤ 120 ft** in any zone district	Screen diameter ≤ **50% greater** than that of the pole Antenna as **6"** from pole			
Madera	Installing an antenna on an existing tower of any height must add no more than 20 ft of height to that tower		Setback = height of tower including antennas, plus 20 ft from any off-site residential structure	Towers greater than 90 ft not to be within ¼ mile of existing +90 ft tower (unless in indst/com zones)	
Merced	**70 ft** in C-O/C-N zones **120 ft** in C-C/C-T/C-G zones		Towers ≤ 125% of the height limit of the zone in which they are located - Same as zone		Setback according to requirements

	150 ft in industrial zone		setback Towers ≥ 125% of the height limit of the zone in which they are located – Same as zone or one foot for every 10 feet of total tower height, whichever is greater		of zone in which they are located
Riverside	Same as zone *or* If in public right-of-way – same as zone height of property nearest to and adjacent to the facility to ensure neighborhood compatibility		Setback same as zone where located 75 ft from residential structure		
San Jose	**150 ft** on non res/non urban land use designations **160 ft** on existing PG&E substation/high tension line Or maximum allowable height established elsewhere in code, whichever is greater				
Stockton	**75 ft** (If uncamouflaged, no more than 10 ft above adjacent roof line regardless of the overall structure height)		Setback = to height of tower plus 25 ft if adjacent to res.	Major facilities not within 500 ft of residential; and, not with 1000 ft of another major facility	
Visalia	**25 ft** above zone height		Towers not permitted in res/rural res/ag		