FRANCIS

The Francis Law Firm, PC

112 E. Pecan Street, Suite 550
San Antonio, Texas 78205
Tel: 210.222.1100
Fax: 210.222.2468
www.francislawfirm.com

W. Bebb Francis, III
Direct: 210.222.1112
wbfrancis@francislawfirm.com

VIA EMAIL AND FEDEX

July 23, 2019

Rachel Teixeira
Planner II
Planning & Community Development Department
City of Colorado Springs
30 S. Nevada Avenue, Suite 105
Colorado Springs, CO 80903

Re: 575 Airport Creek Point (DN01471G)
File No. CPC CM1 18-00100

Dear Ms. Teixeira:

As we have discussed, I am working with Capital Telecom Holdings II LLC ("Capital Telecom") in connection with its pending Conditional Use Application CPC CM1 18-00100.

Following up on your call with Linda Bailes, enclosed are copies of the following documents which have been revised to show the address for the site as 575 Airport Creek Point.

Duplicate sets of the following revised documents are being submitted to you via email and overnight courier:

1. Capital Telecom's submittal letter;
2. Search Area Summary;
3. Tax Parcel Map of Surrounding Area;
4. Antenna Specifications; and

FIGURE 7

5. WT Group Letter with Photo Simulations;

6. Two full 24x36 sized Site Plans; and

7. One reduced 11x17 sized Site Plan.

Thank you and I look forward to continuing working with you in connection with Capital Telecom's Application.

Yours very truly,

W. Bebb Francis, III

cc: Mr. Thomas Waniewski
Capital Telecom Holdings II LLC

FIGURE 7

Capital Telecom's Submittal Letter

FIGURE 7

CAPITAL
TELECOM

June 19, 2019

Rachel Teixeira
Planner II
Planning & Community Development Department
City of Colorado Springs
30 South Nevada Avenue, Suite 105
Colorado Springs, CO 80901-1574

RE: 575 Airport Creek Point (DN01471G)
File No. CPC CM1 18-00100

Dear Ms. Teixeira:

This letter serves as a response to your re-review dated October 19, 2018 for the proposed telecommunication site located at 575 Airport Creek Point. We have spent the past few months working with the property owner and T-Mobile to see what changes could be made to the proposed plan relating to the height of the installation, as well as the location and other characteristics. We will address each of the items in your letter below.

Land Use Review Comments

- The Search Area Summary has been modified to include the three criteria for Conditional use and is attached hereto.
- The comments received from Water Resources Engineering are addressed below.
- In response to the two proposed locations, we have the following response:
    - Relocate to the Northeast Corner of 575 Airport Creek Point lot
        - This relocation is not possible since the area indicated by City Planning is either in the Right of Way for the highway, or on property not owned by our landlord. Additionally, the lots on the Northeast Corner are occupied by a McDonald's with no additional room for a 50' x 50' compound, as well as the hotel lot to the south and the proposed development slightly north of the current proposed location. Attached please find tax maps that indicate the lots in the area.
    - Redesign the monopine as a light pole structure in the proposed location
        - A light pole structure will not accommodate the antennas that T-Mobile intends to use for this site. Attached are antenna specifications detailing the size of those antennas. Quite simply, the antennas will not fit in a flagpole design and a light pole will need the antennas attached to the exterior, which will look like a regular monopole. The photo-simulations have been revised to accurately portray the monopine and we believe that it screens the antennas and meets

FIGURE 7

the value and qualities of the surrounding neighborhood. The revised photo-simulations together with a letter from WT Group (explaining the revisions to the photo-simulations) are attached.

Other City Departments - Water Resources Engineering

- Mr. Scherer made reference to noting on the plans whether the site was within the floodplain. The location of the site is not within the floodplain boundary, so no additional coordination with the Regional Floodplain Administrator is required.
- The total proposed area of earth disturbance associated with this project is 2500 square feet.
- The proposed access easement consists of an existing paved driveway, and then access across a planned future development area. To not impede the future development of that parcel, the access will consist of grading and utilizing the existing surface area.
- The net increase in the impervious area as a result of this project is 2500 square feet.

Neighborhood Comments

- Email from Ms. Caldwell
    - Ms. Caldwell's comments related to the design of the monopine and other types of stealth structures. We considered other stealth designs and the location of the tower does dictate the type of structure. Here, we believe a sign or bell tower would draw more attention to the space as opposed to a monopine. As previously discussed, a flagpole cannot be used due to the size of T-Mobile's antennas.
    - Ms. Caldwell's second comment relates to the location and as discussed, those locations to the Northeast are not available to us.
    - Ms. Caldwell notes the height of 45' is permitted. As will be discussed during the Public Hearing, the 50' height is the minimum necessary height to obtain their coverage objective.
- Email from Ms. Powell
    - Ms. Powell's comments related to the location of the pole which has been previously addressed. She also notes "radiation expelling tower" which appears to be a health concern. She finally notes the "lights and noise from equipment" would be unsettling. This proposed tower is not lit per the FAA and the noise from the equipment should be minimal at the property line.
- Email from Ms. Sairis
    - Ms. Sairis' comments relate to the location of the pole which have been previously addressed.
- Email from Mr. Stalla
    - Mr. Stalla's comments relate to the 50' height, which is the minimum necessary height for T-Mobile's coverage objective. Mr. Stalla also references the 25' setback from the perimeter boundary. We have met the setback referenced by Mr. Stalla.

I have attached the additional material referenced above relating to changes or additions to our application. Kindly review the additional material and let me know if we can provide additional information.

Sincerely,

Thomas Waniewski
Authorized Signatory

FIGURE 7

Search Area Summary

FIGURE 7

Capital Telecom Site: Airport Creek

Alternative Candidate Analysis

Capital Telecom submits this document to address alternative candidates it considered during its site selection process on behalf of T-Mobile.

Existing Structures in the Search Ring

Capital Telecom was able to confirm that there were no existing towers, or other objects of close to 60' in height within the proposed search ring, nor within a reasonable distance outside of the search ring.

Existing Structures outside of the Search Ring

Capital Telecom then located the nearest existing tower locations as shown on the attached map in a 1 mile radius:

This map illustrates a 1 mile radius from the proposed tower location, and as shown on the map, there are 4 identified tower locations located within 1 mile of the proposed tower location.

FIGURE 7

1) American Tower – 45' stealth cross – 38.81639, -104.73239
2) Bison Media – 177' guyed tower – 38.82639, -104.74164 (AM Broadcast Tower)
3) Bison Media – 177' guyed tower – 38.82583, -104.74219 (AM Broadcast Tower)
4) Unknown – 36' monopole – 38.82419, -104.71064

With the exception of the American Tower stealth cross, none of these existing towers have wireless carriers as tenants. The AM Broadcast towers will be difficult to collocate on and the height of any tower in the search ring or within a 1 mile radius is limited by the airport to the East.

Raw Land Properties Considered

Once Capital Telecom identified that there were no existing structures in the search ring, it turned its attention to (1) existing properties with sufficient land within the search area in order to meet the required setbacks and (2) properties that were either being used for commercial, industrial or agricultural uses rather than strictly residential use.

Capital Telecom's location at 575 Airport Creek Point was the only large enough commercial property to meet zoning setbacks, and the current use of a gas station and hotel placed the site in the appropriate zone.

Other property in the area was ruled out due to residential use, or lack of owner interest.

Conditional Use Criteria

Capital Telecom also considered the three criteria necessary for a Conditional Use in its search for a suitable property. The three criteria are:

1) Surrounding Neighborhood
    a. The neighborhood immediately adjacent to the proposed tower consists of higher density commercial development – fast food restaurants, hotels and offices. There are also residential areas to the south and west of the proposed location, but they also border the same higher density commercial development. Capital Telecom does not believe that the proposed location will injure the values and qualities of the surrounding neighborhood.
2) Intent of the Zoning Code
    a. Capital Telecom believes the proposed use on a commercial plot promotes the public health, safety and general welfare of the public. The proposed tower will fill a demonstrated coverage gap that will enable the public to reach emergency services though their mobile devices.

FIGURE 7

3) Comprehensive Plan
    a. Capital Telecom believes the proposed location is consistent with the Comprehensive Plan of the City. The location is in a higher density commercial area next to a busy highway. The structure is designed for collocation to limit future towers in the immediate vicinity. Finally the structure is of a stealth design intended to blend in with the uses in the area.

Conclusion

As noted above, there are no existing structures of sufficient height within the search ring for T-Mobile to locate its equipment, and existing towers within 1 mile are inadequate for T-Mobile's coverage needs. Capital Telecom has leased property from a willing landlord whose commercial property meets the required setbacks and will be developed in accordance with the City of Colorado Springs regulations. Finally, this proposed location meets the three criteria necessary for a Conditional Use in the City.

FIGURE 7

Tax Parcel Map of Surrounding Area

FIGURE 7

Capital Telecom
Airport Creek
Tax Parcel Map of Surrounding Area

FIGURE 7

Antenna Specifications

FIGURE 7

FFHH-65C-R3

8-port sector antenna, 4x 617-806 and 4x 1695–2360 MHz, 65° HPBW, 3x RET, 600 MHz-Ready Antenna Technology

Electrical Specifications

Frequency Band, MHz	617–698	698–806	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	15.4	15.8	17.9	18.4	18.8	19.6
Beamwidth, Horizontal, degrees	66	61	64	65	64	56
Beamwidth, Vertical, degrees	10.2	9.2	5.7	5.3	4.9	4.4
Beam Tilt, degrees	2–13	2–13	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	17	19	19	19	22
Front-to-Back Ratio at 180°, dB	33	31	38	41	40	38
Isolation, Cross Polarization, dB	28	28	28	28	28	28
Isolation, Inter-band, dB	28	28	28	28	28	28
VSWR | Return Loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	250	250	250	250	250	200
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

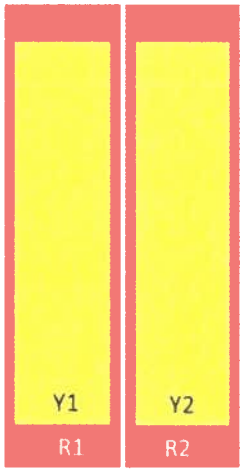
Frequency Band, MHz	617–698	698–806	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	15.2	15.5	17.5	18.0	18.4	19.2
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.4	±0.5	±0.5	±0.6
Gain by Beam Tilt, average, dBi	2 ° | 15.0 8 ° | 15.3 13 ° | 15.1	2 ° | 15.3 8 ° | 15.6 13 ° | 15.3	2 ° | 17.3 7 ° | 17.6 12 ° | 17.5	2 ° | 17.8 7 ° | 18.1 12 ° | 17.9	2 ° | 18.1 7 ° | 18.5 12 ° | 18.4	2 ° | 18.7 7 ° | 19.3 12 ° | 19.2
Beamwidth, Horizontal Tolerance, degrees	±3	±5.1	±5.9	±5.6	±5.9	±7.2
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.6	±0.4	±0.3	±0.4	±0.2
USLS, beampeak to 20° above beampeak, dB	17	14	15	15	16	17
Front-to-Back Total Power at 180° ± 30°, dB	23	21	30	31	31	30
CPR at Boresight, dB	21	20	18	18	19	19
CPR at Sector, dB	7	10	8	7	8	7

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, download the whitepaper Time to Raise the Bar on BSAs.

Array Layout

COMMSCOPE®

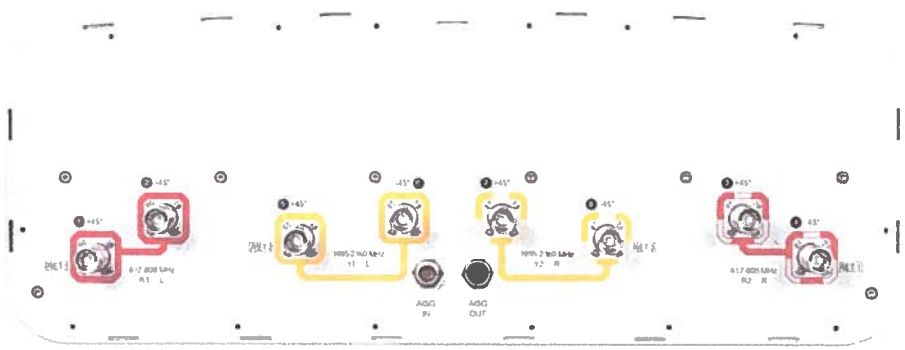
FIGURE 7



(Sizes of colored boxes are not true depictions of array sizes)

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	617-806	1-2	1	ANxxxxxxxxxxxxxxxx1
R2	617-806	3-4		
Y1	1695-2360	5-6	2	ANxxxxxxxxxxxxxxxx2
Y2	1695-2360	7-8	3	ANxxxxxxxxxxxxxxxx3

Port Configuration



General Specifications

Operating Frequency Band 1695 – 2360 MHz | 617 – 806 MHz

FIGURE 7

FFHH-65C-R3

Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage
Total Input Power, maximum	900 W @ 50 °C

Mechanical Specifications

RF Connector Quantity, total	8
RF Connector Quantity, low band	4
RF Connector Quantity, high band	4
RF Connector Interface	4.3-10 Female
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Radiator Material	Aluminum | Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	1055.0 N @ 150 km/h 237.2 lbf @ 150 km/h
Wind Loading, lateral	355.0 N @ 150 km/h 79.8 lbf @ 150 km/h
Wind Loading, maximum	1433.0 N @ 150 km/h 322.2 lbf @ 150 km/h
Wind Speed, maximum	241 km/h | 150 mph

Dimensions

Length	2437.0 mm | 95.9 in
Width	640.0 mm | 25.2 in
Depth	235.0 mm | 9.3 in
Net Weight, without mounting kit	57.9 kg | 127.6 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal RET	High band (2) | Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	10 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male

COMMSCOPE®

FIGURE 7

FFHH-65C-R3

Packed Dimensions

Length	2590.0 mm | 102.0 in
Width	752.0 mm | 29.6 in
Depth	380.0 mm | 15.0 in
Shipping Weight	84.4 kg | 186.1 lb

Regulatory Compliance/Certifications

Agency	**Classification**
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)

Included Products

BSAMNT-4 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

BSAMNT-M4 — Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

FIGURE 7

WT Group Letter with Photo Simulations

FIGURE 7

WT Group

Engineering • Design • Consulting

June 17, 2019

City of Colorado Springs, CO

RE: Photo rendering for Monopine
575 Airport Creek Point
Colorado Springs, CO 80916
Site Number: DN014716
W-T: T1701660

To Whom it May Concern,

The photo renderings (simulations) produced in July/August of 2018 depicted the incorrect height/size monopine and an inaccurate location in several of the views. Upon discussion with the project manager for this site, who was familiar with the overall design, field conditions and layout for this project, the renderings/sims were corrected and re-issued in November/December of 2018. This included replacing the monopine image with one more consistent with the height noted in the design and correcting for scale and distance based on the corrected location in some of the views.

I trust this meets with your needs and if you have any questions please do not hesitate to call.

Regards,

David Van Lieshout
Senior Project Manager

2675 Pratum Avenue
Hoffman Estates, IL 60192

224.293.6333
wtengineering.com

Engineering with Precision, Pace & Passion.

FIGURE 7

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing South

FIGURE 7

CAPITAL TELECOM

EXISTING

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing South

FIGURE 7

CAPITAL TELECOM

PROPOSED

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing Southwest

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing Southwest

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing North

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing North

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing Southeast

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artist's depiction of a future installation. The actual construction may vary slightly in size, layout, color and texture from this simulation.

Airport Creek - DN01471G

575 Airport Creek Point
Colorado Springs, CO 80916

Facing Southeast

FIGURE 7

CAPITAL TELECOM

W-T COMMUNICATION DESIGN GROUP, LLC
WIRELESS INFRASTRUCTURE

Disclaimer: This photo simulation is an artists depiction of a future installation. The actual construction may vary slightly in size, lay-out, color and texture from this simulation.