



Telecommunications Project Management

Submittal Cover Letter / Project Description and Justification / Environmental Information

Background and Project Description

The applicant, APC Towers, is a wireless infrastructure provider that specializes in building wireless communications structures, towers and related infrastructure. For this project, APC Towers proposes to build a wireless communications facility (cell site) consisting of a 60-foot tall "stealth" faux eucalyptus tree (antenna support structure) and an ancillary ground equipment enclosure. Upon completion of the project, APC Towers will lease out space at the communications facility to T-Mobile (a wireless carrier) in order for T-Mobile to install their antennas and technical equipment and operate the cell site as integral part of their wireless network.

The primary purpose of the project, in the near term, is to provide a cell site facility for T-Mobile. However, the facility will also be available for collocation by other wireless carriers in the future.

Project Justification and Consistency with City of Lake Elsinore Wireless Code

The project is consistent with the various policies, requirements and development standards of the City of Lake Elsinore's Wireless Communications Facilities Code (Chapter 17.186).

The antenna support structure is a "stealth facility" camouflaged to look like a eucalyptus tree. The subject property contains numerous mature, tall eucalyptus trees that will enable the faux eucalyptus antenna structure to blend in with the surrounding environment. The numerous tall trees onsite will also help to screen the faux eucalyptus from public views, resulting in a cell site that is minimally visible from public views.

The overall height of the faux tree antenna structure is 60 feet, which is consistent with the City Wireless Code, since the proposed facility is compatible with surrounding properties and land uses, and the proposed height is necessary to provide improved/adequate wireless service within the City.

A self-supporting (stand-alone) antenna structure is necessary because the proposed facility cannot be installed on an existing building or collocated on an existing wireless communications facility. The target search area for potential siting of the facility is a limited (small) geographic area. As such, there are no existing buildings or collocation opportunities within the target search area that would achieve the project objectives from a technical standpoint and a physical development (design) standpoint.

The proposed cell site is designed and located to be compatible with adjacent properties and land uses, and will not interfere with the quiet enjoyment of adjacent properties. The subject property is a large, sprawling, 10.8 acre parcel. The cell site will be located at the north corner of the property, at the rear of the property. This location will minimize or avoid any potential visual impacts to adjacent properties and the surrounding neighborhood. Also, the proposed equipment cabinets (within the equipment enclosure) contain small cooling fans that generate a small/negligible amount of noise. This will not cause noise impacts to any adjacent properties or the surrounding neighborhood.

The proposed cell site is an unmanned facility that operates on its own. It is not staffed by any people/employees. As such, after the cell site is built it generates negligible vehicle traffic. It's estimated that a T-Mobile employee will visit the cell site, in a service vehicle, once every other month for routine inspection and maintenance.

Site Selection

The subject property was selected for the cell site location because it's the best location, geographically, to achieve T-Mobile's objective of improving wireless service in the area in terms of radio signal propagation. Also, the subject property's existing development pattern, availability of vacant land, availability of utility connections and an access road, and existing tall trees make it an excellent location for installing a cell site. In addition, the property characteristics, in conjunction with the General Plan and zoning designations for the property, enable the proposed project to comply with the land use regulations of the City of Lake Elsinore's Wireless Communications Facilities Code.

Technical Justification

The wireless carrier, T-Mobile, needs a new cell site at the subject property in order to improve the wireless service for T-Mobile users in the subject neighborhood/area. T-Mobile users are currently experiencing insufficient/degraded system performance in the subject area due to congestion (over-capacity) of the existing cell sites that serve this area. The proposed cell site will improve the signal strength for both coverage and capacity, which will allow for improved/sufficient capacity for data transmission, faster data transmission speeds, and an overall improved level of wireless service for T-Mobile users in the subject area.

Based on T-Mobile's technical analysis of the system performance problems in the subject neighborhood, they have determined that the subject property is the best location, geographically, to locate a new cell site. Through technical analysis involving computer modeling of radio signal propagation, T-Mobile has determined that a new cell site at the subject property, at the proposed height, will solve the system performance problems described above.

Alternative Sites Considered

The property located at 32543 Corydon Road was also considered for the cell site project. An attempt was made to contact the property owner regarding the proposed project. However the property owner did not respond.

The property located at 32301 Corydon Road was also considered for the project. However, this property is further away from the target search area and therefore would not provide as good of wireless service improvements for T-Mobile as the subject property.

As noted further above, the target search area for potential siting of the cell site is a limited (small) geographic area. As such, there are no existing buildings or collocation opportunities within the target search area that would achieve the project objectives from a technical standpoint and a physical development (design) standpoint.

Potential for Future Collocation

Consistent with the City of Lake Elsinore's Wireless Communications Facilities Code, the proposed cell site has been designed to accommodate, and will be available for potential, future collocation by other wireless carriers.

Removal of Cell Site Facilities Upon Abandonment

To be consistent with the City of Lake Elsinore's Wireless Communications Facilities Code, the lease agreement or other agreement with the property owner will include a provision for removal of the cell site facilities upon abandonment, consistent with Section 17.186.040 (K) of the City's Wireless Code. The documentation for this will be submitted to the City as soon as it's available.

Environmental Information, Items 1 through 4 from the City Application Form

1. The subject property is a 10.8 acre parcel developed and used as a commercial recreational vehicle (RV) park and ancillary rental/storage space for RV's and similar type vehicles/trailers. There is one small stick-built building towards the front of the property that serves as the office for the RV Park.

The topography of the property is flat with a gradual slope downward from southeast to northwest. The ground elevation at the southeast end of the property, along Corydon Road, is approximately 12 feet higher than the northwest end of the property.

The northwest end of the property is in FEMA Flood Zone "X". A small portion of the property, the north corner at the northwest end, is in FEMA Flood Zone "AE". The proposed faux tree antenna structure and equipment enclosure are in Flood Zone "X". Special siting and design considerations have been incorporated into the project design for project compliance with the flood zone designations. Also, the faux tree and equipment enclosure are separated by approximately 144 feet for specific design considerations related to the flood zone designations.

There are numerous mature, tall trees on the property, and various ornamental type shrubs and landscape plantings. The mature, tall trees are primarily eucalyptus. There are no known or observed sensitive or protected biological, cultural, historic or scenic resources on the property.

2. The adjacent properties to the northeast are developed with large commercial buildings on large parcels. There are no biological, cultural, historic or scenic resources on these properties.

The adjacent properties to the southeast, across Corydon Road, consist of a rural residential single family home, and a large vacant/undeveloped parcel. The large, undeveloped/vacant parcel appears to contain native vegetation that may be environmentally sensitive/protected.

The adjacent properties to the southwest consist of Serenity Park (City of Lake Elsinore public park with recreation facilities) and undeveloped open space parcels. Serenity Park, with its expansive views to the north and northeast can be considered a scenic resource. The open space parcels contain native vegetation that is likely environmentally sensitive/protected.

The adjacent property to the northwest is a large, vacant/undeveloped parcel. This parcel appears to contain some native vegetation that may be environmentally sensitive/protected.

3. See item 2 above.
4. There are no other government/public agency permits or approvals required for the project. A Federal Aviation Administration (FAA) Determination of No Hazard to Air Navigation has been filed and received for the project. The FAA Determination is included in this submittal package.

The project site is not within a Criteria Cell pursuant to the Multiple Species Habitat Conservation Plan.

List of Submittal Items/Attachments:

- Submittal Cover Letter / Project Description & Justification / Environmental Information
- Planning Application Form
- Environmental Information Form
- Hazardous Waste & Public Well Site Information Form
- Signed Cost Recovery Agreement
- FAA Determination of No Hazard to Air Navigation
- Coverage Plots / Technical Justification
- Photo-simulations- 4 Views
- Photos of Subject Property & Surrounding Properties- 10 Photos
- Title Report & Supporting (recorded) Documents
- Project Plans- 10 sets of 24x36 prints & 10 sets of 11x17 prints
- Check for Application Fees for Conditional Use Permit & Design Review
- CD- Digital Copy of All Application Items



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2018-AWP-18010-OE

Issued Date: 02/01/2019

Paul Alvarez
Paul Alvarez
8601 Six Forks Road
suite 250
RALEIGH, NC 27615

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Antenna Tower CA-1679 Airpark Lake Elsinore
Location:	Lake Elsinore, CA
Latitude:	33-37-28.24N NAD 83
Longitude:	117-18-10.90W
Heights:	1266 feet site elevation (SE) 65 feet above ground level (AGL) 1331 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 2.

This determination expires on 08/01/2020 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (424) 405-7642, or ladonna.james@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-AWP-18010-OE.

Signature Control No: 392108231-395179108

(DNE)

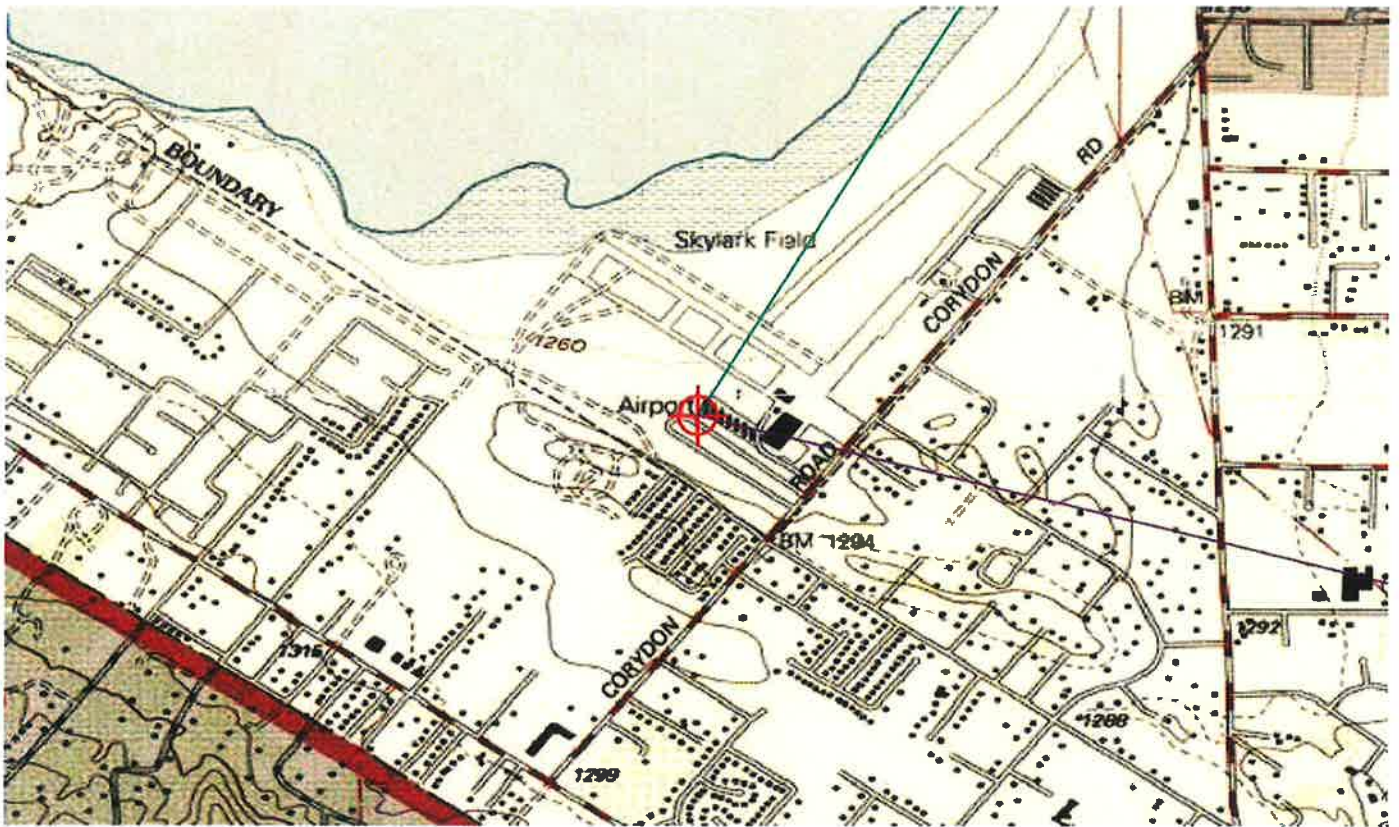
LaDonna James
Technician

Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2018-AWP-1801-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W



IE25579D – Proposal

Objective

To improve the coverage in the area with a poor signal, degrading performance due to cell site congestion, and subscribers experiencing very slow data speed. With the help of a new cell site near the intersection of Corydon St & Cathy Ln it will provide an improved signal coverage, faster data speed, and better experience for our customers in the area.

Proposed Site

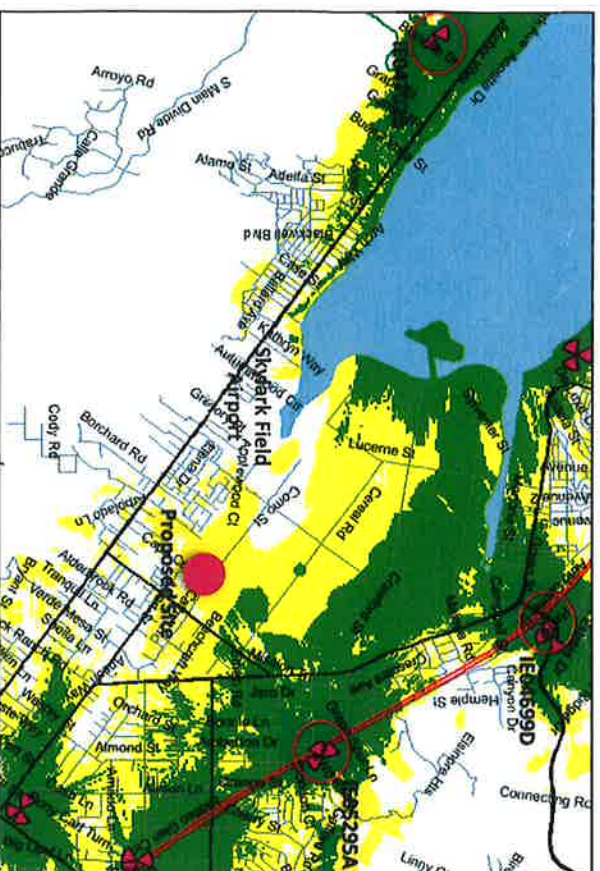
Ring ID	IE25579D
Candidate Name	Casa De Mobile RV Park
Latitude	33.624828°
Longitude	-117.303508°
Antenna RAD Center	52 ft.
Solution Type	Tower

Congestion

Congested Sectors	IE05295A3	IE04702B2	IE04699D2
Number of Users	160	160	160
Target Data Speed	4 Mbps	4 Mbps	4 Mbps
Projected Number of Users by Dec 2020	474	319	267
Projected Data Speed by Dec 2020	0.01 Mbps	1.4 Mbps	1.8 Mbps
911 Call count	183 Calls/Year	104 Calls/Year	57 Calls/Year

IE25579D – Proposal

Existing On-Air Coverage



- Legend:**
- 97dBm – In Building Residential
 - 114dBm – In Vehicle
 - 120dBm – Unreliable

User Connection



- Legend:**
- 10,240 and up connections
 - 2,560 connections
 - 320 connections
 - 80 connections
 - less than 80 connections