

July 10, 2019

Via Electronic and U.S. Mail

Melanie A. Bachman, Esq.
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**Re: Installation of a Temporary Cell of Wheels (“COW”) at Durham Fairgrounds,
24 Town House Road, Durham, Connecticut**

Dear Ms. Bachman:

Pursuant to the provisions of the Regulations of Connecticut State Agencies (“R.C.S.A.”) § 16-50j-72(2), Cellco Partnership d/b/a Verizon Wireless (“Cellco”) seeks Siting Council authorization to install a truck-mounted telecommunications tower and associated radio equipment (a/k/a “Cell on Wheels” or “COW”) for use prior to and during this year’s Durham Fair scheduled for September 26-29, 2019. Included in Attachment 1, is a letter from the President of the Durham Agricultural Fair Association authorizing the filing of this notice.

The COW that Cellco intends to install at the Durham Fair is a trailer-mounted wireless facility with a retractable 30-foot mast. (See Attachment 2 Exhibits). Cellco will attach two (2) panel antennas to the top of the mast at a centerline height of approximately 33 feet above ground level. The temporary facility will provide wireless services in Cellco’s 1900 MHz and AWS (2100 MHz) frequency ranges.

The proposed temporary telecommunications facility satisfies the criteria set forth in R.C.S.A. Section 16-50j-72(d), as a facility that will provide temporary wireless service for an event of State-wide significance. This temporary facility will provide additional network capacity to accommodate increased wireless voice and data needs specifically associated with the event. Cellco expects that the COW will be brought to the site on or about September 5, 2019, and will be removed on or before October 5, 2019.

19561824-v1

Robinson+Cole

Melanie A. Bachman, Esq.
July 10, 2019
Page 2

The operation of the antennas on the COW will not result in a total radio frequency (RF) emissions that exceed the Federal Communications Commission (FCC) adopted safety standard. The “worst-case” calculation of RF emissions for all antennas mounted at 33- feet above ground level at this temporary facility would be below the FCC standard. (See Far Field Approximation tables included in Attachment 3).

Pursuant to R.C.S.A. § 16-50j-73, notice of this filing has been sent to Durham Agricultural Fair Association, the owner of the Property, Durham First Selectman Laura L. Francis and Durham Interim Zoning Enforcement Officer, Jerry Russ.

Please contact me if you have any questions.

Sincerely,



Kenneth C. Baldwin

Attachments

Copy to:

Durham Agricultural Fair Association
Laura L. Francis, First Selectman
Jerry Russ, Interim Zoning Enforcement Officer
Aleksy Tyurin

ATTACHMENT 1

July 2, 2019

Verizon Wireless
Alex Tyurin
Real Estate Consultant
20 Alexander Dr 2nd Fl
Wallingford, CT 06492

Re: Proposed Temporary Telecommunication Facility at the Durham Fairgrounds, 24
Town House Rd, Durham, CT 06422

Dear Mr. Tyurin,

I, Daniel Miramant, as President of the Durham Agricultural Fair Association, hereby authorize Cellco Partnership d/b/a Verizon Wireless and /or its agents to apply for and obtain all necessary state or local permits and approvals for the proposed temporary wireless telecommunication facility at the property. Please contact me at 860-559-2421 should you have any questions

Best Regards,

A handwritten signature in black ink, appearing to read "Daniel Miramant". The signature is fluid and cursive, with the first name being more prominent.

Daniel Miramant
President
Durham Agricultural Fair Association





ATTACHMENT 2

LEASE EXHIBIT

PREPARED FOR: CELCO PARTNERSHIP D.B.A.



HUDSON
 Design Group LLC
 45 BEECHWOOD DRIVE TEL: (978) 557-5353
 N. ANDOVER, MA 01845 FAX: (978) 336-5386

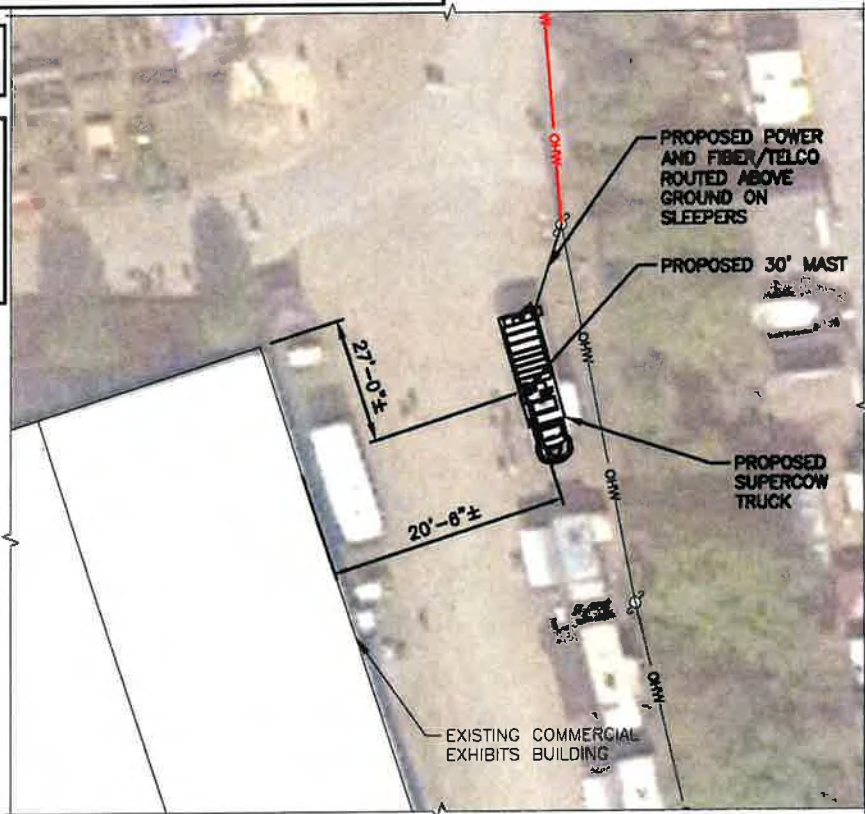
LEGEND	
	CELLULAR COMMUNICATIONS ON WHEELS
	OVERHEAD WIRE
	PROPERTY LINE
	UTILITY POLE



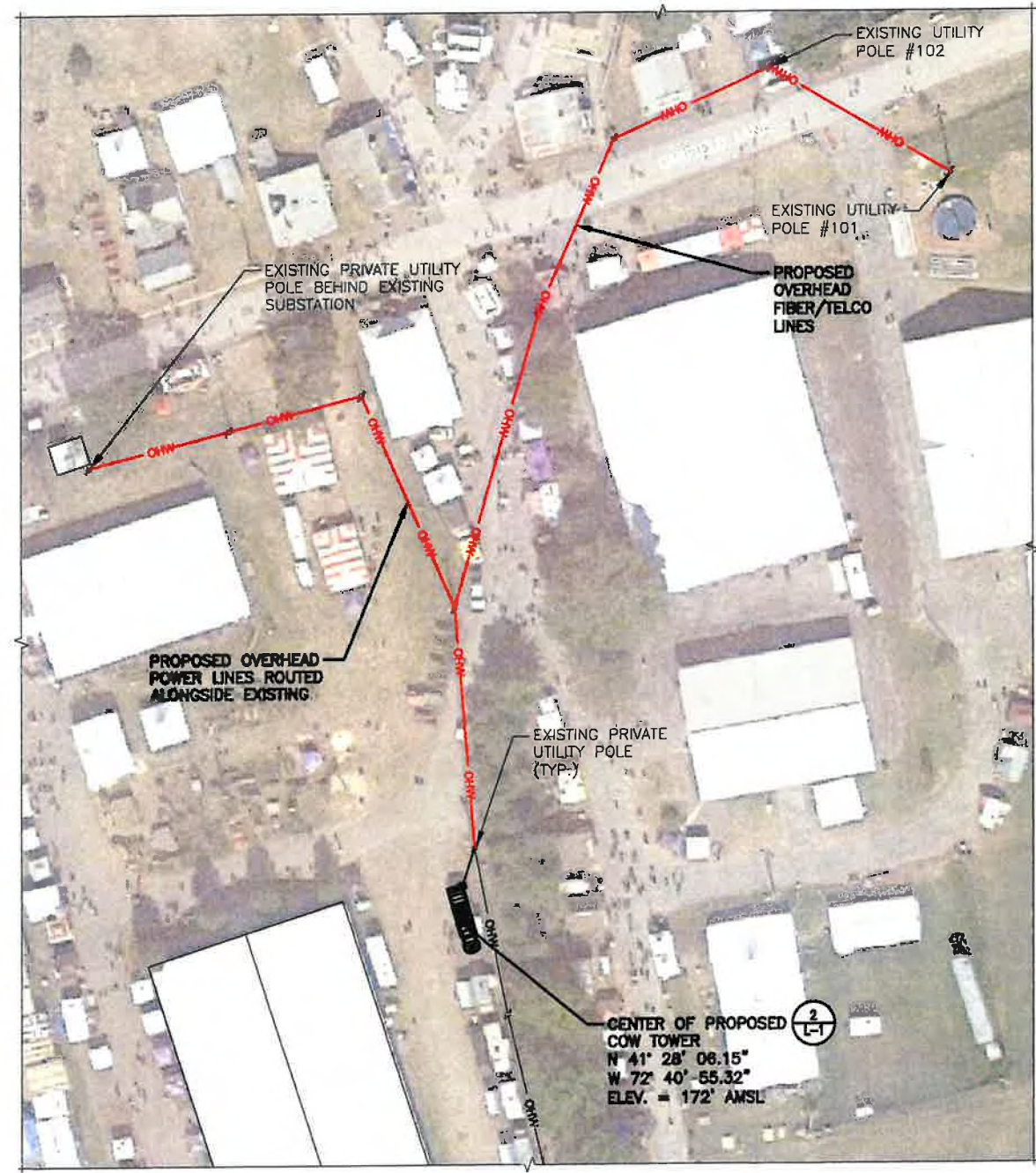
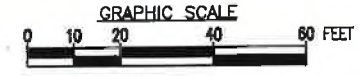
VICINITY MAP
 SCALE: N.T.S.

APPROXIMATE COW TOWER COORDINATES: LAT: N41° 28' 06.15" LONG: W72° 40' 55.32"

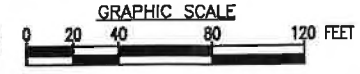
LEASE EXHIBIT
 THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.



PARTIAL SITE PLAN
 22x34 SCALE: 1"=20'-0"
 11x17 SCALE: 1"=40'-0"



SITE PLAN
 22x34 SCALE: 1"=40'-0"
 11x17 SCALE: 1"=80'-0"



CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	07/16/18	ISSUED FOR REVIEW	JS

SITE NAME:
DURHAM FAIRGROUNDS COW
 SITE ADDRESS:
 24 TOWN HOUSE ROAD
 DURHAM, CT 06422

SHEET TITLE:
PARTIAL SITE PLAN

SHEET NUMBER:
L-1

LEASE EXHIBIT

PREPARED FOR: CELCO PARTNERSHIP D.B.A.

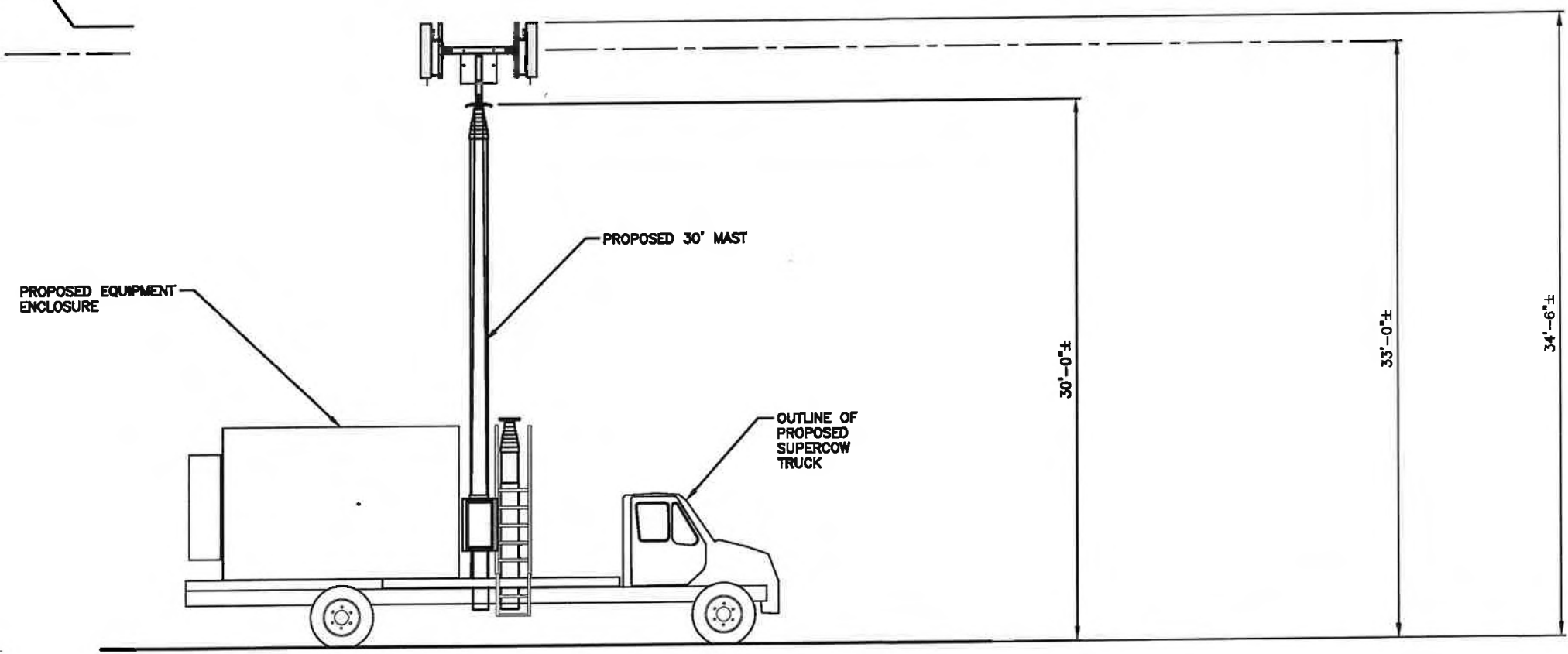


45 BEECHWOOD DRIVE TEL: (978) 557-5553
N. ANDOVER, MA 01845 FAX: (978) 336-5386

● C. OF PROPOSED ANTENNAS
ELEV. = 34'-6"± (AGL)
ELEV. = 206'-6"± (AMSL)

● C. OF PROPOSED ANTENNAS
ELEV. = 33'-0"± (AGL)
ELEV. = 205'-0"± (AMSL)

● EXISTING GRADE
ELEV. = 0'-0"± (AGL)
ELEV. = 172'-0"± (AMSL)



CHECKED BY: DJR

APPROVED BY: DJC

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	07/16/18	ISSUED FOR REVIEW	JS

SITE NAME:
DURHAM FAIRGROUNDS COW

SITE ADDRESS:
24 TOWN HOUSE ROAD
DURHAM, CT 06422

SHEET TITLE
ELEVATION

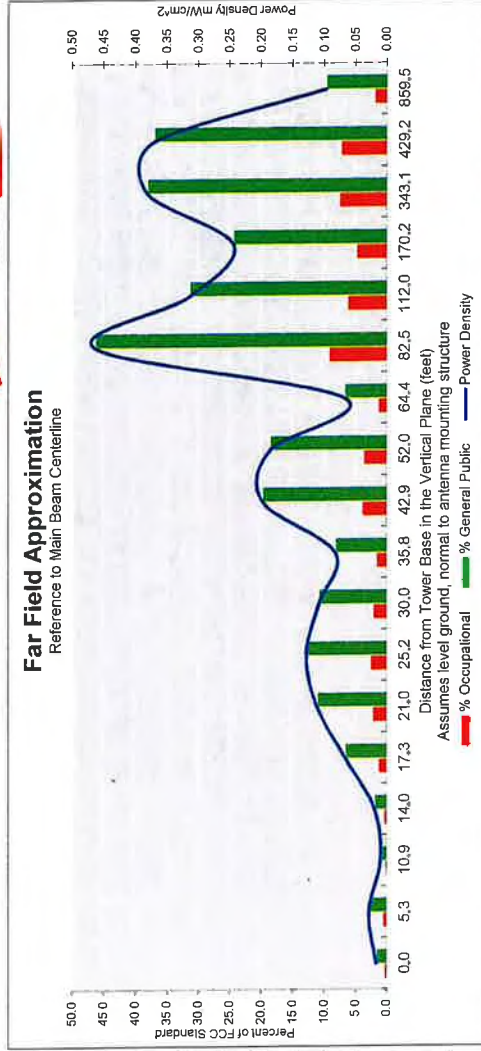
SHEET NUMBER
L-2

ATTACHMENT 3

**Estimated Radiated Emission
Single Emitter Far Field Model
Dipole/Wire/Yagi Antenna Types**



Location:	DURHAM FAIR COW CT
Site #:	2-0399
Date:	07/05/19
Name:	Ziad Chelban
File Name:	
Operating Freq. (MHz):	2145.0
Antenna Height (ft):	33.0
Antenna Gain (dBi):	21.0
Antenna Size (in.):	36.0
Downtilt (degrees):	0.0
Feedline Loss (dB):	0.0
ERP (W):	2596.0
No. of Channels:	1



Calc Angle	90.0	80.0	70.0	65.0	60.0	55.0	50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0	5.0	4.0	2.0
Solve for r, dx to antenna	30.0	30.5	31.9	33.1	34.7	36.6	39.2	42.4	46.7	52.3	60.0	71.0	87.8	116.0	172.8	344.4	430.3	860.0
Distance from Antenna Structure Base in Horizontal plane	0.0	5.3	10.9	14.0	17.3	21.0	25.2	30.0	35.8	42.9	52.0	64.4	82.5	112.0	170.2	343.1	429.2	859.5
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	24.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm²)	0.02	0.03	0.01	0.02	0.07	0.11	0.13	0.11	0.08	0.20	0.19	0.07	0.46	0.31	0.24	0.38	0.37	0.10
Percent of Occupational Standard	0.3	0.6	0.2	0.4	1.3	2.2	2.6	2.2	1.7	4.0	3.7	1.3	9.3	6.3	4.9	7.6	7.4	1.9
Percent of General Population Standard	1.7	2.8	1.0	1.9	6.6	11.2	12.9	10.9	8.3	19.8	18.6	6.7	46.3	31.4	24.4	38.1	37.0	9.7

Antenna Type: XAP-TB-322

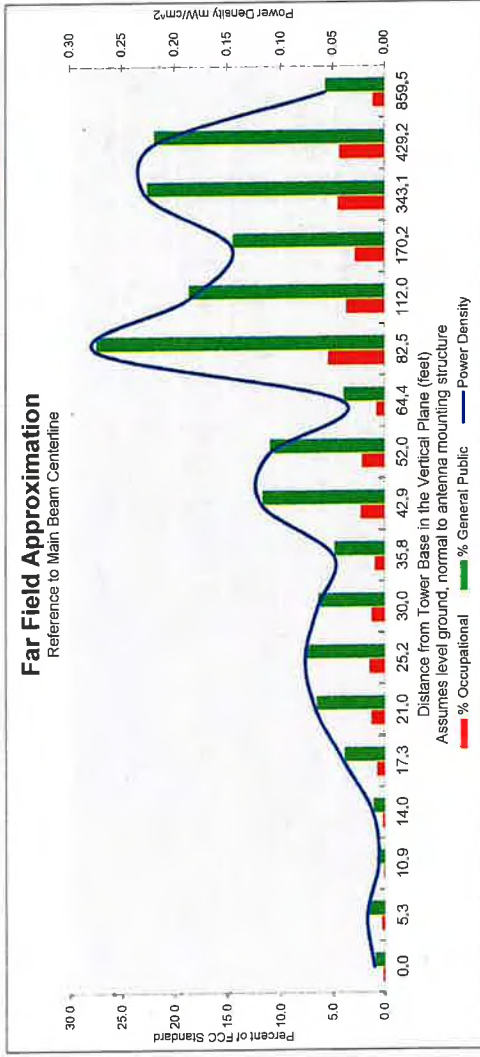
Max%: 46.34%

Far Field Approximation
with downtilt variation

**Estimated Radiated Emission
Single Emitter Far Field Model
Dipole/Wire/Yagi Antenna Types**



Location:	DURHAM FAIR COW CT
Site #:	2-0399
Date:	07/05/19
Name:	Ziad Cheibani
File Name:	
Operating Freq. (MHz):	1970.0
Antenna Height (ft):	33.0
Antenna Gain (dBi):	20.8
Antenna Size (in.):	36.0
Downtilt (degrees):	0.0
Feedline Loss (dB):	0.0
ERP (W):	1615.0
No. of Channels:	1



Calc Angle	90.0	80.0	70.0	65.0	60.0	55.0	50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0	5.0	4.0	2.0
Solve for r, dk to antenna	30.0	30.5	31.9	33.1	34.7	36.6	39.2	42.4	46.7	52.3	60.0	71.0	87.8	116.0	172.8	344.4	430.3	860.0
Distance from Antenna Structure Base in Horizontal plane	0.0	5.3	10.9	14.0	17.3	21.0	25.2	30.0	35.8	42.9	52.0	64.4	82.5	112.0	170.2	343.1	429.2	859.5
Angle from Main Beam (reference to horizontal plane)	90	80	70	65	60	55	50	45	40	35	30	25	20	15	10	5	4	2
dB down from centerline (referenced to centerline)	36.76	34.35	38.52	35.34	29.54	26.8	25.59	25.63	25.99	21.21	20.29	23.24	13.03	12.3	9.92	2	0.2	0
Reflection Coefficient (1 to 4, 2.56 typical)	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
Power Density (mW/cm²)	0.01	0.02	0.01	0.01	0.04	0.07	0.08	0.06	0.05	0.12	0.11	0.04	0.28	0.19	0.15	0.23	0.22	0.06
Percent of Occupational Standard	0.2	0.3	0.1	0.2	0.8	1.3	1.5	1.3	1.0	2.4	2.2	0.8	5.5	3.7	2.9	4.5	4.4	1.2
Percent of General Population Standard	1.0	1.7	0.6	1.1	3.9	6.6	7.7	6.5	4.9	11.8	11.1	4.0	27.5	18.7	14.5	22.7	22.0	5.8

Antenna Type: XAP-TB-322
Max%: 27.53%