



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

July 15, 2011

Steven L. Levine  
Real Estate Consultant  
New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, CT 06067-3900

RE: **EM-CING-038-110628** - New Cingular Wireless PCS, LLC notice of intent to install a temporary cellular telecommunications facility at the Durham Agricultural Fair, Durham, Connecticut.

Dear Mr. Levine:

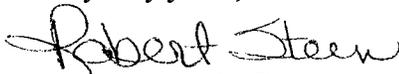
The Connecticut Siting Council (Council) hereby acknowledges your notice to construct a temporary telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed facility is to be developed as specified here and in your notice dated June 23, 2011. The facility is in compliance with the exception criteria in Section 16-50j-72 (d) of the Regulations of Connecticut State Agencies for temporary cellular service for events of statewide significance. This temporary facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies to be used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this temporary facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

  
Robert Stein *UR*  
Chairman

RS/CDM/laf

c: The Honorable Laura L. Francis, First Selectman, Town of Durham  
Geoffrey Colegrove, Town Planner, Town of Durham

EM-CING-038-110628



Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, Connecticut 06067-3900  
Phone: (860) 513-7636  
Fax: (860) 513-7190

ORIGINAL

Steven L. Levine  
Real Estate Consultant

June 23, 2011

RECEIVED  
JUN 28 2011

CONNECTICUT  
SITING COUNCIL

Honorable Robert Stein, Chairman,  
and Members of the Council  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

**Re: Proposed New Cingular Wireless PCS, LLC Temporary Cellular Communications Site  
at the Durham Agricultural Fair, Durham, CT**

Dear Chairman Stein and Members of the Council:

New Cingular Wireless PCS, LLC ("AT&T") intends to install a temporary cellular communications facility for use during the 2011 Durham Agricultural Fair. Please accept this letter as notification to the Connecticut Siting Council ("Council"), pursuant to R.C.S.A Section 16-50j-73, of construction that constitutes an exempt modification under R.C.S.A Section 16-50j-72(d). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter is being sent to the First Selectman of Durham.

The proposed temporary cell site meets the criteria set forth in R.C.S.A Section 16-50j-72(d) for temporary cellular service for events of statewide significance. This site is necessary to provide additional system capacity to accommodate increased communication needs during the Fair.

As in 2010, moreover, AT&T plans to operate a Wi-Fi network during the Fair to serve vendors and fairgoers needing Internet access.

The Durham Agricultural Fair will be held at the Durham Fairgrounds on September 22- 25, 2011.

**Proposed Temporary Facility**

AT&T operates under licenses issued by the Federal Communications Commission ("FCC") to provide cellular and PCS mobile telephone service in Middlesex County, which includes the area to be served by AT&T's proposed temporary installation.

The temporary cell site will be located off Town House Road in Durham on property of the Durham Agricultural Fair Association. (See the attached location map.)

The site will begin operations on or about September 15 to be available during set-up of the Fair, and it will be removed no more than two days after conclusion of the event.

AT&T's temporary cell site will consist of radio equipment installed in a vehicle referred to as a "Cell on Wheels" ("COW"). The COW is 17 feet in length, 8 feet wide, and 12-½ feet in height. A mast will be extended upward from the COW to a height of approximately 48 feet above ground level ("AGL") to support the AT&T antennas as shown on the attached site plan. Two antennas approximately 4 feet in length will be mounted on a boom at the top of the mast, for a total height of 52 feet AGL and an antenna centerline of 50 feet. Electric power will be provided by the Agricultural Fair Association.

**Power Density Calculations.**

AT&T's temporary cell site will not result in a total radio frequency electromagnetic radiation power density, measured at ground level in this location, at or above State or Federal standards. The following table shows the power density at the site from the proposed temporary cell and Wi-Fi transmissions from the COW.

| Company      | Centerline Height (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density <sup>†</sup> (mW/cm <sup>2</sup> ) | Standard Limits (mW/cm <sup>2</sup> ) | Percent of Limit |
|--------------|--------------------------|-----------------|--------------------|---------------------------|--|---------------------------------------|------------------|
| AT&T GSM     | 50                       | 880 - 894       | 4                  | 296                       | 0.1703   | 0.5867                                | 29.03            |
| AT&T GSM     | 50                       | 1900 Band       | 2                  | 427                       | 0.1228   | 1.0000                                | 12.28            |
| AT&T UMIS    | 50                       | 880 - 894       | 1                  | 500                       | 0.0719   | 0.5867                                | 12.26            |
| AT&T UMIS    | 50                       | 1900 Band       | 1                  | 500                       | 0.0719   | 1.0000                                | 7.19             |
| AT&T Wi-Fi   | 50                       | 5800            | 3                  | 1.6                       | 0.0007   | 1.0000                                | 0.07             |
| <b>Total</b> |                          |                 |                    |                           |  |                                       | <b>60.83%</b>    |

<sup>†</sup> Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 as described in FCC OET Bulletin No. 65.

This "worst-case" power density calculation shows that AT&T's temporary transmissions from the COW will result in a power density corresponding to approximately 61 % of the ANSI/IEEE standard for uncontrolled environments. Therefore, total worst-case density levels from temporary cellular operations at this location would be within the applicable standard limits.

Additionally, AT&T proposes to install a Wi-Fi network consisting of 11 temporary Wi-Fi repeater stations distributed throughout the fairgrounds to serve vendors and other Internet users. (See attachments for repeater locations and a typical Wi-Fi station photograph.) The COW will communicate with the repeaters as described in the prior table over a low-power 5800 MHz link. The repeaters, in turn, will communicate with user devices over even lower-power 2400 MHz transmissions, each repeater station creating its own local RF mini-environment. As demonstrated below, the repeater-to-user RF emissions will be negligible.

| Company    | Centerline Height (feet) | Frequency (MHz) | Number of Channels | Power Per Channel (Watts) | Power Density <sup>†</sup> (mW/cm <sup>2</sup> ) | Standard Limits (mW/cm <sup>2</sup> ) | Percent of Limit |
|------------|--------------------------|-----------------|--------------------|---------------------------|--|---------------------------------------|------------------|
| AT&T Wi-Fi | 10                       | 2400            | 3                  | 1                         | 0.0108   | 1.0000                                | 1.08             |

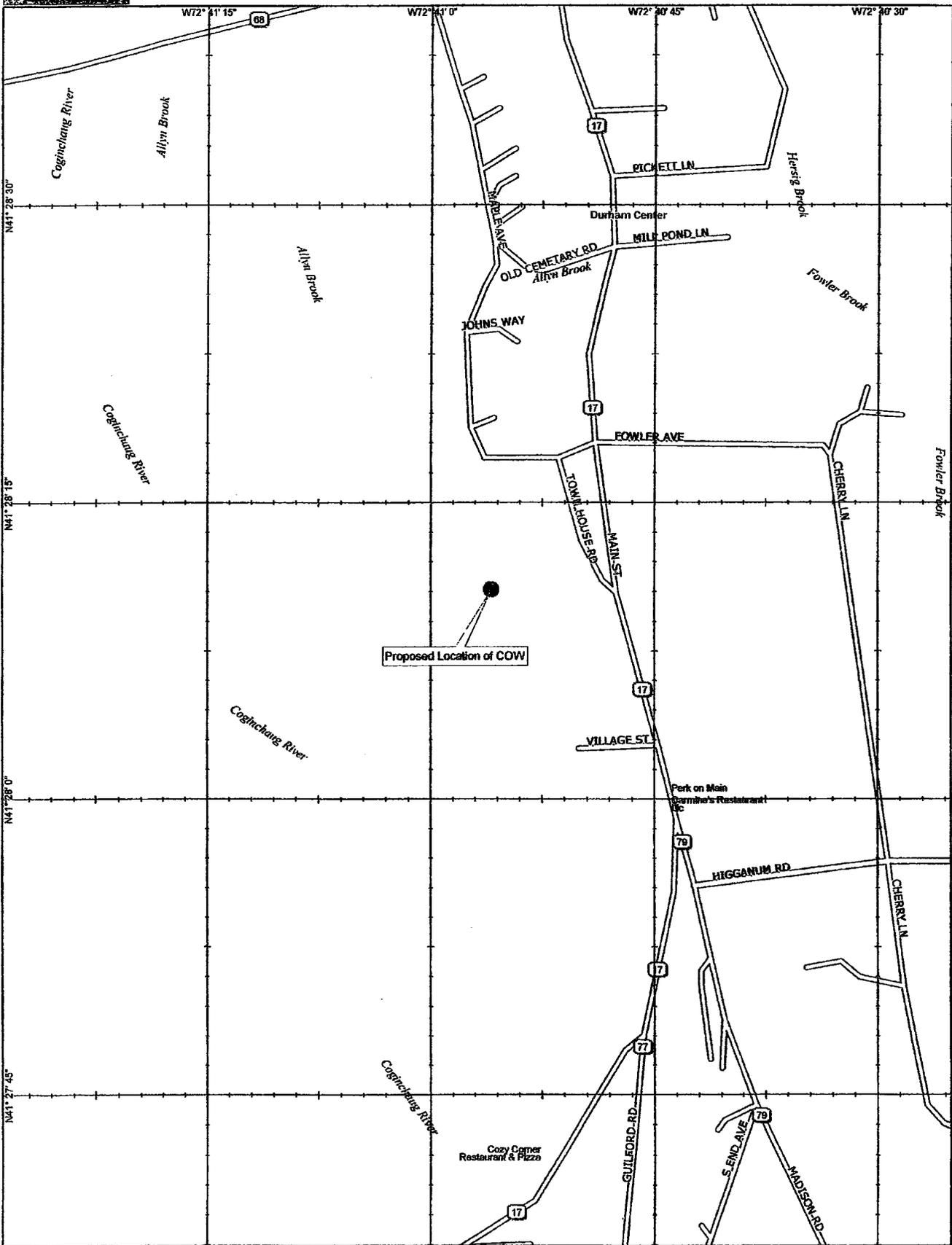
For the reasons above, we respectfully request that the Council approve AT&T's proposed temporary cell site and Wi-Fi network for use during the Durham Agricultural Fair pursuant to R.C.S.A. Section 16-50j-72(d).

Respectfully yours,



Steven Levine  
Real Estate Consultant

cc: Honorable Laura L. Francis, 1<sup>st</sup> Selectman, Town of Durham  
Michele G. Briggs, Manager of Real Estate



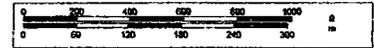
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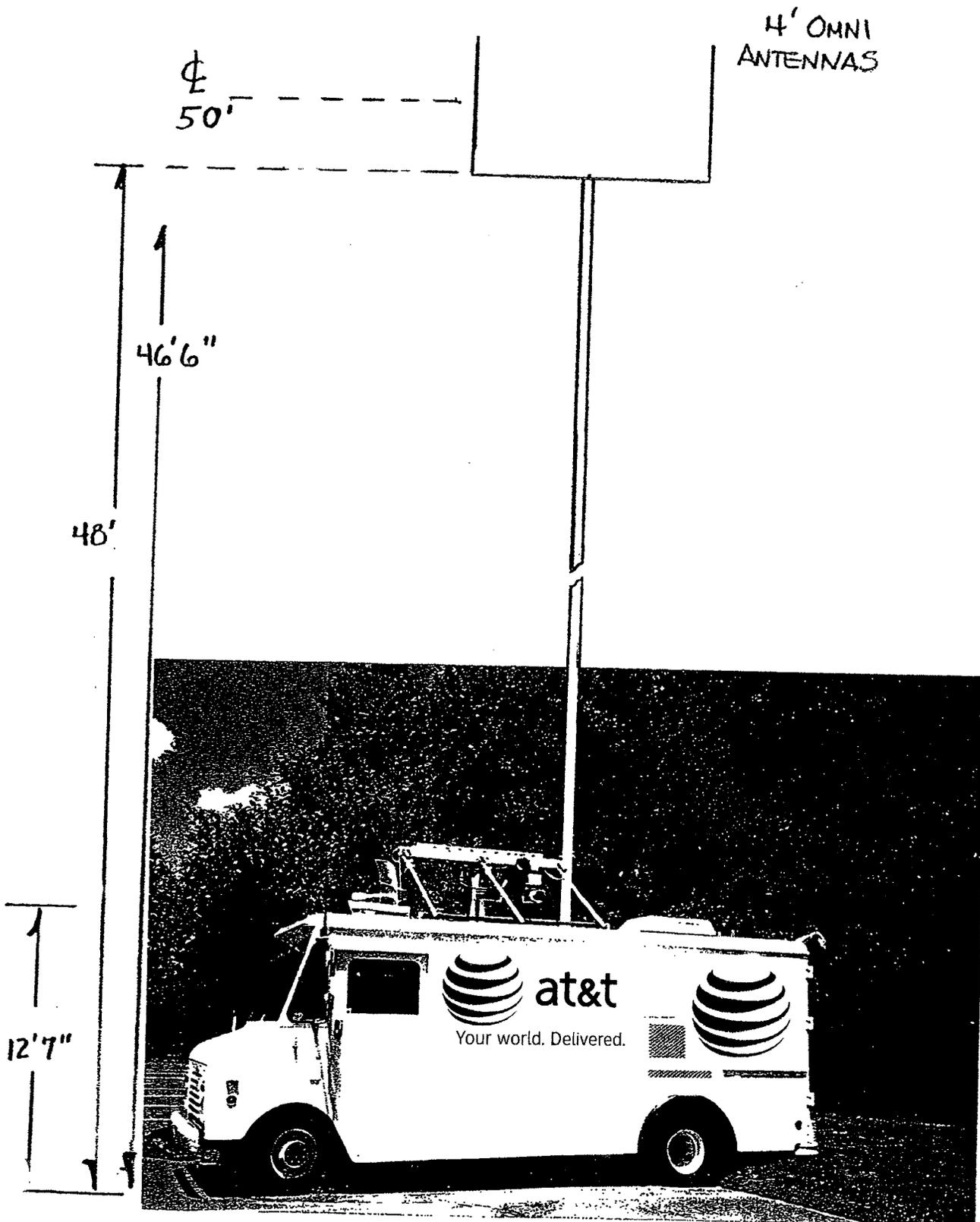
www.delorme.com



Scale 1 : 8,000



Data Zoom 14-6



AT&T "COW" (Cell On Wheels)



68 Main St, Durham, CT 06422

COW Location

Cluster 2

Cluster 1

Cluster 5

Cluster 4

Cluster 7

Cluster 10

Cluster 3 PTP only

Cluster 8

Cluster 9

Cluster 11

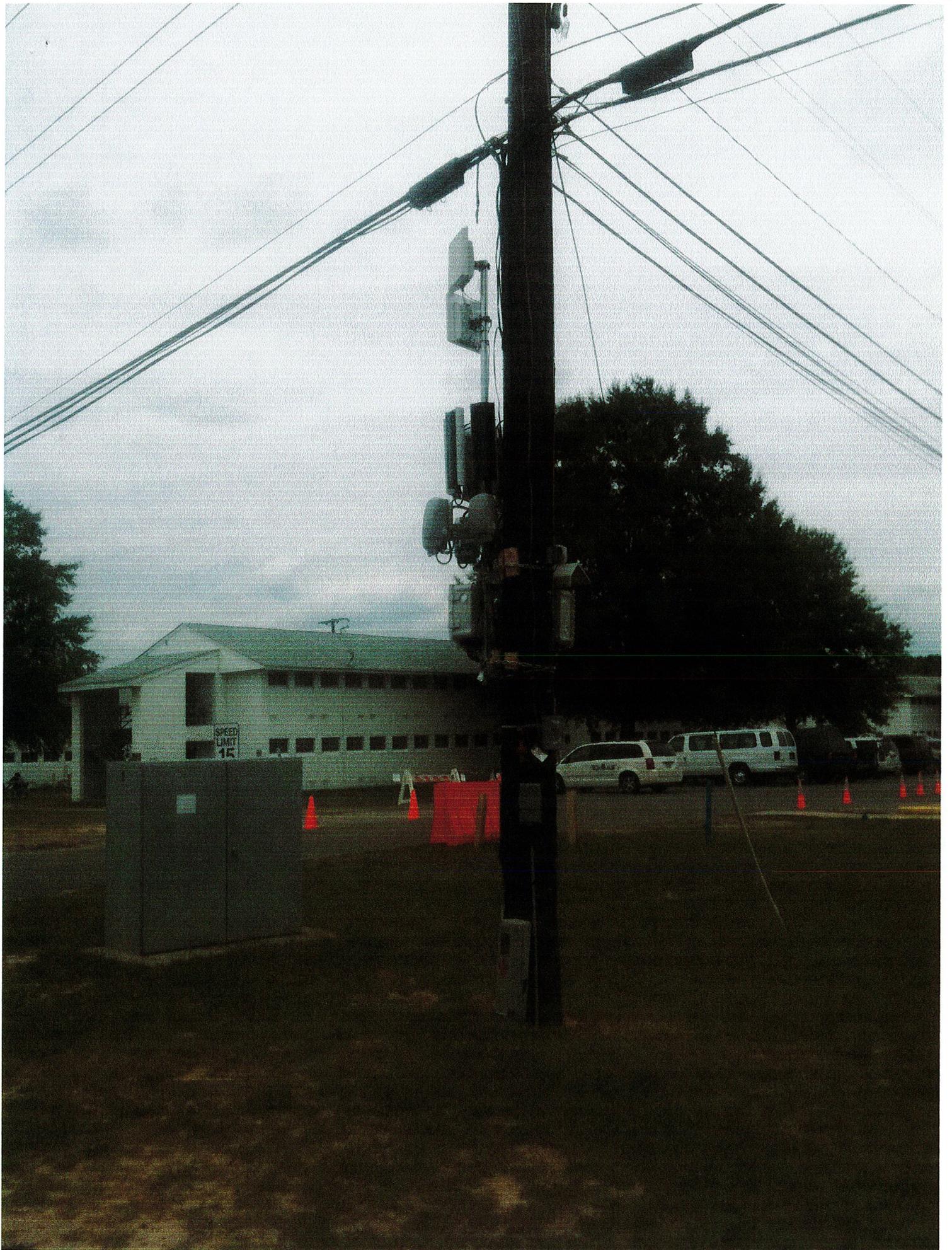
Cluster 6

© 2010 Google  
Image U.S. Geological Survey

41°28'09.58"N 72°40'48.96"W elev. 233 ft

GO  
© 2010

Eye



SPEED  
LIMIT  
15



New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, Connecticut 06067-3900  
Phone: (860) 513-7636  
Fax: (860) 513-7190

**Steven L. Levine**  
Real Estate Consultant

June 23, 2011

Honorable Laura L. Francis  
1<sup>st</sup> Selectman, Town of Durham  
Town Hall, 30 Town House Rd.  
Durham, Connecticut 06422

**Re: Proposed New Cingular Wireless PCS, LLC Temporary Cellular Communications Site  
at the 2011 Durham Agricultural Fair, Durham, CT**

Dear Ms. Francis:

New Cingular Wireless PCS, LLC ("AT&T") intends to install a temporary cellular and Wi-Fi communications facility for use during the upcoming 2011 Durham Agricultural Fair.

A Notice of Exempt Modification has been filed with the Connecticut Siting Council as required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73. Please accept this letter as notification to the Town of Durham under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(d).

The attached letter fully sets forth the AT&T proposal. However, if you have any questions or require any further information on the plans for the site or the Siting Council's procedures, please contact the undersigned or Ms. Linda Roberts, Executive Director of the Connecticut Siting Council, at (860) 827-2935.

Sincerely,

Steven Levine  
Real Estate Consultant

Enclosure