

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION BY TOWER HOLDINGS, LLC FOR A
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY
AND PUBLIC NEED FOR THE CONSTRUCTION
MAINTENANCE AND OPERATION OF A WIRELESS
TELECOMMUNICATIONS FACILITY AT
199 BRICKYARD ROAD, FARMINGTON,
CONNECTICUT

DOCKET NO. 454

JANUARY 7, 2015

INTERVENOR NEW CINGULAR WIRELESS PCS, LLC (AT&T) RESPONSES
TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES SET I

- Q1. What FCC licensed frequencies does AT&T utilize in Hartford County?
- A1. *AT&T is licensed by the FCC to provide wireless communications services throughout the Hartford County utilizing the following frequency blocks:*
- WPWV366 C Block*
 - WQIZ617 E Block*
 - WQJU451 B Block*
 - KNKA239 B Block*
 - KNLG441 D Block*
 - KNLG442 E Block*
 - WPSL626 A Block*
 - WPTF536 C Block*
 - KNLB204 B Block*
 - KNLB297 D Block*
 - KNB312 A Block*
 - WPQL636 C Block*
- Q2. When was the search ring for this proposed facility issued? Please submit a drawing depicting the search ring area.
- A2. *The search ring was issued in January 2013. Included in Attachment 1 is a map of the search ring area.*
- Q3. Which frequencies would AT&T install at the proposed site, e.g. 700 MHz, 850 MHz, 1900 MHz, etc? Would antennas serving all of these frequencies be installed initially, or would some be installed at a later date?

- A3. *All three bands will be on-air when the site enters service.*
- Q4. Are all frequencies used to transmit voice and data services? Are all frequencies LTE capable? Please explain.
- A4. *Yes, all frequencies will be used to transmit voice and data. With respect to current implementation, AT&T will deploy LTE on the 700 and 1900 MHz frequencies, but not on the 850 MHz frequencies. The 850 MHz frequencies will be used to provide service to the "legacy" customer equipment that uses GSM (2G and 2.5 G) or UMTS (3G) technology. The broadband nature of the UMTS and LTE air interface precludes them from sharing the 850 MHz spectrum, so there will be a period of transition as the customer equipment base is eventually migrated to LTE.*
- Q5. What is the service level threshold for which AT&T designs its system? Is the threshold the same for each frequency?
- A5. *For 700 MHz LTE, the design criteria are -83 and -93 dBm. For PCS LTE, the design criteria are -86 and -96 dBm. For 850 MHz, the coverage criteria are -74 and -82 dBm.*
- Q6. What is the existing signal strength within the area AT&T is seeking to cover from this site?
- A6. *For 700 MHz, the signal strength in the gap is between -93 dBm and -120 dBm. For PCS LTE, that frequency will be deployed in the near future on existing sites. Signal strength in the gap that will be left by deploying PCS LTE on the existing sites is between -96 dBm and -120 dBm.*
- Q7. Identify AT&T's adjacent sites with which the proposed facility would hand off service. Include addresses and a brief description of these sites.
- A7. *The neighboring sites that the proposed site would hand-off signal are shown on the table below:*

Site No.	Address	Town	Latitude	Longitude	Antenna Centerline (feet)	Structure Type	Ground Elevation (feet)
CT5290	24 Ridgewood Rd	Avon	41.78379	-72.86909	56	Water tank	436
CT5289	10 Redwood Ln	Avon	41.77220	-72.88000	102	Monopole	434
CT1061	82 Lovely St	Unionville	41.76140	-72.88750	102	Monopole	270
CT5404	319-321 New Britain Ave	Unionville	41.74979	-72.87270	148	Monopole	194
CT1119	1 Westerberg Dr	Farmington	41.73050	-72.83550	139	Flagpole	376
CT2580	199 Town Farm Rd	Farmington	41.75778	-72.82993	100	Monopine	206

- Q8. Would the proposed site be needed for coverage, capacity, or both? Explain.
- A8. *Both. 700 and 850 MHz will be used primarily for coverage, 1900 MHz will provide extra capacity.*
- Q9. What is the lowest height at which AT&T's antennas could achieve its coverage objectives from the proposed site?
- A9. *The minimum centerline height required to meet AT&T's coverage objectives for this search area is 140 AGL.*
- Q10. What is the total (not incremental) predicted coverage footprint (in square miles) for each frequency at antenna heights of 140 feet and 130 feet?
- A10. *The total predicted coverage footprint for each frequency at antenna heights of 140 feet and 130 feet are shown on the table below.*

Height (ft)	Area Coverage (mi ²) 700 MHz		Height (ft)	Area Coverage (mi ²) 1900 MHz	
	140	130		140	130
(≥ -83 dBm)	2.09	1.96	(≥ -86 dBm)	1.05	0.99
(≥ -93 dBm)	7.52	6.96	(≥ -96 dBm)	3.97	3.78

- Q11. Provide the lengths of reliable service the proposed site would provide to major roads within the proposed service area for the 700 MHz and 1900 MHz frequencies.
- A11. *The lengths of reliable service the proposed site would provide to major roads within the proposed service area are shown on the table below.*

Street Name	Major Road Coverage (mi) 700 MHz	Major Road Coverage (mi) 1900 MHz
Harris Rd/ Brickyard Rd ¹	0.96	0.97
Farmington Ave	0.20	0.27

¹ Harris Road turns into Brickyard Road and vice-versa. Therefore, the length coverage statistics shown in Table 2 above reflect composite values for these two roads.

Q12. Provide an estimate of the residential population living within the area that would be covered from the proposed facility.

A12. *The (incremental) residential population that would be covered by the proposed facility for 700 MHz LTE would be approximately 1,419 and for 1900 MHz LTE would be approximately 485.*

Q13. Provide an estimated traffic count for those portions of major roads that would be covered from the proposed facility.

A13. *The available vehicular traffic data for the subject area from the Connecticut Department of Transportation shows that as many as 20,900 vehicles per day passing through Farmington Avenue near the intersection with Brickyard Road and as many as 6,500 passing through Brickyard Road.*

Q14. Will the proposed facility support text-to-911 service? Is additional equipment required for this purpose? Is AT&T aware of any Public Safety Answering Points in the area of the proposed site that are able to accept text-to-911?

A14. *AT&T and this facility will be able to support text-to-911 service once this functionality is supported and requested by the Public Safety Answering Point (PSAP). AT&T is not aware that this functionality has yet been requested for this area.*

Q15. Would AT&T's installation comply with the intent of the *Warning, Alert and Response Network Act of 2006*?

A15. Yes.

Q16. Provide a cost estimate for AT&T's equipment/installation.

A16. *The estimated cost for AT&T's equipment/installation is approximately \$250,000.*

CERTIFICATE OF SERVICE

I hereby certify that on this day, fifteen copies of the foregoing were sent electronically and by overnight mail to the Connecticut Siting Council and:

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Dated: January 7, 2015


Lucia Chiochio
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cc: Jessica Rincon, AT&T
Adam Braillard, Smartlink
Martin Lavin, C Squared Systems
Christopher B. Fisher, Esq.

AT&T's S3393 Search Ring

