

TOWN OF ACTON  
PLANNING BOARD

PUBLIC HEARING  
5 CRAIG ROAD - CELL TOWER APPLICATION

APRIL 1, 2014  
ACTON TOWN HALL  
ROOM 204  
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ACTON, MASSACHUSETTS  
8:03 p.m.

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P R O C E E D I N G S

8:03 p.m.

CHAIRMAN CLYMER: So we're going to reopen the eight o'clock hearing on the cell tower, and we'll push that back about five minutes to finish up on this.

(Recess from 8:04 p.m., until 8:16 p.m.)

CHAIRMAN CLYMER: So we've already opened the public hearing on the cell tower. So, Mr. Sousa, I don't know if you want to kick this off.

MR. SOUSA: I can. I believe this is on.

Good evening, Mr. Chairman, members of the Board. For the record, Ricardo Sousa, on behalf of the applicant SBA Towers and the co-applicant AT&T Wireless. And also with me tonight is Amjad Md who is the radio frequency engineer for AT&T Wireless; and our consultant, Dan Goulet from C Squared Systems, who also testified at the hearing -- at the last hearing on March 18th.

And, Mr. Chairman, we did not submit any additional testimony since the last hearing. It was my understanding that given the volume of testimony

1 that was submitted to the Board at the last hearing,  
2 it was my understanding that the Board wanted some  
3 time to digest that information and asked that we  
4 come back tonight to try to answer any questions  
5 that may still remain outstanding, and we're here  
6 tonight for that purpose.

7 And so I would defer to you with respect  
8 to any questions that still remain relative to any  
9 aspect of the application of course.

10 CHAIRMAN CLYMER: Okay. And just before  
11 we get started, just so the public knows. We  
12 haven't closed the public hearing; so what we're  
13 going to do is we're going to deliberate. We're  
14 going to ask some questions. We're going to leave  
15 it open, and we're going to leave some time for some  
16 last comments; and we'd really like them to be in  
17 reference to anything you've heard today that you  
18 haven't said before. And that way we can make sure  
19 that everyone has a final say, and we certainly will  
20 allow you as well to have a final say based on the  
21 discussions.

22 MR. SOUSA: I appreciate that.

23 CHAIRMAN CLYMER: So we do want to make  
24 sure that everyone is heard, but if we could do it

1 in an orderly way. So if you don't like something  
2 you hear, you're going to have a chance to respond  
3 but let's try not to talk over other people and all  
4 that; so that you can take good transcripts, and  
5 everyone can be heard.

6 MR. SOUSA: Right.

7 CHAIRMAN CLYMER: So I think with that, I  
8 think maybe we'll start with the Board just asking  
9 questions and --

10 MR. SOUSA: Sure.

11 CHAIRMAN CLYMER: -- and we can ask them;  
12 and then we've got Dave here, and we've got  
13 Mr. Goulet there, and we'll direct some to you as  
14 well.

15 MR. SOUSA: Of course.

16 CHAIRMAN CLYMER: Derrick, do you have any  
17 specific questions you want to pose at this point?

18 MR. CHIN: I'll go back to the question I  
19 asked the last time. You're saying you want a  
20 permit to put up a tower.

21 MR. SOUSA: Correct.

22 MR. CHIN: And this tower does not improve  
23 4G service further west on Route 2 beyond the 3G  
24 service right now, according to your maps.

1 MR. SOUSA: It does not improve 4G service  
2 beyond -- could you just rephrase the question.

3 MR. CHIN: It does not improve 4G service  
4 much further beyond what 3G is providing right now.  
5 It does not go further west. All it does is  
6 enhances the signal in 3G.

7 MR. SOUSA: Well, actually it actually  
8 serves three purposes as was testified at the last  
9 hearing. First of all, there's not an anchor site  
10 at this location, and so there is one sector at  
11 Annursnac Hill that is being overloaded that needs  
12 to be redirected closer to that tower.

13 MR. CHIN: Excuse me. You say it is  
14 overloaded?

15 MR. SOUSA: That's correct.

16 MR. CHIN: Do we have data on that? Dave,  
17 have you seen that? Dave Maxson?

18 Do you believe Annursnac Hill is overloaded?

19 MR. MAXSON: If I may. Thank you.

20 MR. SOUSA: Sure.

21 MR. MAXSON: For the record, David Maxson,  
22 Isotrope.

23 What I indicated at the last meeting was  
24 that the information you have on the record about

1 Annursnac being overloaded is simply in the form of  
2 the statements that you're hearing from the  
3 applicant, and in the form of the presentation of  
4 some traffic data within the area of influence of  
5 one of the sectors of Annursnac Hill.

6 There is no data on the record regarding  
7 dropped or blocked calls or other types of metrics  
8 that wireless companies use to evaluate loading on  
9 cell sites.

10 MR. SOUSA: Thanks, David.

11 So what I think might be helpful is if  
12 Mr. Goulet could just spell out the three reasons  
13 why we need this location to try to directly address  
14 your question, I think that would be helpful. That  
15 way we could just restate exactly what we testified  
16 to at the last hearing with respect to the nature of  
17 the gap in coverage. Because as we said, this is  
18 not your typical gap in coverage. When the networks  
19 were first built, there was clearly absolutely no  
20 coverage in some parts of the country; and, therefore,  
21 we needed a site to simply provide coverage where  
22 there was absolutely no coverage.

23 The nature of gaps these days is that they  
24 are a lot more complicated because there are

1 existing networks that are up and running and  
2 operational. And so I'd like Mr. Goulet, if he  
3 could, to just rephrase the three reasons why we  
4 need this site from a radio frequency perspective  
5 and why those three reasons rise to the level of a  
6 significant gap in coverage.

7 MR. GOULET: Good evening. Dan Goulet,  
8 for the record, C Squared Systems, representing  
9 AT&T.

10 To clarify --

11 MR. YACOUBY: Can you speak up a little  
12 bit.

13 MR. GOULET: Yeah. To clarify or  
14 elaborate on what Mr. Maxson was just saying, AT&T  
15 did not provide switch data, but we most certainly  
16 provided you data showing that Annursnac Hill is  
17 overloaded. We gave you drive test data. We gave  
18 you the best server plots which were Exhibit 5,  
19 showing the area, the footprint of Annursnac Hill in  
20 the beta sector. These predictive plots are  
21 accepted as industry standard use.

22 Carriers can't go into every home and  
23 every single driveway and take measurements on what  
24 the coverage is. So they drive test the major

1 roads. They model tune which is what we did here.  
2 I presented drive test data over the predictive  
3 models which validated that the models were  
4 accurate. We're not just throwing down some blotch  
5 of coverage. It matches up and aligns with the  
6 actual drive data that was collected with pretty  
7 sophisticated equipment.

8 Now, again, we're not talking about voice  
9 here, an isolated case. This isn't -- we're not  
10 back in 1970 when we were talking dropped calls, and  
11 ineffective attempts, couldn't get on the network.  
12 What we're talking about is data through-put.  
13 That's what 3G and 4G is. Eventually 4G, when they  
14 introduce VoLTE, which is Voice Over LTE, then you  
15 will have voice on top of -- on the 4G network. So  
16 you'll have data and voice; but what we're talking  
17 about here, we're talking about through-puts that  
18 you don't have. You've got poor quality, unreliable  
19 service because AT&T has a gap in the network, and  
20 we've presented that with the existing drive test  
21 data plots.

22 So AT&T is trying to do three things here.  
23 They're trying to bring in a dominant server to  
24 offload Route 2, 2A, provide some coverage to the

1 residents in the areas south of Route 2. That's  
2 number one. They're trying to fill that gap on  
3 Route 2 and eliminate the problems of poor signal  
4 that they currently have that the drive test data  
5 shows.

6 The other thing they're trying to do is  
7 once this new site goes in, what they'll do is  
8 reorient and down tilt some of the surrounding sites  
9 to point those sectors where they can better serve  
10 areas of Acton.

11 So they're going to offload Annursnac  
12 Hill. They'll probably reorient Annursnac Hill.  
13 They're going to relieve the capacity problems on  
14 Annursnac Hill, and they're going to fill a gap on  
15 Route 2, 2A, and some of these other major roads  
16 that have significant traffic counts.

17 I mean your ordinance clearly states that  
18 the gap can be defined as areas of heavy traffic  
19 corridors. And I mentioned the last time that  
20 you've got, you know, 41,000 counts just about where  
21 the gap is on Route 2; a second gap you have 38,000.  
22 Then you've got 26,000 going up 2A before you hit  
23 where Annursnac Hill covers, and then you've got  
24 another 9,000 just south of the junction of Route 2

1 and 2A. So that's what AT&T is trying to do here,  
2 and we did present data, and we did present industry  
3 standard plots that have been accepted in federal  
4 courts and other boards all across the country.

5 CHAIRMAN CLYMER: Can I ask you a question  
6 on that though.

7 MR. GOULET: Sure.

8 CHAIRMAN CLYMER: You know, I know you  
9 said the -- you were referring to our bylaw. I mean  
10 I don't see in our bylaw where it says we should  
11 focus solely on 1900 megahertz band when we look at  
12 whether there's coverage. Why should we focus on  
13 that? That's a question I think I asked you last  
14 time on why the 800 megahertz band coverage is not  
15 relevant from your perspective?

16 MR. GOULET: I think what we talked about  
17 was what's coming out with 4G is a 700 megahertz  
18 band and the 1900 megahertz band working on top of  
19 that.

20 Now, one might think, well, 700 megahertz  
21 should have as good a footprint as the 3G 800  
22 megahertz, but it doesn't, because it's a much lower  
23 output power of the radios. So the signal coming  
24 out of those antennas are much lower than what

1 currently comes out of the 3G network. Now, that 3G  
2 network is going to go away. AT&T is trying to  
3 design a network that they're currently deploying.  
4 So you can't -- to give you switch data today, even  
5 if AT&T agreed to do that, it would be of no value  
6 because the 4G is not -- it's partially launched.  
7 It's launched. I take that back. It is launched,  
8 but there aren't enough users on it yet that you  
9 would be able to see the impact of all of the poor  
10 quality areas.

11 So your 700 -- I guess, let me back up a  
12 little bit. You're worried about us not showing you  
13 an 800 footprint. We're showing you a 1900 footprint.  
14 Well, even if we showed you a 700 megahertz footprint,  
15 it's going to be comparable to what the 800 is today.  
16 So what we presented you with was what the 800 is  
17 today and the 1900, which the 1900 they're currently  
18 using for capacity offload because the 800 won't  
19 support the usage and the traffic that's on the  
20 network. They have to use 1900. That's why they  
21 spent the money, and they bought 1900, and they  
22 bought AWS band, and they bought WCS band. They  
23 bought all this spectrum along with the 700 spectrum  
24 because their current bandwidth can't support the

1 usage and the demand that's there.

2 CHAIRMAN CLYMER: So, again, I guess we're  
3 on -- where I'm still having problems with that is  
4 that, you know, today, there's got to be some  
5 offloading of coverage to that 800. I mean, you know,  
6 I look at the maps, and, you know, the perspective  
7 is that -- and maybe I'm misunderstanding this -- but  
8 if the 1900 is a narrower area, so that the lower  
9 frequencies are a wider area, I'm not sure I see why  
10 that wider area, that that wouldn't change some of  
11 your maps, the coverage maps that show weak coverage  
12 where that additional coverage might support that,  
13 and the coverage would be better. So I may be  
14 misunderstanding, but I don't see why -- and I know  
15 that there was a request to get the data including  
16 the 800 megahertz data; and for whatever reason, you  
17 know, that was not something that AT&T was willing  
18 to provide.

19 So I just want to make sure that we  
20 understand as a Board is this a gap because we're  
21 not looking at the 800? Is it a gap because in the  
22 future something's going to change, and the 800's  
23 not going to be available? I'm thinking more about  
24 today.

1 MR. GOULET: Okay. So the problem  
2 is -- I'm trying to -- the 1900 that was presented  
3 to you is because they're using 1900 today. They've  
4 already exhausted the 800. So the overload capacity  
5 is on the 1900. So if they continue to have gaps in  
6 the 1900, then what happens is you don't get  
7 reliable usage on the 800 because there's too many  
8 people on that layer. So they need to offload onto  
9 the 1900. So the critical problem here or the key  
10 focus they're designing their network based on the  
11 1900. That's why we're here tonight. Because the  
12 800 -- the 800's already full.

13 CHAIRMAN CLYMER: And just from a  
14 standpoint of wanting to -- I mean, where can I look  
15 at data that's been submitted that shows that that  
16 is at total capacity, and because of that, the 1900  
17 is really the only relevant thing at this point? I  
18 guess I'm looking for where we can see that.

19 MR. GOULET: You can't.

20 CHAIRMAN CLYMER: Okay.

21 MR. GOULET: To answer your question, that  
22 switch data was not provided.

23 CHAIRMAN CLYMER: And is that -- I mean in  
24 other situations where -- I mean, is that something

1 that people never look at or -- I mean we're asking  
2 for that.

3 MR. GOULET: AT&T looks at it constantly.  
4 That's why they issue these surge ratings. It gets  
5 flagged ahead of time. They get warnings. They get  
6 hourly traffic data, usage data off of their switch.  
7 So they're looking at that all the time, and sectors  
8 get flagged. This sector is approaching capacity.  
9 We're going to have problems on this sector. We've  
10 got to do something.

11 Now, we, AT&T would not offer that switch  
12 data in a forum such as this because it becomes  
13 public information. They've provided it in courts  
14 of law where they had to, but they're typically not  
15 going to release confidential AT&T proprietary  
16 information at a public hearing; and I'm not sure I  
17 understand the need for that.

18 I mean, AT&T wouldn't be here and wouldn't  
19 have bought the 1900 spectrum and be trying to build  
20 a site here to fill in a gap just on a whim.  
21 They're doing it because they've already identified  
22 a problem. They've gone to their design engineers  
23 and said we have to fix this problem. How do we fix  
24 it? We've got a coverage gap here. We've got

1 capacity problems, and we need to get it fixed  
2 before it's totally broken.

3 CHAIRMAN CLYMER: And I guess is the  
4 coverage gap data? I mean is that what's causing  
5 the coverage gap, or is it --

6 MR. GOULET: It's data usage on the  
7 network, yes. It's both data and voice usage.  
8 There's so many people using it, and the demand just  
9 keeps growing incrementally. The more people that  
10 find out what they can do with it, the more they're  
11 using it, and so there's more and more people  
12 becoming untethered from their cable access and  
13 their landline phones, and they're doing everything  
14 wirelessly; so the bandwidth has to come from  
15 someplace.

16 If they're not using Comcast or whoever  
17 the cable company is, and they're working -- they're  
18 running businesses out of their homes, and they're  
19 doing it wirelessly, you know, then that demand has  
20 to be met.

21 CHAIRMAN CLYMER: Yeah, I think one of the  
22 things we're trying to do here is we have our bylaw,  
23 and our bylaw lays out what we're trying to do here,  
24 and I think the concern that we have is, you know,

1 really where is there a gap? Is this a future gap  
2 or present gap? And, you know, that's one of the  
3 things that I think we're all struggling with in  
4 getting the data we need.

5 MR. GOULET: Now, what I -- excuse  
6 me -- but what I showed you was a present gap. This  
7 is existing drive data that we presented. It hasn't  
8 been adjusted in any way. We didn't adjust for  
9 foliage. We didn't adjust for additional loading.  
10 We drove around in vehicles, some 65 miles of roads,  
11 and we collected what you, the user, would  
12 experience on your wireless device. It all gets  
13 stored in a laptop while we're driving. It gets  
14 post processed. We get a number of metrics coming  
15 out of this, but the metric that I used here was  
16 RSCP, which is received no signal strength for the  
17 circuit packet for data usage. That's what I'm  
18 showing you here.

19 So we did present data, and it is an  
20 existing problem, and the business about the 700 meg,  
21 and it's going to have a bigger footprint, it really  
22 isn't, because the 700 meg LTE has very limited  
23 power. It goes out at 20 dBm. The current system  
24 goes out at 43 dBm. Just to put that into

1 perspective, for every 3 dB change, you double or  
2 half the power; so, for example, 20 dB to 23 dB,  
3 you're doubling that power. So the current network,  
4 the 800 is at 43. The 700 and the 1900 only operate  
5 at 20 for 700, and 23 for 1900.

6 CHAIRMAN CLYMER: Okay. I just have one  
7 last question on this topic.

8 MR. GOULET: Okay.

9 CHAIRMAN CLYMER: So you're saying that  
10 the drive test is the experience that we would get  
11 using a device.

12 MR. GOULET: Correct. The drive test is  
13 just us going out with laptops. We have an air card  
14 interface that you can buy anywhere at Verizon or  
15 AT&T or Radio Shack or whatever network you're on,  
16 and you plug this into your laptop, and that's how  
17 you are connected to the rest of the world wirelessly.  
18 so we have these air cards plugged in, and we're  
19 collecting data.

20 In addition to that, we have high speed  
21 scanners that are collecting the pilot signal from  
22 each site. So on top of that actual data from the  
23 device, we're collecting the receive signal strength  
24 from all these sectors, and it tells us which sector

1 we're on, what level they're serving us at.

2 CHAIRMAN CLYMER: Okay. And but just to  
3 finish up on my point, so when I have my device, I  
4 mean, if I'm driving in that area of weak coverage,  
5 weaker coverage, is -- you're saying that the other  
6 bands that might kick in are all used up; so I won't  
7 see that in my experience. I mean I've got to  
8 be -- I've got to be going for that 1900 because  
9 that's all that's available to me.

10 MR. GOULET: Right. Because the usage  
11 on the 800 is such that because it has a larger  
12 footprint, it grabs the most users.

13 So, for example, if just this inner circle  
14 here is the 1900, and the inner circle plus outside  
15 of that circle is the 800, most of the users, if  
16 they're in the inner circle, they're going to be on  
17 the 1900 because they have an adequate signal. Once  
18 they leave and walk outside that inner circle, they  
19 get handed down to the 800. Well, when you look at  
20 these plots, you can see where the rest of the users  
21 are going to be on 800. That's a lot of users.

22 Every place that you don't see the green  
23 or orange on the coverage plots for the 1900, that  
24 means those people are on 800. If you get -- if you

1 have these counts, 40,000 people in a section that's  
2 800 meg, the through-puts just drop; and latency,  
3 which is how long it takes for the data transmissions  
4 to go through, increases; and the customer has a  
5 terrible experience, and that's just what AT&T's  
6 trying to avoid.

7 They want them -- when they get on their  
8 network, they want them to have reliable coverage  
9 and have a good experience, not a bad experience.

10 CHAIRMAN CLYMER: Okay. And Roland --

11 MR. BARTL: I have a question.

12 Let's assume the scenario, you know, rush  
13 hour time or everybody's coming home from vacation.  
14 The kids are watching the latest from Hollywood in  
15 their wireless TV in the car, and I want to -- and I  
16 want to make a phone call from, say, Hosmer Street  
17 to my mother on School Street to check in with her  
18 how she's doing on the cell phone. What happens to  
19 my phone call?

20 MR. GOULET: On the current network?

21 MR. BARTL: On the current network, the  
22 way it sits right now.

23 MR. GOULET: On the current network --

24 MR. BARTL: Yep.

1 MR. GOULET: -- if there is sufficient  
2 capacity to handle that call, then you will be able  
3 to make that call.

4 MR. BARTL: Right. So the Hollywood  
5 movies could cut out my phone call? I'm just  
6 setting that scenario up. Is that the case?

7 MR. GOULET: It could, yes.

8 MR. BARTL: Is that what the  
9 Telecommunications Act was set up to do?

10 MR. GOULET: I wasn't involved when they  
11 set it up.

12 MR. BARTL: Well, I'm just asking you.  
13 You're an expert in technical matters. I'm sure  
14 you've been asked this question before.

15 MR. GOULET: I'm an expert in this stuff,  
16 but I'm not an expert on why the Telecommunications  
17 Act was set up.

18 CHAIRMAN CLYMER: Just to follow up on  
19 that though. What data would tell us that that's  
20 happening? I mean, what data would say, hey, at  
21 this time, you can't make a phone call because all  
22 of the capacity's used up? I mean, where we would  
23 see that?

24 MR. GOULET: Well, what you would

1 experience is you wouldn't be able to connect. What  
2 data is available? That's AT&T's switch data is  
3 available.

4 MR. YACOUBY: And they don't give that  
5 out.

6 I have a question. I think if I can kind  
7 of -- first of all, I think what we're struggling  
8 with is the definition of significant gap.

9 Throughout all of this action, I haven't  
10 heard that much disagreement between what Mr. Maxson  
11 presented and you on a technical level. If you only  
12 looked at 1900, you might see this. If you look at  
13 800, you might see that, but the fundamental data,  
14 if you're looking apples to apples -- and I don't  
15 want to put words in Dave's mouth -- you agree. The  
16 question is which data you're looking at to define  
17 what a significant gap is. I mean that's -- I think  
18 that's what we're struggling with, and that's what  
19 the bylaw addresses.

20 I think the problem is it's gotten much  
21 more complex when you start saying, well, a  
22 significant gap is now being defined over multiple  
23 bands and multiple uses as opposed to just voice  
24 over a single band. That's what I'm struggling

1 with.

2 Because the two data sets we've looked at  
3 that I think that we could use in our judgement is  
4 the drive data that you've done, kind of the  
5 informal data, and the more fancy data that you've  
6 done; and at its core, you're not coming to  
7 dramatically different conclusions.

8 MR. GOULET: Well, the --

9 MR. YACOUBY: Is that a fair -- is that a  
10 fair statement, David? I haven't really said, well,  
11 no, their data is wrong, and yours is right. It's  
12 if we're looking at the same things, we're arriving  
13 at similar conclusions? I'm just trying to get a  
14 technical question first. Is that true? Or is  
15 there data you're saying it's white, and they're  
16 saying it's black?

17 Please. Because part of this is the data  
18 we're looking at.

19 MR. MAXSON: Thank you.

20 It's hard to say that there are things  
21 that we agree on with respect to this claim of  
22 significant gap because there is data available to  
23 you that's looking at particular things. You have  
24 evidence from the applicant that describes what they

1 consider to be a gap in coverage at 1900 megahertz,  
2 and they have given you evidence from which you can  
3 infer they have a capacity problem at 1900 megahertz.

4           There's drive test data that we have, you  
5 know, vetted and figured out what's wrong with it in  
6 that there was one sector that was turned off the  
7 day the drive test was made; but allowing for that,  
8 there's drive test data looking at the signal  
9 strength, the coverage from 1900 megahertz. And  
10 then you have this issue raised, in part, by  
11 residents who say, but phone service on AT&T network  
12 is extremely reliable in this area. And you have  
13 two submissions that don't completely rise to the  
14 level of a drive test with a computer connected to a  
15 phone as described by Mr. Goulet, but they are  
16 systematic, verifiable, repeatable methodologies  
17 with numerous data points that suggest that  
18 telephone service in that loop of Hosmer, School,  
19 and -- School Street and Route 2 appears to be quite  
20 robust.

21           And this gets to your having to sort of  
22 suss out what is the appropriate metric for a gap in  
23 service under the bylaw with respect to the evidence  
24 you have before you.

1           We have no other evidence about the  
2 performance at 800 megahertz or at 700 megahertz  
3 than the informal testing that you have on the  
4 record. The applicant actually has drive test data  
5 that they declined to submit at 800 megahertz.

6           So to kind of weigh it altogether, you're  
7 hearing these three points from the applicant about  
8 what are the components of their significant gap.  
9 One of them relates to their assessment of coverage  
10 at 1900 megahertz, and one of them relates to their  
11 concern about the performance of Annursnac Hill on  
12 Route 2 in Acton because that sector of Annursnac  
13 Hill serves Route 2A, Route 2 -- and what was  
14 it? -- Commonwealth Avenue.

15           So they've given you some data from which  
16 you can infer, if you choose to, that they have  
17 problems with their current network.

18           And then, I think, the last point that  
19 they were making is that as they're deploying their  
20 LTE network, and more and more people get LTE  
21 phones, the traffic on their LTE network will pick  
22 up, and it will be a problem later if it's not a  
23 problem now in terms of capacity. So they're trying  
24 to make that case as well.

1 MR. YACOUBY: Is LTE 1900 exclusively?

2 MR. MAXSON: Their LTE service operates at  
3 700 megahertz and at 1900 megahertz.

4 CHAIRMAN CLYMER: But Voice Over LTE is  
5 that -- is that effective? I mean, is that  
6 something that actually carriers are using now?

7 MR. MAXSON: They're not using it now.  
8 It's -- as I understand, it's in the planning  
9 stages. In fact, I don't know that any  
10 phones -- maybe some phones are being offered today  
11 that might support Voice Over LTE, but older phones  
12 likely do not support it because it hasn't -- it  
13 wasn't invented at the time the phone was produced.

14 MR. BOURDON: To the applicant, do you  
15 know if the 1900 band has been turned on at Post  
16 Office Square yet? It wasn't as of two weeks ago.

17 MR. GOULET: The 1900, the beta -- that  
18 one sector has not been turned on I just found out.  
19 They're still having problems with that.

20 MR. SOUSA: Once, again, it has no effect  
21 on this gap.

22 MR. GOULET: But that sector doesn't have  
23 anything to do with the area that we're talking  
24 about here because it doesn't get down to Route 2 or

1 2A. It only gets the upper portion of Great Road.  
2 So it doesn't really offload the area that Annursnac  
3 Hill is covering.

4 MR. SOUSA: So I don't mean to take the  
5 mic. from Mr. Goulet, but I just wanted to try to  
6 address Roland's question which is is that what the  
7 Telecommunications Act had in mind?

8 Competitive wireless services is what, I  
9 think, in my reading and my experience the  
10 Telecommunications Act had in mind; and so it  
11 doesn't say that we're supposed to live in 1990 and  
12 just make competitive wireless calls on 3G networks  
13 forever, and that's all we can do on wireless  
14 networks.

15 Instead, your bylaw, which is actually  
16 incredibly comprehensive and incredibly detail  
17 oriented talks about wireless services not only for  
18 voice but talks about smartphones as well and  
19 tablets. It talks broadly about what a significant  
20 gap in coverage is. It's not just dealing with  
21 voice.

22 And so we want to make sure that competitive  
23 wireless services are offered in a reliable fashion,  
24 and I apologize maybe not tablets, but it does use

1 smartphones, and I'll read it to you.

2 A portable -- a "Personal Wireless Service  
3 Device," which is what has to be used in a reliable  
4 fashion, is "a portable, fixed, or mobile Personal  
5 Wireless Service communications device, such as,  
6 without limitation, a car phone, cell phone,  
7 personal digital assistant, or smart phone, used by  
8 a subscriber or remote user to connect to a  
9 Carrier's Personal Wireless Services network."

10 And as you know today, we're not just  
11 using these devices for phone calls; we're using  
12 them for data transmission. In fact, that's what's  
13 overloading the networks; and so we have to protect  
14 the right of the carriers to be able to offer that  
15 to the users. This is all driven by the users.

16 AT&T is not in the business of building  
17 towers simply to build towers or to build wireless  
18 installations to build wireless installations. It's  
19 in the business of building reliable networks. I  
20 always ask let's take a step back. Would we be here  
21 spending the time, the effort, the money to build an  
22 installation and to build a tower if we really  
23 didn't need it?

24 So that's sort of the first premise. And

1       there seems to be a suggestion, not specifically,  
2       but an undertone of suggestion that we're somehow  
3       building a superfluous site; that we're building a  
4       site on spec., and that's not what we're doing.

5               We're trying to fill a problem that we  
6       have in our network now that is shown in the drive  
7       test data. We've shown you various forms of data  
8       points to show you what the problem is; the first of  
9       which is existing propagation maps, projected  
10      propagation maps. We then went a step further and  
11      we did a drive test. We had that consultant's  
12      company come here and testify with respect to that  
13      drive test.

14             This Board has had its own consultant also  
15      verify the drive test with a couple of corrections.  
16      We have admitted to those errors. Those errors,  
17      however, don't suggest that there's still not a  
18      significant gap in coverage.

19             I think it's fairly clear in the testimony  
20      that with respect to the drive test, there's a  
21      problem with this network. In fact, it's a fairly  
22      complex problem, and that's what we're trying to fix  
23      with this site; and we're also doing it in a way  
24      that is consistent with your bylaw.

1           We're going in a limited industrial zone.  
2           We have offered various designs in order to propose  
3           this structure to accommodate this wireless antenna  
4           installation in a form of a CAM, in the form of a  
5           monopine, in the form of various structures that  
6           would be able to accommodate this installation.

7           We've proposed a height that's significantly  
8           lower than that which would be potentially permitted  
9           under your zoning bylaw, all to be able to fill this  
10          gap in coverage, but to do it in a way that's  
11          consistent with your bylaw.

12          And so I would also ask that you reread  
13          the definition of significant gap because it doesn't  
14          just talk about are there 4,000 people who don't  
15          have phone service? It doesn't say that.

16          It also doesn't suggest that this Board  
17          can design our network for us and tell us which of  
18          the FCC licenses that we've paid capital for we can  
19          utilize and not utilize. Your bylaw doesn't say  
20          that either. Instead, it has a fairly complex  
21          definition of significant gap in coverage. In part  
22          and parcel it reads "In determining whether or not a  
23          particular carrier's coverage gap is significant, a  
24          relatively small or modest geographic area may be

1 considered a significant gap if such geographic area  
2 is densely populated or is frequently used by a  
3 large number of persons for active recreation or  
4 similar purposes who are or are predicted to be  
5 remote users of compatible user services devices,  
6 and/or such geographic area straddles one or more  
7 public highways or commercial rail lines."

8 And in this case, we've submitted testimony  
9 that really states to the Board that the number of  
10 users affected by this part of Acton is significant:  
11 41,000 traffic counts on Route 2. I believe it's  
12 29,000 on 2A. Those are significant numbers.

13 We're not trying to provide wireless  
14 service to two or three families at the end of a  
15 cul-de-sac which may not be protected under the  
16 Telecommunications Act. We're trying to do much,  
17 much more than that, and we try to do it in a way  
18 that's responsible, and that's consistent with this  
19 bylaw.

20 CHAIRMAN CLYMER: So the one point that  
21 Dave made before that you have the data that says  
22 what the drive -- the coverage map would look like  
23 for 1900 and 8 00 but declined to provide it. Is  
24 that --

1 MR. SOUSA: What the coverage map would  
2 look like?

3 CHAIRMAN CLYMER: Maybe I'm saying that  
4 wrong, Dave, but what was the specific, and maybe  
5 you can, you know, indicate what the specific data  
6 is that you requested that they did not provide.

7 MR. MAXSON: Specifically when we got the  
8 information from another gentleman at C Squared  
9 Systems regarding his methodology for conducting the  
10 drive test, he indicated what frequency bands and  
11 what channels he used to take measurements; and that  
12 battery of measurements included measurements in the  
13 cellular frequency band as well as in the PCS band;  
14 and that's the specific data that I asked for, but  
15 the applicant declined to submit.

16 As you know, the applicant is also quite  
17 capable of producing coverage maps at any frequency  
18 that it deems appropriate, and in this case it has  
19 deemed it appropriate that 1900 megahertz and only  
20 1900 megahertz is the frequency band at which they  
21 feel it's appropriate to submit to the Board for  
22 review.

23 CHAIRMAN CLYMER: Okay. And is that data  
24 that you routinely ask for or you've asked for in

1 other situations?

2 MR. MAXSON: Yes, in a word. I, in the  
3 past, have generally seen applicants provide  
4 coverage data for more than one frequency band, and  
5 they make their case based on the service that their  
6 company provides not an individual component of the  
7 radio spectrum, and this is different.

8 CHAIRMAN CLYMER: Do you want to respond  
9 to that?

10 MR. GOULET: Yeah, I do. The reason we  
11 didn't provide 800 data is because 800 data,  
12 megahertz data in this instance is irrelevant. AT&T  
13 isn't designing an 800 megahertz network. They're  
14 basing their design on 1900 megahertz and 700  
15 megahertz, which we didn't have data for that yet.

16 We collected data for 800 and 1900, but  
17 why would we design -- I guess you're asking me to  
18 say -- we don't want to go back in time. The 800  
19 megahertz network, that whole technology is going to  
20 go away. It's being replaced by 700 megahertz, 4G  
21 LTE. AT&T is basing their design from experience on  
22 1900 because they know the 700 megahertz base  
23 platform is going to get quickly at capacity.

24 So they're designing across the country on

1 1900, and then on top of that layer to offload the  
2 1900, they purchased the AWS band, which is the  
3 2150, and then they purchased on top of that the WCS  
4 band, which is an even higher frequency and has an  
5 even smaller footprint.

6 So they've already spent the money in  
7 their planning so that they know when they reach  
8 capacity on the 1900, they're going to try to  
9 offload that with the other two bands that they've  
10 purchased with that additional spectrum, but they're  
11 not going to design on 800. There's no reason to  
12 show you 800. They're designing their network at  
13 PCS on 1900, and that's the data that we presented.

14 CHAIRMAN CLYMER: Right. But I mean our  
15 job is not to assess what AT&T is designing. Our  
16 job is to assess whether there's a significant gap  
17 in coverage.

18 MR. YACOUBY: Jeff, I have to disagree with  
19 you --

20 CHAIRMAN CLYMER: Well, let me finish  
21 talking first before you disagree.

22 MR. YACOUBY: You can't divorce the design  
23 from the gap.

24 CHAIRMAN CLYMER: Just wait a second

1        though.

2                    So I think you're saying that we should be  
3        sensitive of what AT&T is designing, and then based  
4        on what AT&T is designing, determine whether there's  
5        a significant gap, and I'm not sure that -- you  
6        know, and I'll speak for myself. I'm not sure I'm  
7        to that point.

8                    I would like to see that there is a  
9        significant gap, and if there isn't a significant  
10       gap with 800, I'd like to understand why that 800  
11       isn't available or the 700 that's going to replace  
12       it isn't available; and then I could say, well,  
13       yeah, there's a gap because, you know, there's not  
14       coverage that would pick up when the 1900 was not  
15       available. And so that's all I'm saying.

16                   I'm not questioning on how AT&T's designing  
17       their network. I'm just questioning whether based  
18       on what we have available today, is there a  
19       significant gap in coverage? And so that's the  
20       question I'm trying to answer for myself, and that's  
21       why I think, the 800 data would have been good to  
22       see because with the 800 data or the 700 that would  
23       replace it, if there was a significant gap, then  
24       we'd see that in the coverage maps.

1           So that's what I'm trying to get over at  
2           this point is that I haven't seen that when you take  
3           all those bands together, that there's a significant  
4           gap. I understand that AT&T is not trying to use  
5           older technology. I'm just trying to understand how  
6           all the available technology fits into whether there  
7           is a gap or not, and I don't know if I've articulated  
8           that well, but I think you're answering one question,  
9           and I think I'm trying to understand another.

10           Ray, if you have a comment on that, go  
11           ahead.

12           MR. YACOUBY: What I am saying is if 800  
13           is not part of their design, I can see why they  
14           wouldn't provide the data because it is irrelevant  
15           to the design. So if you put 800 in, there's a gap;  
16           they're not using 800. It's like so what?

17           So I think the 700 and the 1900 okay, yes,  
18           but if they're not using 800 in their design, 800 is  
19           irrelevant even though there may be full coverage at  
20           800.

21           CHAIRMAN CLYMER: Right. But I think they  
22           said the 700 and the 800 have -- I mean obviously  
23           the coverages are similar, but the question is --

24           MR. YACOUBY: That's a separate question.

1 I agree. That's a separate question. But I'm  
2 saying we can't say provide us the 800 data that's  
3 not part of your design. That makes no sense.  
4 Because if it's not part of the technical design,  
5 that's not giving me any data to make a decision on  
6 if it's not being used in their design. That's the  
7 point I was trying to make. 700, yes. So if 800 is  
8 not part of the technical design, it's completely  
9 irrelevant data.

10 CHAIRMAN CLYMER: And I guess the question  
11 is what is the difference between the 700 coverage  
12 and the 800 coverage?

13 MR. YACOUBY: That I agree with. That's a  
14 different issue.

15 MR. GOULET: And the reason no 700 data  
16 was provided is because at the time of the drive  
17 test, back in August of 2013, the 700 wasn't on the  
18 air. That's why we didn't collect 700 data.

19 Now, the second part of your question --

20 CHAIRMAN CLYMER: But the 800 was. If the  
21 700 and the 800 are similar, why wouldn't you look  
22 at the 800?

23 MR. SOUSA: He's going to talk about that.

24 CHAIRMAN CLYMER: Okay. I'll let you go.

1 I just want to make sure that --

2 MR. GOULET: If the 800 is already fully  
3 loaded, and AT&T is not deploying their LTE network  
4 based on 800, why would we need to look at 800 data?

5 CHAIRMAN CLYMER: I think what --

6 MR. YACOUBY: And I think Jeff said you  
7 need a proxy --

8 CHAIRMAN CLYMER: -- you're saying is --

9 MR. YACOUBY: -- for the 700 --

10 CHAIRMAN CLYMER: Go ahead.

11 MR. YACOUBY: -- right?

12 MR. GOULET: And so let me address the  
13 700. The 700 goes out at a lower power than the  
14 1900. If they were equal powers, it would have a  
15 better footprint, a much better footprint than the  
16 1900, but the 1900 goes out at a 23, which is double  
17 what the 700 goes out at.

18 So the 700 because of the 10 megahertz  
19 bandwidth that AT&T is going to offer for their  
20 services, which they need to use that full 10 meg,  
21 consequently these things, the radio for the 700 is  
22 weaker than the transmitter in your personal phone.  
23 That's how low the power is. It's 20 dBm. Your  
24 phone's 23. So we're not talking -- I mean, these

1 are very -- they're low powered devices. They  
2 do -- of course, they have a much higher antenna  
3 gain, but the problem -- what I was getting to  
4 before is we're not going out at 43 dBm, which is  
5 pretty high comparatively. We're only going out at  
6 20 because that's what the infrastructure equipment  
7 can do. That's all it can do. Then they get some  
8 gain out of the antennas that they have on the cell  
9 site, but these are low power.

10 So in comparison, yes, the 700 footprint  
11 will be slightly larger than the 1900, but it's  
12 still not going to fill in the gaps that we put up  
13 on the board for the 1900. You're still going to  
14 have all those gaps.

15 CHAIRMAN CLYMER: Maybe more directly how  
16 would the 700 footprint compare to the 800 footprint?

17 MR. GOULET: It would be slightly larger;  
18 but, again, it would not fill in these coverage  
19 gaps.

20 CHAIRMAN CLYMER: So --

21 MR. GOULET: It would add an additional  
22 fringe area, if you will. If I threw these coverage  
23 plots up there, it's going to add a little more,  
24 slightly more, but it's certainly not going to just

1 blanket the whole area because of the very low power  
2 that it operates at.

3 CHAIRMAN CLYMER: But would it be  
4 different than -- how different would it be from the  
5 results of the 1900 and the 800 bands together? How  
6 would that differ from the 1900 and the 700 bands  
7 together?

8 MR. GOULET: The 1900 and the 700 are  
9 going to work the way the 1900 and the 800 work  
10 today; but AT&T is deploying their 4G on 700 and  
11 1900. They're not deploying it on 800.

12 CHAIRMAN CLYMER: So the current 800  
13 service will disappear?

14 MR. GOULET: Eventually it will disappear,  
15 but for now they have to keep it for voice.

16 CHAIRMAN CLYMER: But it's not going to be  
17 replaced with anything? I mean, the towers -- I  
18 mean, I guess the question is --

19 MR. GOULET: No. No. No. It's not going  
20 to be replaced. It's going to be eventually  
21 replaced -- 3G will be eventually replaced by 4G.

22 CHAIRMAN CLYMER: Uh-huh.

23 MR. GOULET: But the towers aren't going  
24 to change, and the antennas aren't going to change.

1 The antennas that go up there now are multifrequency  
2 antennas. That's the way they're designed, so that  
3 you don't have 100 antennas on a tower. They're  
4 able to put multiple ports into the antenna, and  
5 different sections of the antenna are for different  
6 frequency bands.

7 CHAIRMAN CLYMER: Okay. So where that  
8 frequency is 800 today and that 3G is being phased  
9 out, is that going to then -- is that going to  
10 be -- where you don't have the 700 today, is that  
11 going to be replaced with the 700 band?

12 MR. GOULET: What will happen is after 3G  
13 goes away, and AT&T has all their users converted  
14 onto 4G, then they will start to utilize that 800  
15 spectrum; but you have to remember they're going to  
16 utilize it for LTE. So, again, the footprint that  
17 the 3G has today at 43 dBm for output power out of  
18 the amps is going to go down to 20 dB.

19 So it's not -- for me to show you the 800  
20 footprint today is irrelevant because of this huge  
21 power drop that you're going to have when they get  
22 all the users off of 850. They've already got users  
23 on 700. They've got users on 1900. Now the last  
24 dinosaur 3G user is gone. Now they're going to say,

1 okay, now we'll use our 800 spectrum for LTE, but  
2 now they've got to change out all the equipment.  
3 They've got to reduce the power and drop down to  
4 that 20 dB.

5 So the --

6 MR. SOUSA: What's the time period for  
7 that estimate?

8 MR. GOULET: I have no idea.

9 MR. SOUSA: Years; right?

10 MR. GOULET: Yeah. We're talking -- it's  
11 nothing that's going to happen soon.

12 But so that is the reason -- and I guess I  
13 should have said it before. It's my fault. That is  
14 the reason there was no sense in looking at what the  
15 800 footprint is today on 3G UMTS at 43 dBm.

16 CHAIRMAN CLYMER: So can I just ask Dave  
17 to then explain why he requests that information.

18 MR. MAXSON: I'd like to take a quick side  
19 trip if I may.

20 CHAIRMAN CLYMER: Sure. Sure.

21 MR. MAXSON: You were told that AT&T is  
22 designing to 1900 megahertz across the United  
23 States.

24 MR. GOULET: I didn't say that.

1 MR. MAXSON: I thought I heard something  
2 to that effect. I do want to reassure you that 800  
3 megahertz is still important to AT&T. I'm involved  
4 in a proceeding in Connecticut where AT&T's  
5 consultant very much like C Squared Systems, another  
6 company in Massachusetts that provides this kind of  
7 work to AT&T in this region, submitted coverage data  
8 at 800 megahertz.

9 So I think it's important to realize that  
10 because the phones -- when you're on a voice call  
11 or you're on a 3G data connection and you're  
12 communicating through the network, the phones are  
13 handed off between 800 and 1900 megahertz.

14 So AT&T is not ignoring the presence of  
15 800 megahertz. It is not abandoning it at the expense  
16 of 1900 megahertz. They work together, and you have  
17 some comments in C Squared Systems' report about  
18 that using the term overlay. You have some other  
19 comments in my report about the fringes, and the  
20 proportions of population in the fringes as opposed  
21 to in the core and those kind of things.

22 You have information on all that in the  
23 record if you'd like to go back and spend some quiet  
24 time with it.

1 I think the important thing to focus on is  
2 this fundamental question. If you're concerned  
3 about the provision of service, do you look at the  
4 provision of service in the simple terms of can I  
5 make a phone call or can I have a data connection on  
6 my AT&T phone within this area? And then the next  
7 layer to that is well, what are the things that  
8 might keep me from making that phone call or having  
9 that data connection? Poor signal strength or a  
10 lack of capacity. You have whatever evidence you  
11 have on the record regarding those claims, and  
12 unless you're inclined to ask for more evidence and  
13 continue the hearing, you have a lot of information.

14 MR. YACOUBY: Right. Exactly.

15 MR. MAXSON: And you have the unenviable  
16 role of trying to figure out what the right thing to  
17 do is with respect to assessing a significant gap in  
18 service based on the evidence you have and in the  
19 context of what the applicant is requesting, and I  
20 think we can continue to talk at great length about  
21 all of these matters --

22 MR. YACOUBY: We're going in circles.

23 MR. MAXSON: -- of 800 megahertz coverage  
24 and if the dBs go down, and if it becomes LTE, what

1 happens then? It gets very confusing as you can see  
2 very quickly.

3 I would point out that what we found at  
4 1900 megahertz was that although the reference power  
5 level goes down for LTE, the threshold also goes  
6 down. So you have in the 1900 megahertz data that  
7 you now have on the record, the coverage maps and  
8 testimony, you have about the same coverage for 4G  
9 as for 3G at 1900 megahertz. It's not a whole lot  
10 of difference. So you don't really need to worry  
11 yourself about 43 dBm or 20 dBm or any of this other  
12 stuff that we engineers think about when we're doing  
13 the math.

14 But just that fundamental thing that at  
15 1900 megahertz, whether it's 3G or 4G, because the  
16 coverage thresholds are set the way they're set for  
17 the different technologies, you have similar coverage  
18 footprints from the same facility. And I hope that  
19 helped clarify things.

20 MR. CHIN: Would you repeat that thing  
21 that you'll get the same 4G service as existing  
22 today with 3G.

23 MR. YACOUBY: That's not what he said.

24 MR. MAXSON: Let me try again. We've done

1 coverage maps. We've calibrated our coverage maps.  
2 We've got data from the applicant on the power  
3 levels they're using. The applicant has also had  
4 their expert come in and provide some data as well  
5 that we saw at the last session and is in the  
6 C Squared report.

7 When we compare the coverage maps of 4G  
8 service at 1900 megahertz and 3G service at 1900  
9 megahertz, they are very similar. There's not much  
10 difference because although there is difference in  
11 the transmitted power levels of the reference signal  
12 that we're talking about, there's also a difference  
13 in the signal level threshold that they're using to  
14 create the map.

15 So while the numbers on the map may be  
16 different, the footprint of the two blobs of color  
17 at 1900 megahertz for 3G and for 4G are very  
18 similar.

19 MR. CHIN: And so 3G service today is very  
20 good?

21 MR. MAXSON: I would not draw that  
22 conclusion from what I was just saying. You have  
23 evidence on the record regarding existing service  
24 provided by AT&T both for voice calling and for 4G

1 data signal strength.

2 CHAIRMAN CLYMER: Dave, you said -- and  
3 I'm not asking you for more data, but you said that  
4 there's -- what more data could be provided to  
5 address these issues? You had said that, you know,  
6 you could get more data. What things haven't we  
7 asked for -- not that I'm asking for more, but what  
8 haven't we asked for that would provide us  
9 additional data to make this decision?

10 MR. MAXSON: Well, unfortunately the  
11 applicant's consultant has closed the door on some  
12 of the kinds of data that we might expect to look  
13 at, which has to do with the performance of the  
14 network in the area of interest which is basically  
15 radiating out from the rotary, covered by the  
16 Annursnac Hill sector that's pointed in that general  
17 direction; and there are the metrics that he  
18 mentioned that have to do with things like for phone  
19 calling, call drops, blocked calls, those kinds of  
20 issues; and then for data, things like latency, how  
21 long does it take for that data request to be  
22 responded to and to come through completely? Data  
23 speeds; number of users who are logged in  
24 simultaneously, various kinds of metrics like that

1 that would help show that if the applicant is, you  
2 know, making his case in a direct way, it would  
3 provide that kind of information and say, see,  
4 here's the statistics for this sector of Annursnac  
5 Hill. Here are statistics from three other facilities  
6 in the surrounding area. Notice how heavily loaded  
7 Annursnac Hill is.

8 MR. YACOUBY: That's the \$64,000 question  
9 because when that was addressed before, I believe  
10 they said, well, that's proprietary data that they  
11 wouldn't want to provide in the public domain.

12 The question I would ask is that typical?  
13 If Verizon was here, would they be making the same  
14 statement? If T-Mobile was here, would they be  
15 making -- because I understand very much when you  
16 talk about in terms of network traffic congestion  
17 and capacity utilization. Is that an industry  
18 standard where that's closely guarded, and are they  
19 acting any differently than the other five carriers?  
20 Would they also be making the same statement to us  
21 if we asked for that same data? That's really what  
22 I want to understand because that would tell me,  
23 okay, everybody's not going to give it to me. Then  
24 it wouldn't be fair to ask them for it or are they

1 just saying no, but if Verizon was here, they would  
2 say yes?

3 MR. MAXSON: I can't predict what another  
4 carrier would say --

5 MR. YACOUBY: In your experience.

6 MR. MAXSON: -- without having the real  
7 circumstances in front of me. It is --

8 MR. YACOUBY: Is that kind of data  
9 typically viewed as being proprietary?

10 MR. MAXSON: It is my recollection that  
11 every one of the wireless carriers that I've dealt  
12 with in the last 20 years has been willing in  
13 certain cases to provide that kind of metric  
14 regarding traffic on cell sites.

15 MR. YACOUBY: That answers my question.  
16 Thank you.

17 MR. MAXSON: At the same time, this other  
18 approach of saying that it's proprietary and not  
19 good for business to release that information  
20 publicly has also been used in the public forum. So  
21 I've seen it go both ways, and I've seen it go both  
22 ways with, to the best of my recollection, every  
23 carrier.

24 MR. YACOUBY: Okay. Thank you.

1 MR. BARTL: Then the question before the  
2 Board is that take it on face -- have faith in us  
3 that there's a significant gap, but we're not going  
4 to show you proof that there really is. Would that  
5 be fair to say then? We're telling you there's a  
6 significant gap. Believe us. But we're not showing  
7 you the data because we don't want you to see the  
8 data. Is that fair to say?

9 MR. MAXSON: It -- that --

10 MR. BARTL: Is that fair? I'm not sure,  
11 but is that a fair statement?

12 MR. MAXSON: In my estimation, what I've  
13 been hearing this evening is just that. We wouldn't  
14 build this facility; we wouldn't propose this  
15 facility; we wouldn't spend these great sums of  
16 money and waste your time and ours, you know, in my  
17 putting words in the applicant's mouths, if this  
18 weren't something that was important; that was  
19 critical to the network. And that's what they're  
20 asking you to base your -- in part, at least base  
21 your decision on, I assume.

22 One qualification, applicants make mistakes.  
23 I'm not saying that I see any mistakes here other  
24 than the fact that even in the process of reviewing

1 this application, there were numerous significant  
2 flaws in the information submitted to you, that  
3 we've cleared up, but it's taken a lot of work on  
4 everyone's part.

5 I have dealt with the occasional  
6 application -- I recall one in Northeastern  
7 Massachusetts where I went out to a site that was  
8 supposedly a significant gap. I looked across the  
9 salt marsh and half a mile away, I could see a cell  
10 tower, and I said why is this a gap? And it turned  
11 out it was because the guy who was doing the map  
12 didn't know it was a salt marsh, assumed it was a  
13 forest, and suddenly he had a gap on Route 1. I  
14 pointed that out. The application died on the vine,  
15 and I think I saved the applicant a ton of money.

16 So wireless companies do make mistakes.  
17 Decisions are made by committee. So it's -- I do  
18 not doubt at all the veracity of an applicant who  
19 says we're here because we've made a great effort to  
20 be here, and we're really sure of ourselves. This  
21 is really important. However, you're a board and  
22 your role is to review what's coming in and to weigh  
23 the evidence that you've been presented.

24 MR. BARTL: And if I may point out, you

1 know, we have a public here in Acton who relies on  
2 the Board to make such decision with careful  
3 consideration and based on knowledge of facts and  
4 data and not necessarily on suggestions.

5           You know, I think the Board -- as much as  
6 the Board needs to evaluate an application on the  
7 basis of the bylaw and the Telecommunications Act,  
8 it needs to be very careful that it complies with  
9 the standards and the expectations of the bylaw,  
10 because in many cases, placing a cell tower is  
11 viewed as an imposition by the abutters; and there  
12 needs to be that balance, and if it's justified,  
13 okay. If it's not and if the data isn't there to  
14 justify it, then it's difficult to impose that on  
15 the abutters. That's how I see it, and I'm not sure  
16 if I had to make a decision, I'd be able to make  
17 that imposition on the abutters, but I'm just doing  
18 that from a standpoint of this.

19           CHAIRMAN CLYMER: So before -- anyone else  
20 have any more questions?

21           MR. BUKOWSKI: Just one comment. So it  
22 seems like it's still unclear whether there's a  
23 significant gap, whether we're talking about voice  
24 or data. Part of what I'm hearing is that it's more

1 of a capacity issue, and maybe we're close to  
2 capacity, and maybe part of it is they're planning  
3 for the future knowing that there's going to be more  
4 capacity as people get more cell phones or more  
5 traffic or whatever it is. So can we look at it and  
6 say that -- I mean, I guess the zoning bylaw just  
7 says is there currently a significant gap? I'm not  
8 sure that's really clear.

9 MR. BARTL: It's a significant gap from  
10 a -- and I'm not a lawyer, but it's a significant  
11 gap in a carrier's personal wireless service network  
12 and personal wireless service; and there it goes  
13 back to relying on the definition that the FCC has  
14 under the Telecommunications Act; and as far as I  
15 know, that tends to focus on voice, on voice  
16 service, not so much on data streaming and movies  
17 and music and that kind of stuff.

18 MR. BOURDON: So what section of the bylaw  
19 is that?

20 MR. BARTL: Well, it's under the  
21 definitions. Personal wireless service, 3.10,  
22 there's a definition section, 3.10.3.9. It defines  
23 personal wireless services. 3.10.3.16 defines what  
24 a significant gap is, and those terms refer back.

1 You know, there's a coverage gap. Coverage gap in a  
2 Carrier's Personal Wireless Service, and you go to  
3 what is the definition of a personal wireless  
4 service, you know.

5 So there's also, of course, the commingling  
6 of services that happens with AT&T and Verizon, and  
7 all those other things, but, you know, is there a  
8 gap if you try to make a phone call? That's -- and  
9 I don't know if there is.

10 MR. YACOUBY: I just want to make -- my  
11 comment is I agree with what you're saying. I'm  
12 hearing capacity issues and planned capacity as  
13 opposed to a gap in coverage. I think we should  
14 use -- the raw definition in saying it's just voice  
15 I think would be inappropriate, given where the  
16 technology is and how phones are being used and the  
17 services that are being used. I think there's a  
18 broader definition.

19 MR. BARTL: Is the bylaw defining it that  
20 way?

21 MR. YACOUBY: I think the bylaw is written  
22 purposely not to nail it down to just voice. That's  
23 how I read it and understand it --

24 MR. BARTL: Okay.

1 MR. YACOUBY: -- but I'm struggling right  
2 now. You know, if we ask for a whole bunch more  
3 data, I don't think it's going to help us right now  
4 where we are. I think it's a judgement call as to  
5 how we define -- I'm still wondering if I can even  
6 vote on this because I don't think companies are in  
7 the business of just doing applications to do  
8 applications; so I think that's ...

9 At the same time, I think you're right.  
10 It is a question of the abutters if you're going to  
11 put a tower in, and we have to say there was good  
12 reason why that tower went up, actually both to the  
13 applicant and to the abutters. And right now I'm  
14 struggling to say -- we have no data to say, oh, no,  
15 there's a gap in coverage, put it up; or and to look  
16 at the abutters and say, yeah, there was a gap -- I'm  
17 hearing capacities. I'm hearing new technologies,  
18 which I can understand that, but I --

19 CHAIRMAN CLYMER: Well, Ray, let me make a  
20 suggestion. Why don't we let the abutters -- why  
21 don't we let them make a few comments. We can think  
22 about that. We can figure out any additional  
23 questions that we have, and then we can circle back.

24 And, Mr. Sousa, I'll give you a chance to

1 speak as well. If you'd like to --

2 MR. SOUSA: If you don't mind, I'd like to  
3 just address --

4 CHAIRMAN CLYMER: Okay.

5 MR. SOUSA: -- address Mr. Maxson's  
6 comments. I think it is always important to make  
7 sure the applicant's not making a mistake. And it's  
8 also dangerous to suggest that an applicant has made  
9 a mistake and to use an analogy about another  
10 application that has nothing to do with this  
11 application.

12 In order to confirm that there is not a  
13 mistake here, we have not only the RF engineers from  
14 AT&T Wireless, but we also have a third-party  
15 consultant who's verified the data and has provided  
16 a significant amount of testimony and data points  
17 and plots and drive test information to clarify the  
18 fact that this site is necessary to fill a significant  
19 gap in coverage. And I think it's important to not  
20 just think that all we're doing is coming up here to  
21 the mic. and saying we have a significant gap in  
22 coverage. You have to believe us. That's not  
23 what's happened at all.

24 We started off with radio frequency plots

1 showing what the coverage is now, the gaps in  
2 coverage. What the propagation would be like once  
3 this site is turned on. We then verified that with  
4 drive test data. There were a couple of errors that  
5 were clarified between Mr. Maxson and C Squared  
6 after C Squared got involved and came before this  
7 Board in an effort to clarify any issues and to  
8 reaffirm the drive tests that were performed, and to  
9 reaffirm the nature of the gap and the fact that  
10 it's not just a pure coverage gap. There are a  
11 couple of issues going on here.

12 And so there's a lot of testimony in the  
13 record, rather than just me coming up here and  
14 saying please give me this special permit because  
15 it's my understanding that AT&T has a gap in  
16 coverage. That's absolutely not the case. And,  
17 instead, the federal case law has suggested that  
18 boards rely on drive tests and propagation maps, in  
19 particular, because those methods are quote, "widely  
20 used throughout the wireless industry and are  
21 generally recognized as reliable and accurate."  
22 That's the T-Mobile Central number case. It's a  
23 federal case in connection with this particular  
24 area, this subject matter; and so it's important to

1 know that you do have a lot of data in front of you.  
2 You have a lot of reports.

3           When we left this hearing two weeks ago,  
4 it was my understanding that there was a lot of  
5 consistencies. While Mr. Maxson points out a couple  
6 of problems, and we know what they were, the sector  
7 of Annursnac Hill and the other sector at the Post  
8 Office that was not turned on, those were two areas  
9 that were clarified by the consultant for AT&T, but  
10 the remaining data that's in the record, I think  
11 there's a fair amount of consistency and understanding  
12 between the two consultants regarding the remaining  
13 data that was submitted to the Board and the nature  
14 of the gap that it describes, in particular, the  
15 drive test.

16           So I just wanted to respond to that, and,  
17 Mr. Chairman, I know you want members of the public  
18 to have an opportunity to talk.

19           Thank you.

20           CHAIRMAN CLYMER: Thank you.

21           MR. MAGLOTHIN: Mr. Chairman, members of  
22 the Board, good evening.

23           For the record, Michael Maglothin,  
24 288 School Street.

1           And just as part of your review and  
2 relating to determining the capability gaps, really  
3 how does this relate to the Telecommunications Act?  
4 I'd just ask that you consider a couple of questions  
5 and some points.

6           The first one being why when submitted by  
7 the same applicant in the same form years ago was  
8 AT&T not interested in the same site prior to that  
9 applicant being denied this site for WiMAX  
10 capability, which is equivalent to LTE which is  
11 being requested here.

12           Is SBA Towers, a group of Florida lawyers,  
13 planning deployments on behalf of AT&T? And if so,  
14 how is SBA Towers empowered and also qualified to  
15 identify our Town's signal and capacity needs?

16           And, lastly, Mr. Craig, the leaser and  
17 Chelmsford resident, who has not made an appearance  
18 here, has also admitted applying to SBA Towers for  
19 their support in order to generate additional  
20 retirement income. Is he qualified to determine  
21 capability needs?

22           That's it. Thank you.

23           MR. QUINN: Hi. Jim Quinn, 299 School  
24 Street.

1           Just a couple of brief things. At the  
2 previous meeting, Mr. Sousa did reference the case  
3 he just referred to a moment ago, Wyandotte County,  
4 Kansas City, Kansas versus T-Mobile, and the fact  
5 that the drive tests are reliable and accurate and  
6 need to be considered by the board, which this Board  
7 is considering most definitely; but as a tie-in to  
8 the discussion we were having earlier about  
9 proprietary information, I was looking through that  
10 particular case, and T-Mobile, the defendant in that  
11 case, did do drive tests, as was mentioned before,  
12 and also introduced evidence from tests showing  
13 numbers of dropped calls in the vicinity during one  
14 week, dropped calls during a different week. They  
15 also had other statistics about amount of usage,  
16 minutes between dropped calls. So apparently,  
17 T-Mobile did not have the same concern about  
18 releasing that proprietary information on that case.  
19 So I thought that was an interesting tie-in as far  
20 as that goes.

21           The only thing I wanted to state was  
22 there's been a lot of talk and technical talk and so  
23 on and so forth; but I did take time to go back and  
24 read all of the documentation from Isotrope,

1 everything from January just a couple weeks ago,  
2 March 13th, for example; and in the Isotrope memo  
3 dated March 13, 2014, Mr. Maxson states the  
4 applicant, therefore, continues to rely on the least  
5 effective portion of its radio spectrum as the  
6 reference for whether a significant gap in AT&T's  
7 service exists.

8 And when you start talking about all these  
9 different levels and frequencies, I kind of can't  
10 follow 100 percent, but that seemed like pretty  
11 plain English right there that basically they're  
12 basing their testing on something that is not that  
13 effective.

14 And he also referenced the fact, and it  
15 was referenced again earlier, that AT&T has declined  
16 to provide coverage modeling or drive test data  
17 which is already completed on the lower frequency  
18 bands; and that type of information is noted  
19 throughout Isotrope's feedback. They talk about how  
20 the drive test was flawed, about how when they did  
21 their own independent drive test they did see that  
22 there was acceptable coverage up to AT&T standards  
23 in the area of Craig Road, School Street, and Hosmer  
24 Street.

1           So I'd just like to say that where all  
2           that information does already exist, I'm not going  
3           to take the Board's time and reiterate it, but I  
4           just wanted to make those few points, and thank you  
5           for your time.

6           MS. QUINN: Good evening. Kathy Quinn,  
7           299 School Street.

8           I feel like I'm hearing a lot of  
9           uncertainty about our bylaw, and I know in the past  
10          that a moratorium has been put on the building of  
11          cell towers until clarification can be achieved on  
12          the Board. And I would certainly suggest that if  
13          you don't understand why they only want you to look  
14          at one level of the service, then you should not  
15          proceed until you have clarification of that, not  
16          just for our section of town, but if they're talking  
17          about cell towers are going to be needed, like  
18          telephone poles on your streets, in order to satisfy  
19          the communications act because each level has a  
20          smaller footprint, and instead of just having a cell  
21          tower in my neighborhood, one will be in yours, it's  
22          in everybody's best interest to really look closely  
23          at that.

24          I also -- I have a problem with -- the

1 last time it was 38,000. Now this week it's 41,000  
2 on the drive test. There's certainly not 41,000  
3 people at the Concord rotary at one time trying to  
4 use data. And 4G is only data at this point. It's  
5 not voice.

6 So even though AT&T tries to bundle voice  
7 and data in order to get through the communications  
8 act, you're not talking about voice right now at all  
9 because there's no phone at this moment that can do  
10 a voice LTE, as they've already said.

11 So already that, I think, gets us away  
12 from there being a gap, but you can't look at the  
13 number 41,000 as being the number of people in the  
14 gap because there certainly aren't, even though it  
15 may feel like it when you're trying to go through  
16 the Concord rotary, 41,000 people there at a time.

17 So I would say also too that I would ask  
18 the Town to look carefully at the case law that's  
19 been brought up because I know personally, I felt  
20 last time like some of that was a little threatening,  
21 and I looked at the cases, and they didn't actually  
22 have any relevance to what was being spoken at the  
23 time, which I think made me feel better because that  
24 wouldn't be -- I know everyone's concerned about

1 who's going to get sued in this case. Everyone's  
2 being very careful with their wording, et cetera,  
3 but if the case law doesn't apply, then that might  
4 also help you make your decision.

5           And then just this past week, there was  
6 another cell tower discussed in the newspaper. I  
7 would ask if you haven't read about it, that it's in  
8 the Beacon, our local paper, and it was a water  
9 tower -- a cell tower on water -- excuse me -- on  
10 water land, and the Water Commission denied the  
11 application because it would be unsightly to  
12 neighbors, and it would be something that caused a  
13 lowering in the value of their home; and I know  
14 you'll say, well, they're different. But why are  
15 you affording some residents of Acton more protection  
16 than others? I would say then there's also another  
17 reason for a moratorium on cell towers until you can  
18 clarify that in the bylaw because I have a question  
19 about why that's okay for some of my neighbors to  
20 have protection from the Town and for me not to.

21           And I just wanted to ask also for -- nobody  
22 has submitted pictures of all the trees that have  
23 been removed from that sight line where this tower  
24 will go up, and I would ask that the Town at least

1 look at what has happened there and realize the  
2 fuller visual impact that a cell tower will have  
3 there now since there are dozens of mature trees  
4 that have been removed.

5 CHAIRMAN CLYMER: Okay. So do you want  
6 to --

7 MR. BARTL: Can I ask some questions?

8 CHAIRMAN CLYMER: Yes, please do.

9 MR. BARTL: And I think they're for David,  
10 for Mr. Maxson.

11 Our zoning bylaw defines service coverage,  
12 and it talks about, you know, it's just cited here.  
13 "Service coverage refers to a geographic area where  
14 a remote user of a properly installed and operated  
15 Personal Wireless Service Device compatible with a  
16 Carrier's Personal Wireless Services network has a  
17 high probability of being able to connect to and  
18 communicate with such network with a reasonable  
19 quality of service. There are various measures of  
20 quality of service, including without limitation,  
21 received signal strength, various signal to noise  
22 and signal to interference ratio metrics" -- I'm  
23 reading this. It doesn't mean I understand  
24 completely all what this means -- "call

1 reliability." I understand that. In parentheses,  
2 "as indicated by dropped call ratios, blocked calls  
3 and the like" -- and now I don't know what that  
4 means -- "bit error rates."

5           Would it then be fair to say -- oh, and it  
6 also goes on that "For purposes of Section 3.10,"  
7 which is the section of the bylaw, "there shall be  
8 the presumption that Service Coverage shall be  
9 deemed to exist within a specific geographic area if  
10 the predicted or measured received signal power on a  
11 standards-compliant Personal Wireless Services  
12 Device placed outdoors within such geographic area  
13 is highly likely to be minus 90 dBm or greater,  
14 unless the Carrier in question demonstrates, by  
15 clear and convincing evidence prepared by qualified  
16 radio frequency engineer or other qualified  
17 professional, that higher signal strengths or  
18 alternative quality of service metrics are required  
19 to enable such Carrier to provide such Service  
20 Coverage within the specific geographic area in  
21 question."

22           So this is a lot of words, but is it then  
23 fair to say that when that quality of service is not  
24 reached and that the lack of quality of service as

1 described here is sufficiently pervasive and  
2 frequent that then we can talk about a service -- a  
3 significant gap in service coverage? That's  
4 question one, and I don't know --

5 MR. MAXSON: Yes. I think that's a  
6 reasonable interpretation of the context of what you  
7 just read.

8 MR. BARTL: Okay. So would you -- and  
9 again, I'm looking at these graphs and the data, and  
10 you know, I just -- I kind of get lost in it. I  
11 have to admit.

12 But would you say that the Planning Board  
13 has sufficient data in the record that would show  
14 that, you know, there is a gap, a significant gap  
15 based on received signal strengths, signal noise,  
16 interference, ratio metrics, call reliability, and  
17 bit error rates as the bylaw defines these things?

18 MR. MAXSON: The information that you  
19 mostly have is information about received signal  
20 strength. You do not have bit error rate data. You  
21 do not have call reliability data and other metrics  
22 of that sort.

23 MR. BARTL: Okay. So I can't make it  
24 based on dropped calls or anything like that? And

1 signal strength, I think the record that we have  
2 shows signal strength's in the three to five-bar  
3 area or something like that. I think that's what I  
4 recall from the record. Is that a weak signal or  
5 how does it relate to the minus 90 dBm or greater?

6 MR. MAXSON: Right. There's no quick and  
7 easy way to correlate the number of bars on a phone  
8 to signal strength.

9 MR. BARTL: Okay.

10 MR. MAXSON: My understanding of the design  
11 of those devices -- they're consumer electronics  
12 devices -- is that they use a feature that's on the  
13 integrated chip set that they use in the radio. That  
14 puts out a quality indicator that is translated into  
15 basically six states: no bars, and one through five  
16 bars.

17 MR. BARTL: Okay.

18 MR. MAXSON: So it's a simplification, but  
19 it is a quality metric that's coming off the chip  
20 set designed by the manufacturers.

21 MR. BARTL: Right.

22 MR. MAXSON: And I think, you know, we've  
23 talked about this before that if you're looking at  
24 that video, it is certainly something that would at

1 least raise an eyebrow that the number of bars on  
2 that phone, as it was doing the drive route, never  
3 went below half scale.

4 MR. BARTL: And you were able to sort of  
5 repeat that in your test as well.

6 MR. MAXSON: And then in my testing I  
7 repeated it in a different way. First, one of the  
8 things I did was set a particular application on my  
9 phone to read the network signal strength, and it's  
10 the customary measurement of the network signal  
11 strength. It's not the total power.

12 And it was of the LTE network, AT&T's LTE  
13 network, and I reported on a map the locations where  
14 the signal levels were above or below certain  
15 levels, you know, consistently.

16 And then secondarily, I did that drive  
17 loop with a telephone call using the 3G network of  
18 AT&T and maintained a call with good audible quality  
19 throughout the loop. One qualification, and that is  
20 that that was done in January when there were no  
21 leaves on the trees.

22 MR. BARTL: Right.

23 MR. MAXSON: I did say in my report it may  
24 be reassuring to realize that in the case of the

1 measured LTE signal strength received on my  
2 smartphone on that special application, that that  
3 signal strength was so robust that even allowing for  
4 the losses that one might expect due to foliage when  
5 the foliage were to come out, that there was still a  
6 substantial area of what I would expect still to be  
7 a pretty strong signal.

8 MR. BARTL: But that's a bit of an  
9 unknown.

10 MR. MAXSON: But it's an unknown. I mean,  
11 that's one of the things about this is the data you  
12 have is the data you have, and it's like the fog of  
13 war.

14 MR. BARTL: So we have data on received  
15 signal strength. That's the data we have to define  
16 the quality of service.

17 MR. MAXSON: Of the existing AT&T network.

18 MR. BARTL: Yes. Of the existing AT&T  
19 network.

20 MR. MAXSON: You have that signal  
21 strength. The applicant has argued that that data,  
22 because it was not done with a computer hooked up to  
23 a cell phone, is not scientific.

24 MR. BARTL: And we don't have data from

1 the applicant that documents otherwise from what  
2 you --

3 MR. MAXSON: Right. The applicant --

4 MR. BARTL: -- from the record that we  
5 have.

6 MR. MAXSON: The applicant has not  
7 provided any data to rebut. The only rebuttal has  
8 been that that data is not suitable.

9 MR. BARTL: Okay. All right.

10 MR. BOURDON: Jeff had to run to the  
11 bathroom.

12 MR. BUKOWSKI: I have one other question,  
13 Dave. Based on -- I don't know if you can answer  
14 this or not, but based on your interpretation of,  
15 you know, what Roland just talked about, and then  
16 the bylaw, how it defines sort of the significant  
17 gap, I mean in your opinion, do you feel like the  
18 data shows that there is a significant gap?

19 MR. YACOUBY: He won't answer that  
20 question. He's going to say that that's up to us to  
21 interpret.

22 MR. BUKOWSKI: That's why I'm asking him  
23 to answer it.

24 MR. YACOUBY: I'm sorry. I didn't mean to

1 put words in your mouth, but it's --

2 MR. BUKOWSKI: I don't know if you can  
3 answer it.

4 MR. MAXSON: Thank you for that question.

5 I think someone may have asked that in a  
6 previous meeting, and what I recall explaining was  
7 that I try hard not to tread on that territory,  
8 because that is your responsibility as a board; and  
9 I am not at all capable of predicting what a judge  
10 would say were this matter put before a judge; and  
11 ultimately, when you get to terms like "significant  
12 gap in service," which comes from case law, that's  
13 something that you have to weigh the evidence. You  
14 have to weigh the rules. You have to weigh the  
15 testimony, everything, and I -- I would not presume  
16 to tell you that there is or isn't a significant gap  
17 in service here.

18 I have done my best to provide you with  
19 facts, to corroborate facts provided by others, and  
20 give you the information, and hopefully a little bit  
21 of help with the structure of evaluating those facts  
22 in order to make a reasoned decision based on  
23 substantial evidence in the written record.

24 MR. BUKOWSKI: Thanks.

1 MR. SOUSA: Mr. Chairman.

2 CHAIRMAN CLYMER: Okay. Mr. Sousa, do you  
3 want to respond?

4 MR. SOUSA: Yes. Since it's so technical  
5 in nature, I think it's more appropriate that  
6 Mr. Goulet --

7 CHAIRMAN CLYMER: Okay.

8 MR. SOUSA: -- respond to Mr. Maxson's  
9 comments.

10 CHAIRMAN CLYMER: Sure.

11 MR. GOULET: I have a few items. First of  
12 all, the drive test that Isotrope performed, Dave,  
13 can you tell the Board what the time of day was that  
14 you did that drive test.

15 MR. MAXSON: Through the Chair?

16 CHAIRMAN CLYMER: Yes, please.

17 MR. MAXSON: Yeah. It was about 11:00 in  
18 the evening.

19 MR. GOULET: Just the fact that the drive  
20 test was done at 11:00 at night, 11:00 at night is  
21 not typically high capacity usage on the network.  
22 So the fact that he was able to hold a call, the  
23 fact that he was able to listen to music. He did  
24 not measure through-put rates. He did it at 11:00

1 at night, which is not a valid test at all, because  
2 it is probably the lowest usage or one of the lowest  
3 periods of usage on the network. So I kind of take  
4 offense that -- you know, we do the drive test  
5 during peak periods during the day; and then our  
6 data, done with very sophisticated equipment,  
7 multiple devices, scanner data to back up the  
8 wireless devices, all recorded with GIS. We had  
9 lat. and long. for every recording, and that is  
10 going to be compared to a two-mile loop that  
11 Isotrope did at 11:00 at night.

12 And I don't understand how that gives you  
13 any valid information on through-put rates, uplink  
14 and downlink, latency, or anything else.

15 Looking at an app -- wait a minute. You  
16 had the floor. I've got a couple of things I'd like  
17 to address.

18 Another thing was the statement -- he's  
19 telling you that he's giving you all facts. He got  
20 up and made a statement that said, he's been in the  
21 business for 20 years, and on numerous occasions,  
22 carriers have provided switch data to the boards.

23 I think I mentioned earlier I've had many  
24 years of Nynex Mobile now Verizon. I had years at

1 Sprint. I had years at AT&T. I've been doing this  
2 since 1979. In all the hearings that I have been  
3 to, those carriers, AT&T, Verizon, and Sprint, the  
4 only time switch data was provided was in a court  
5 setting or a deposition.

6 CHAIRMAN CLYMER: Can you clarify switch  
7 data.

8 MR. GOULET: Switch data is every single  
9 user on AT&T's network that passes in this area, in  
10 this market, all of the information coming from their  
11 device to the cell site, whatever cell site they're  
12 on and sector and the information coming from that  
13 cell site to that device gets recorded. The only  
14 thing that does not get recorded is basically Q of S,  
15 which you were talking about earlier. That whole  
16 paragraph that you read from the bylaw, bit error  
17 rate, Q of S. That's all GSM. It's all relative to  
18 voice. AT&T doesn't build GSM any more. GSM is  
19 long gone. So that's what that refers to. So I'm  
20 not sure when the bylaw was written.

21 MR. BARTL: Well, that's the framework  
22 under which the Planning Board is authorized by Town  
23 Meeting, who voted this in place, to grant a permit  
24 or not to grant a permit. That's the framework that

1 the Planning Board has to operate under.

2 MR. GOULET: Understood. Understood. But  
3 also the next paragraph in the bylaw talks about  
4 voice and data --

5 MR. BARTL: To the --

6 MR. GOULET: -- when it talks  
7 about -- when it talks about significant gap.

8 No, I just wanted to raise the point. I'm  
9 not contradicting you in any way. I'm just pointing  
10 out the fact that that language that you were  
11 reading and those terms are all only applicable to  
12 voice. They're not applicable to data. Q of S is a  
13 rating that they used to use for voice quality.

14 The other thing -- so in my years of doing  
15 this, and I've been to hundreds of hearings. I've  
16 testified in court. The only time switch data was  
17 delivered that -- for the hearings that I was at was  
18 in a court setting. When the Judge asked for it,  
19 that's fine; but at a public hearing like this  
20 forum, carriers do not offer up switch data because  
21 for that reason, that data could go in the newspaper  
22 the next day.

23 So as far as the drive test that we did,  
24 the drive test data was not flawed. The data itself

1 was not flawed. I said that at the last hearing.

2 Mr. Maxson is correct when he said that  
3 there was -- the information that AT&T gave him  
4 originally, that there was an error there because  
5 they didn't know that a sector was off the air; but  
6 the information that was collected by the devices in  
7 the vehicle is just as if I walk out this building,  
8 and I take sound level readings. It is what it is.  
9 It doesn't matter that somebody wasn't blaring their  
10 radio at the time. We collected the information,  
11 the existing network conditions at the time that we  
12 did the drive test, which was during the day. It  
13 was during a weekday.

14 The other gentleman got up and spoke about  
15 the T-Mobile case and mentioned that the carrier  
16 provided switch data. Again, that was a legal case.  
17 It wasn't -- the carrier didn't provide the switch  
18 data at the town hearing. They provided it at the  
19 request of the judge.

20 MS. QUINN: That was the last meeting.

21 CHAIRMAN CLYMER: I'm sorry.

22 MR. QUINN: I brought that up. That  
23 wasn't the case.

24 CHAIRMAN CLYMER: Well, you were reading

1 from the case which might have been the case law. I  
2 mean, I don't know the case law that said whether it  
3 was presented at the public hearing or not, but if  
4 you want to get up afterwards and speak on that.  
5 Let's let Mr. Goulet -- you can continue.

6 MR. GOULET: But anyway I wanted to  
7 specifically address the drive test. I don't think  
8 it's valid for the Board to compare drive tests  
9 using a phone in a car at 11:00 at night after a  
10 hearing comparing that to the drive test that was  
11 presented and the plots that I presented you which  
12 was a mapping of that GIS drive test data.

13 CHAIRMAN CLYMER: Okay.

14 MR. MAXSON: Thank you.

15 If I may briefly rebut the remarks you  
16 just heard. One can not automatically make the  
17 reference that the bylaw is only referring to GSM.  
18 There are -- to the earlier 2G technology GSM. That  
19 those are examples of the kinds of things that are  
20 measured.

21 MR. BARTL: Okay.

22 MR. MAXSON: And, you know, there are bit  
23 error rates. There are block error rates. There  
24 are packet error rates. There are all kinds of

1 metrics of errors in communication. There are  
2 retries with Internet protocol when the packet  
3 doesn't come through, the receiver says I got a bad  
4 packet. Send it to me again. So there's all kinds  
5 of information available. There's the latency  
6 measurements. That's not in that list, but there  
7 are numerous other metrics. So that does not  
8 dispose of that clause in the bylaw simply because  
9 there are some examples that may not exactly fit the  
10 mold.

11 The second thing is that Mr. Goulet  
12 stressed that the metrics of the drive tests that  
13 his company performs include some of these numerical  
14 characteristics, similar to things we just discussed  
15 in addition to signal strength; and he dismisses the  
16 informal drive test that I did because I didn't  
17 collect that data.

18 I would point out to you that the only  
19 data the applicant submitted in this proceeding with  
20 respect to a drive test was signal strength. So  
21 it's an apples-to-apples comparison. And as I said  
22 last time, there are commercial wireless drive  
23 testing systems --

24 MR. BARTL: So what you're saying --

1 MR. MAXSON: -- that plug into cell  
2 phones, and Mr. Goulet just described one of those  
3 that his company uses as well. So you can get  
4 numbers off of cell phones and put them into a  
5 computer and have them each individually connected  
6 to a set of latitude and longitude; but you're  
7 functionally doing the same thing if you're  
8 observing something and taking notes while you're  
9 observing it. It's not as detailed. It's not as  
10 specific. It's not as precise, but it's still a  
11 systematic, structured way to evaluate a situation.

12 I'm sorry. You were going to ask a  
13 question.

14 MR. BARTL: No. I'm sorry. I interrupted  
15 you.

16 So what you're saying is that the type of  
17 measurement that was presented and documented in the  
18 record by the applicant and by you, the time of day  
19 doesn't make any difference?

20 MR. MAXSON: Thank you for asking about  
21 that as well. I do agree with Mr. Goulet that I was  
22 not stressing the network at a time when other  
23 people might have been using it and have been  
24 stressing the capacity. So what my test at about

1 11:00 at night succeeded in doing and only succeeded  
2 in doing was verifying that there is a substantial  
3 amount of signal strength available on the network,  
4 both the LTE network and the 3G network.

5 MR. YACOUBY: Can I ask a point of  
6 clarification there. That's exactly what I was -- I  
7 mean, we're mixing apples and oranges. Signal  
8 strength has nothing to do with network utilization.  
9 So at 11:00 p.m., that signal strength's going to be  
10 the same as 9:00 a.m., but you might get more  
11 dropped calls at 9:00 a.m. because you've got  
12 network saturation, but your signal strength's not  
13 going to show that.

14 MR. MAXSON: As a practical matter, with a  
15 bunch of minor caveats, that's a correct statement.

16 MR. YACOUBY: My point is they already got  
17 the signal strength there. Mr. Goulet is talking  
18 about network utilization and validating that test,  
19 which is irrelevant, because we're just measuring  
20 signal strength. That's the data. So apples to  
21 apples we're getting into this tit for tat technical  
22 stuff that is clouding what we're talking about.

23 The fact of the matter is there's more  
24 similarities between the data at the end of the day

1 than not, and we were measuring signal strength. We  
2 did not get into packet loss. We did not get into,  
3 you know, network contention, which would have a  
4 significant impact. If you're at 99 percent  
5 capacity on a network, you might not get calls  
6 through. You're going to have all sorts of other  
7 issues going that someone might use to define that  
8 as being a, you know, gap in service, but that's not  
9 what we're talking about.

10 So I think we're getting -- this is why  
11 I'm having the issue. We can be here forever  
12 getting more and more data, and we're not going to  
13 get anything more to help us make a decision in my  
14 opinion. The data we have says here is what is  
15 being defined. I do agree. We have to as a board  
16 say, okay, as long as we're not being arbitrary and  
17 capricious, and I think that's the critical thing as  
18 a board are we applying the bylaw correctly with the  
19 data that we've been provided, to the best of our  
20 knowledge? We're not engineers.

21 And I appreciate what Mr. Maxson said.  
22 That's why I'm trying to cut to the chase, oh, you  
23 have that dBm or this dBm. Yeah, okay. We get lost  
24 in that.

1           And I think you're both competent  
2 engineers. I'm not trying to say you're better or  
3 he's better, but if we cut to the chase, signal  
4 strength is what they measure; and signal strength  
5 per se is irrelevant if you're 11:00 a.m., 1:00 a.m.,  
6 5:00 p.m.

7           Contention and through-put, I'll grant  
8 you, that's a different issue, but we've had no data  
9 presented to us on through-put or contention.

10           MR. BARTL: There was something raised at  
11 the last hearing about capacity concerns on the  
12 tower from Annursnac Hill. That was the only thing  
13 that they speak to that what you're just raising  
14 other than signal strength; is that correct?

15           MR. MAXSON: That's correct --

16           MR. YACOUBY: I think we have --

17           MR. MAXSON: -- and Mr. Yacouby --

18           MR. YACOUBY: Yes.

19           MR. MAXSON: -- Mr. Yacouby was saying  
20 that there is no data to support those assertions,  
21 but those assertions have been put on the record.

22           And to qualify that, there is one piece of  
23 inferential data that is the combination of the  
24 coverage footprint of the Annursnac Hill sector

1 oriented toward the rotary and the state traffic  
2 information that indicates the number of cars per  
3 day that travel around the rotary and from which  
4 they are asking you to infer that their statement is  
5 valid.

6 MR. YACOUBY: You're right. It's  
7 inferential. In terms of the data set, we have  
8 signal, and we have two drive tests: one probably  
9 much more sophisticated; one that's less  
10 sophisticated, but I would contend that does not  
11 invalidate Mr. Maxson's data at all. So there are  
12 two different data sets coming at us slightly  
13 different ways that arrive, I think, at a  
14 fundamentally similar conclusion as far as that is  
15 concerned.

16 CHAIRMAN CLYMER: So, Dave, if you think  
17 about that drive test, I mean how much of that is a  
18 product of the alternative bands that are available  
19 to switch when the 1900's not available. I mean is  
20 that a contributing factor to, in your view, the  
21 results that you got when you did that 11:00 p.m.  
22 drive test?

23 MR. MAXSON: I would assume that it is a  
24 contributing factor; that my method of evaluating

1 the provision of AT&T's service involved a device  
2 that was using the AT&T service, at which point it  
3 would be switched one way or the other to one  
4 frequency band or the other, something I was not  
5 observing or tracking as I was conducting this test.

6 The test that was conducted by the  
7 applicant's consulting engineer and submitted to the  
8 record was simply targeted measurements of the  
9 signal strength of a very specific pair of radio  
10 channels. It was not testing quality of service in  
11 terms of making connections or evaluating the  
12 performance of the network as the old Verizon's  
13 commercials used to say: Can you hear me now? It  
14 was simply measuring targeted radio channels on the  
15 network.

16 MR. SOUSA: Mr. Chairman, I don't think at  
17 any point did we suggest that you shouldn't take  
18 into consideration the phone calls that were made by  
19 Mr. Maxson that night and him submitting that to the  
20 Board or the abutters doing the same thing which  
21 they also submitted to the Board; however, that's  
22 not -- I don't believe Mr. Maxson or any wireless  
23 carrier would design a network simply utilizing a  
24 phone and driving around. In fact, when C Squared

1 suggested that its equipment was very sophisticated,  
2 very expensive, costs thousands of dollars,  
3 Mr. Maxson also stated on the record we have that  
4 same equipment. It's also very expensive, and I  
5 believe he was going to utilize that equipment if,  
6 in fact, he did also a drive test, which he proposed  
7 to do to the Board.

8 And so you have to weigh the evidence.  
9 We're not suggesting that you throw out the phone  
10 calls. Never have I suggested that. However, the  
11 nature of the drive test is that it, in fact, did  
12 test much more than just signal strength. There are  
13 also PN numbers that were discussed at the last  
14 hearing showing where that signal is coming from.  
15 And so the phone call, the only issue that we have  
16 with it is the phone call drive around the  
17 neighborhood doesn't really accurately depict the  
18 problem in our network, including the fact that we  
19 have this sector from Annursnac Hill covering  
20 Route 2 that shouldn't be covering Route 2.

21 We talked about that at the last hearing.  
22 That kind of overloading is not going to be  
23 reflected in the phone call that Mr. Maxson did  
24 around the neighborhood, and so because this is a

1 sort of threefold problem, that's why we did a  
2 sophisticated drive test, and that's why we analyzed  
3 the nature of our network now, what do we want it to  
4 be to fix the current problem, and how do we want to  
5 build a network that's going to be reliable for the  
6 future?

7           And I would ask that you take a look at one  
8 of the most recent cases that talks about, and  
9 Mr. Maxson, I think, rightfully has suggested that  
10 the definition -- or I should say the determination  
11 as to whether or not there is a significant gap is  
12 in your hands as you interpret the bylaw, but most  
13 recently, it's one of the most recent cases that  
14 we've come across. It actually involves AT&T Wireless  
15 as well. It's a US District Court, District Court  
16 in New Hampshire case: New Cingular Wireless PCS  
17 versus City of Manchester. And in there, on page 5,  
18 it specifically says "In finding that a significant  
19 coverage gap exists, the court has considered  
20 factors such as" -- there are a lot of factors you  
21 can consider, but it says "such as the physical size  
22 of the gap." And we talked about the fact that this  
23 physical size of the gap, at least from a  
24 residential standpoint is not significant. It's not

1 really a big area, geographic area, but that's not  
2 the only factor. Route 2 is a pretty big area.  
3 Route 2A's a pretty big area.

4 "The number of users the gap affects;  
5 percentage of unsuccessful calls; the need for  
6 coverage around a heavily traveled and important  
7 route." Very important. Right on point with  
8 respect to this particular gap.

9 "And the carrier's standard for reliable  
10 service, to satisfy customers based upon signal  
11 levels." And so that's another factor that we  
12 talked about.

13 We want to be able to provide reliable  
14 service for all sorts of wireless services, and  
15 those are not just voice. They're data services as  
16 well; otherwise, we wouldn't have been given the  
17 opportunity and the right to purchase the FCC  
18 licenses from the FCC.

19 I think consumers -- don't lose sight of  
20 the fact that consumers are demanding these types of  
21 services. They're not just demanding 3G voice or 2G  
22 voice. They're demanding reliable, seamless networks  
23 for all wireless services, and that's what we're  
24 trying to do here.

1           There was some questions earlier as well  
2 regarding --

3           CHAIRMAN CLYMER: Can I just ask you a  
4 question from what you read --

5           MR. SOUSA: Of course. Yep.

6           CHAIRMAN CLYMER: -- so one of the  
7 criteria you just mentioned was unsuccessful calls.

8           MR. SOUSA: Yep.

9           CHAIRMAN CLYMER: Do we have any data that  
10 supports that there are a large volume of  
11 unsuccessful calls?

12           MR. SOUSA: We did not provide dropped  
13 call data, no; but once again --

14           CHAIRMAN CLYMER: And that is a criteria  
15 in that case?

16           MR. SOUSA: It's one of the criteria.

17           CHAIRMAN CLYMER: One of the criteria.

18           MR. SOUSA: One of the criteria.

19           CHAIRMAN CLYMER: Okay.

20           MR. SOUSA: That's right.

21           CHAIRMAN CLYMER: I just wanted to clarify  
22 that.

23           MR. SOUSA: Yep. Absolutely.

24           However, it's not suggesting that you have

1 to meet all of the criteria.

2 CHAIRMAN CLYMER: Understood.

3 MR. SOUSA: It's just suggesting that  
4 these are all the different factors that a board can  
5 consider in figuring out whether or not there's a  
6 gap in coverage.

7 For example, it's not suggesting that a  
8 significant gap is only when there are an "X" number  
9 of residents that you're trying to reach. Instead,  
10 it's giving a lot of different types of scenarios in  
11 which a significant gap could exist.

12 CHAIRMAN CLYMER: Right. And, again,  
13 though, with Route 2, if there were a lot of  
14 unsuccessful calls on Route 2, that might be a fact  
15 that would suggest that there could be a significant  
16 gap. So, again, it's something that we don't have;  
17 so we don't need to dwell on it, but --

18 MR. SOUSA: But instead we have drive test  
19 data showing those gaps on Route 2 that we submitted,  
20 and we can bring them up again if you'd like.

21 CHAIRMAN CLYMER: Right. Again, but that  
22 goes -- then there's other issues that that brings  
23 into the discussion about, you know, how you look at  
24 AT&T's coverage. Do you look at the 1900 band? Do

1 you look at more widely? I know the argument is  
2 that other bands are going away. They're not going  
3 to cover that, but I think when you address  
4 unsuccessful calls, I do not believe that there's a  
5 way -- there might be -- but I would guess there's  
6 not a way to decide what network or what band is  
7 causing those unsuccessful calls; so, you know, to  
8 some degree, to the extent unsuccessful calls is a  
9 criteria, it would seem to suggest some degree that  
10 it is relevant to look at the entire network and to  
11 see how the entire network performs.

12 MR. SOUSA: And I think Mr. Goulet has  
13 described essentially the allocation of the various  
14 spectrums that AT&T Wireless owns, and we never  
15 suggested that we're just building a 1900 network.  
16 In fact, we talked about all the various allocations  
17 of 700, 800, 1900, 2100, and 2500.

18 And there's a network plan there, and I  
19 think it's a dangerous territory if the Board gets  
20 into the designing allocation of spectrum for a  
21 wireless carrier. I think it's a very dangerous  
22 territory.

23 CHAIRMAN CLYMER: My only point is that  
24 that is a parameter that I would think is

1 independent of the band, unsuccessful calls. Maybe  
2 I'm wrong in that, but I would think it's independent  
3 of the band, but maybe you're going to tell me that  
4 that's not the case.

5 MR. GOULET: It's not the case. Again,  
6 you're talking unsuccessful calls. Unsuccessful  
7 calls is a term that dates back ten years ago.  
8 They're talking about you go to make a call, and you  
9 get the fast busy on your phone, and you can't  
10 connect, and you try it again, and you try it again,  
11 and you try it again.

12 We can't give you that statistic for  
13 AT&T's 4G LTE because we're not talking about calls.  
14 We're talking about data connections. So the levels  
15 that are presented here, AT&T knows from testing,  
16 from experience, from launching, from working with  
17 the infrastructure vendors that they purchased their  
18 equipment from that in order to have reliable  
19 service in a given area, you have to at least meet  
20 this minimum required threshold.

21 So they're designing now -- I can't give  
22 you data for unsuccessful calls for a network that  
23 they're designing to build.

24 CHAIRMAN CLYMER: Right. But it was an

1 issue in this particular case. So someone, somehow  
2 there was a measurement of unsuccessful calls.

3 MR. GOULET: The judge threw it out, and I  
4 knew the case very well because I was in that case,  
5 and the judge happened to throw that term out there  
6 because he was reading from some law, but the  
7 data -- we never gave him data for dropped calls.

8 We gave him data for dominant -- we showed  
9 him plots, just as I've shown you here -- a dominant  
10 server had received signal strength, had RSRP, had  
11 PN plots, and showing what the current conditions  
12 were, what the proposed site would offload. That's  
13 what we gave him.

14 CHAIRMAN CLYMER: Okay. Well, again, I  
15 was just reacting to what Mr. Sousa read.

16 MR. GOULET: No, understood. I just  
17 wanted to make the clarification that there's no  
18 data available for the network that's not being used  
19 yet in a sense. It's just -- it's new. It's  
20 brand-new, and they're not measuring -- they're not  
21 measuring lost calls because we're not talking  
22 voice. We're talking data through-puts.

23 CHAIRMAN CLYMER: Okay. Roland.

24 MR. BARTL: You know, you said something

1 that I'm still hung up on. You said we're not  
2 talking about voice. We're talking about data.

3 MR. GOULET: Correct.

4 MR. BARTL: And, frankly, I'm not sure our  
5 bylaw, the FCC, or Congress is where you are. I  
6 think they're still --

7 MR. YACOUBY: I disagree with that  
8 statement.

9 MR. BARTL: -- I think they are at voice,  
10 and maybe the law and the legal situation is way  
11 behind, but if you are looking at only providing  
12 data and not voice, I'm not sure we're on the same  
13 page. I just don't see it.

14 MR. SOUSA: So, Roland, I didn't bring any  
15 specific case law addressing that specific issue,  
16 but I ask that you defer to your counsel regarding  
17 that because that issue came up in connection with  
18 the last denial. That co-locator on that particular  
19 tower was just a data service provider.

20 MR. BARTL: Right.

21 MR. SOUSA: There was not a --

22 MR. BARTL: And when you're talking about  
23 LTE, that only is data service. We're in the same  
24 territory.

1 MR. SOUSA: No, you're not. The FCC treats  
2 carriers that offer both differently than carriers  
3 who just offer data services.

4 MR. YACOUBY: That's true.

5 MR. BARTL: Okay.

6 MR. SOUSA: I honestly don't have the case  
7 law or the FCC statute or order I should say that  
8 addresses that issue with me because I didn't think  
9 it would come up.

10 MR. BARTL: Right.

11 MR. SOUSA: But your counsel should be  
12 very intimately familiar with that because I know  
13 your counsel looked at it --

14 MR. BARTL: I understand that.

15 MR. SOUSA: -- in connection with the last  
16 decision.

17 MR. BARTL: I understand that part, but  
18 when we talk about significant gap, I'm not sure we  
19 are connecting -- that we're talking about under the  
20 rules that are in place in the legal framework and,  
21 again, I'm not a lawyer, but I am not seeing a  
22 significant gap with respect to data services. I  
23 think the significant gap evaluation is about  
24 person-to-person communication and the ability to

1 conduct that on a wireless network. I'm not sure it  
2 is about streaming of data.

3 CHAIRMAN CLYMER: And --

4 MR. BARTL: And that's why I'm losing it,  
5 and that's where I'm not sure we're talking a  
6 significant -- that's why I'm not convinced.

7 MR. SOUSA: And I would suggest it's  
8 personal wireless services, and that includes both  
9 data and voice.

10 You know, as Mr. Maxson described a couple  
11 of times, the nature of these networks is they  
12 operate so quickly. There's a lot of transfer  
13 instantaneously that happens when a user is on a  
14 telephone or a smartphone or a tablet or something  
15 else. These networks are integral together. They  
16 work together, and there's a lot of switching back  
17 and forth. I would suggest that the services that  
18 are being protected under the Telecommunications Act  
19 are not just voice.

20 I would suggest that we have FCC licenses  
21 to build LTE, broadband, voice networks under our  
22 FCC licenses, and even from a practical, common  
23 sense perspective, the users are demanding those  
24 types of services. We have the right to build the

1 networks to offer those types of services. It would  
2 be nonsensical for our right to build those networks  
3 to not be protected under the Telecommunications Act  
4 of 1996.

5 MR. YACOUBY: A good example right now has  
6 been texting is not voice.

7 CHAIRMAN CLYMER: Speak into the  
8 microphone.

9 MR. YACOUBY: Texting is an example. It's  
10 communication. It's not voice. It's data. But it  
11 has been shown that that's a critical communication,  
12 in fact, a lifeline for a lot of people.

13 So I think -- I agree I think it's an  
14 evolving area, and I do know the FCC says when  
15 they're offering both, you do see them, and the  
16 technology is -- LTE today is primarily data. It's  
17 going to quickly become voice, just like it is voice  
18 over IP, and now data streaming over IP is happening  
19 when that's not subject to over-the-air  
20 regulations --

21 MR. SOUSA: Right.

22 MR. YACOUBY: -- so it's a very dynamic,  
23 moving target.

24 CHAIRMAN CLYMER: Well, I think the bylaw

1 is not dynamic. So I think your point is one --

2 MR. YACOUBY: But the bylaw, I think, is  
3 not -- actually I read that bylaw as being very  
4 dynamic. It's actually fairly specific. It talks  
5 about personal wireless services that I would  
6 contend could be read, in fact, that way. In fact,  
7 I know Bruce was involved in writing it, and that  
8 was the intent, not the case of just voice. So I  
9 think it was designed so --

10 CHAIRMAN CLYMER: I think there's some  
11 semantics though because if you say that the way  
12 that the network is being evaluated is on the basis  
13 solely on something that doesn't deliver voice, then  
14 you're drawing -- it's a gray line between that and  
15 only providing data.

16 MR. YACOUBY: But it's evolving and will  
17 be voice very shortly.

18 CHAIRMAN CLYMER: Right.

19 MR. YACOUBY: So that's my point.

20 MR. SOUSA: And so --

21 CHAIRMAN CLYMER: We don't need to make  
22 that point. I think we have counsel to help us with  
23 that.

24 MR. SOUSA: That's right, Mr. Chairman,

1 and I would defer to that. And you're absolutely  
2 right. Words are important, and definitions are  
3 important. And definitions that are utilized not  
4 only in your bylaw but also utilized in the  
5 Telecommunications Act of 1996 are important. And  
6 that's why the term in the definition of personal  
7 wireless services, it starts off by saying  
8 commercial mobile radio services.

9 And we are a commercial mobile radio  
10 service provider under the Telecommunications Act of  
11 1996. Not every company has that distinction, not  
12 everybody has that right; and, therefore, only those  
13 companies have protections under Section 332 of the  
14 Telecommunications Act of 1996.

15 And so that connection is very, very  
16 important. And that was the distinction between the  
17 previous application two or three years ago, and  
18 that company was not a commercial mobile radio  
19 services provider. AT&T Wireless is.

20 And so once again, I think it's prudent  
21 that you refer to counsel with respect to that  
22 issue. I think it's a good question, but I do think  
23 we're protected under that provision.

24 CHAIRMAN CLYMER: So what I think I'd like

1 to do at this point is to close the public hearing  
2 part of this and to start our deliberations and so  
3 do I have a motion to --

4 MR. YACOUBY: Motion to close the public  
5 hearing on the 5 Craig Road Cell Tower Application.

6 CHAIRMAN CLYMER: Do I have a second?

7 MR. BOURDON: Second.

8 CHAIRMAN CLYMER: All in favor.

9 Okay. All right. So deliberation.

10 MR. YACOUBY: From my perspective, this is  
11 a tough one. Okay. Because I think there  
12 is -- there's technology issues, and we've had  
13 dueling technology going on here; and quite honestly  
14 I think at some points it got personal because it  
15 was like they were impugning the representation --

16 CHAIRMAN CLYMER: Can I just interrupt you  
17 for one second.

18 So, you know, maybe what we can do here is  
19 talk about this, but then basically if there are  
20 things we want counsel -- our counsel to weigh in,  
21 then maybe we identify those, so that we have a  
22 discussion. We identify those things. And then we  
23 can get that because right now we do have a meeting  
24 between now and the decision date. So that would

1 enable us to give some thoughts to identify some  
2 things, and then to make sure that we're getting,  
3 you know, our counsel's view of that.

4 MR. YACOUBY: I was going to say from my  
5 perspective, I think clearly we need to get our  
6 counsel's view on some of these definitions. I  
7 think that is unquestionably -- because I have a  
8 personal opinion, but that doesn't count. And so I  
9 think legally on personal wireless services, the  
10 Telecommunications Act, the definition. I do think  
11 a material difference between the prior applicant  
12 and AT&T is very germane. The other one was, okay.  
13 We're going to be putting up towers and selling  
14 data; hence, we were well within our right saying  
15 get out of here. Get out of here. In this case, I  
16 don't think we're on firm ground to do that. So I  
17 think we need to get legal -- some guidance from  
18 counsel as to where we are, so that when we make a  
19 decision, that we do it on firm ground.

20 My biggest concern on this is we decide  
21 not to do it for whatever reasons, we don't like how  
22 the applicant submitted or what have you, and it  
23 turns out on a legal basis, we don't have any firm  
24 ground.

1           So my biggest concern is, like, right now  
2     if I was to vote right now, I'd probably abstain  
3     because I don't feel good -- I think there's still  
4     some missing data; but from an engineering standpoint,  
5     I think there's valid issues, and now you've got to  
6     think how are you defining gaps in coverage? We  
7     need some legal counsel guidelines on the definitions,  
8     so that we're firm and that we're working with the  
9     same definitions that Mr. Sousa is. That's my  
10    biggest thing.

11           So, you know, I just want to make sure  
12    we're looking at apples and apples when we evaluate  
13    that. Here's the definition we got from legal  
14    counsel. Based on what they're telling us and based  
15    on the data, here's the decision we arrived at. And  
16    that's kind of the missing piece, to get that  
17    objective data, so it's rooted in that and in the  
18    bylaw.

19           And the other thing, Roland, is to get  
20    some brief from our legal counsel on how tightly we  
21    should interpret the bylaw; i.e., do we look at it  
22    in the loose constructionist or strict constructionist  
23    definition because if you're right the way you were  
24    looking at it -- my guess is legal counsel will say,

1 no, you can't narrow it down to just voice in this  
2 day and age. I'd like to find out if that's the  
3 case or not to see if where you were coming from is  
4 out. So that's the other piece that I would like  
5 some guidance on. So we can say okay. That's the  
6 guidance. That's what the bylaw says; hence, here's  
7 where we are. So I think that would be very  
8 helpful.

9 CHAIRMAN CLYMER: Okay. Roland, here we  
10 can share.

11 MR. BOURDON: I don't really have any  
12 comments at this point. I just think that we need  
13 to determine is it a significant gap and basically  
14 to define what significant is. And I think we do  
15 have to take into consideration, Acton 2020, the  
16 same vistas, and impact to the neighbors, the  
17 residents that are on that area.

18 CHAIRMAN CLYMER: Well, are you saying  
19 those are factors or part of the determination of  
20 whether there's a significant gap?

21 MR. BOURDON: No, I think that we have to  
22 take that into consideration when we're going  
23 through the process.

24 CHAIRMAN CLYMER: Okay.

1 MR. BUKOWSKI: Yeah, I just go back to the  
2 capacity thing, and I understand if I'm an AT&T  
3 customer, I want sustainable, continuous service.  
4 And, I mean, personally I feel like data is part of  
5 the, you know, wireless service at this point. But  
6 it's just -- you know, it's defining what that  
7 significant gap is.

8 CHAIRMAN CLYMER: Derrick.

9 MR. CHIN: I'm not convinced that there's  
10 a gap.

11 CHAIRMAN CLYMER: I think my opinion is I  
12 think there is a gap. I'm not convinced that  
13 there's a significant gap.

14 I do think that there are some other  
15 things that, you know -- there are some other issues  
16 that I feel like it would be good to understand. I  
17 do think that we do have the models, which I am not  
18 discounting whatsoever. I think that those  
19 are -- they served a purpose. They certainly show  
20 in much greater detail than a phone would show where  
21 the gaps are.

22 I do think that despite, you know, your  
23 efforts many, many times to explain the fact that  
24 we're not looking at all of the bands, I still have

1 a problem with that because I think that that does  
2 complete calls. It does allow for alternatives when  
3 the data -- the data needs are sort of sucking the  
4 capacity out of the 1900 megahertz when the 1900 is  
5 not available. I do think that, you know, that is  
6 an issue, and I find it difficult to totally dismiss  
7 that on the sense that there is a capacity issue, so  
8 that is not going to be utilized; or if it is still  
9 going to be utilized, and it's eventually going to  
10 go away, and it's not going to be somehow replaced.  
11 And so I do have a problem with that, and I do think  
12 that, you know, that's part of proving that there is  
13 a significant gap, and I, you know -- I know there's  
14 not a significant gap at least looking at the number  
15 of heads that are affected in the area.

16 I think the big issue is Route 2, and, you  
17 know, from experience, I would like to know how  
18 many -- some of that additional data on Route 2 to  
19 know that people can't complete calls on Route 2;  
20 that there's dropped calls on Route 2. Without  
21 that, I don't see that there's evidence that there's  
22 a significant gap.

23 MR. YACOUBY: What I want to add. I think  
24 what I'm wrestling with is significant gap versus

1 network performance. We're kind of mixing the two,  
2 and what's happening with networks now is network  
3 performance is the issue, and I think there's a gap.  
4 And this would be helpful to get some guidance from  
5 legal counsel is how do we correlate -- significant  
6 gap correlates to what we really heard from the  
7 applicant is yes, gap, but it affects network  
8 performance and through-put and utilization. So in  
9 your experience -- it's not even dropped calls -- it's  
10 I'm getting choppy, or I'm all of a sudden not  
11 getting the through-put that I need. So how do we  
12 correlate that to what is defined as a significant  
13 gap?

14 So I guess it's the mixing of the  
15 definition of terms that I'm struggling with because  
16 I totally agree with what you're saying, Jeff, and  
17 I think there is a gap. Now, how do we define  
18 significant in this new world?

19 And I do want to add I agree with Roland  
20 about the 2020, and I think that becomes an issue of  
21 design. So I think that's a conundrum with wireless  
22 in general. It is going to become telephone  
23 pole-like in the future.

24 CHAIRMAN CLYMER: So in the interest of

1 making sure that we're making best use of our time  
2 and giving Roland and Kristen some guidance as far  
3 as where our thought process is, maybe the specifics  
4 of, you know, what we think we need to make a final  
5 decision, you know, what do we want to provide?

6 MR. YACOUBY: I think we need some guidance  
7 from legal counsel on definitions, because I think  
8 that's really -- if we fast forward, I guess there  
9 has been, and I'm not saying there's threatening,  
10 but they're citing case law. Well, that means that  
11 an applicant, if they feel that they didn't get a  
12 decision that was fair, they're going to go to  
13 court. It's not a threat. We should expect that,  
14 and we should expect if that happens, that we're on  
15 firm ground; hence, we need some legal guidance on  
16 the definitions. That's my big thing right now. So  
17 that we're talking apples to apples, and we have a  
18 discussion it's not because of how I feel or how  
19 Derrick feels. It's within the construct of our  
20 bylaw and the guidance we've got from legal counsel  
21 in terms of defining the terms.

22 CHAIRMAN CLYMER: I mean, I don't think  
23 legal counsel is going to tell us whether there's  
24 significant gap. I mean that's for us to decide,

1 so --

2 MR. YACOUBY: No. No. Wireless service,  
3 the voice, I think things like, you know, under the  
4 Telecommunications Act, is what Mr. Sousa told us,  
5 in fact, correct that AT&T has protections because  
6 they are this kind of class carrier. That's a  
7 fairly important assertion. I'm not doubting you,  
8 but I'd like our legal counsel to tell us yes, that  
9 is the case. That's a material difference between  
10 the last applicant and this applicant; that we were  
11 on firm grounds denying before, but we may not now  
12 because of the nature of the carrier. I would like  
13 to know that as a board.

14 MR. BARTL: I can tell you that our  
15 counsel confirms that particular statement.

16 MR. YACOUBY: Right. Yes. And then the  
17 second thing is --

18 MR. BARTL: I think the question comes  
19 down to how do you define a significant gap? And  
20 that's different from whether the carrier is an  
21 eligible carrier under the Telecommunications Act or  
22 not.

23 MR. YACOUBY: And the third thing I would  
24 like to get some guidance on our bylaw in terms of

1 our bylaw, so how strict are the definitions? I  
2 know you have been coming on well, voice, voice,  
3 voice. Do we have a latitude under our bylaw to  
4 consider data, yes or no?

5 In other words, if we made a decision and  
6 told the applicant we don't care about data, and our  
7 bylaw is primarily on voice, are we on firm ground  
8 or not, or is that written general enough that no,  
9 it would have an umbrella that would include voice  
10 and data? Because that's been a fairly significant  
11 issue that I think on a technical level, we've  
12 gotten off on, but I think the two are so intertwined,  
13 they have to be considered because it's data only  
14 today, but it's going to be voice and data tomorrow.

15 MR. BARTL: I got that. And I got is it a  
16 significant gap or not, but then we're already -- so  
17 I got this about the tight interpretation, the loose  
18 interpretation. I got the -- I don't have a mic.,  
19 but I think I got it down here what you asked. Are  
20 we talking about voice only when determining a  
21 significant gap or data too? And how are the two  
22 related? What about the different bands? Can we  
23 consider different bands or only one? Is that  
24 appropriate? How do we define that significant gap?

1 Is it over a number of different frequencies or is  
2 it just on one? How watertight do we interpret the  
3 bylaw in terms of its definitions?

4 Anything else?

5 MR. YACOUBY: The confirmation that  
6 Mr. Sousa stated about the protections, making sure  
7 we get a confirmation of the protections under the  
8 Telecommunications Act as Mr. Sousa asserted.

9 MR. BARTL: I can ask that again, but I  
10 know we got that confirmation.

11 MR. YACOUBY: Okay.

12 MR. BARTL: AT&T is an eligible provider  
13 of personal wireless services under the  
14 Telecommunications Act, and the commingling is part  
15 of that --

16 MR. YACOUBY: And the prior applicant does  
17 not --

18 MR. BARTL: -- as long as they provide  
19 voice.

20 MR. YACOUBY: Right. But the prior  
21 applicant did not.

22 MR. BARTL: The prior applicant which was  
23 voice -- what was that called?

24 MR. SOUSA: Clearwire.

1 MR. BARTL: -- Clearwire did not, and that  
2 still stands. That's still the same. Nothing has  
3 changed on that. That answer I'm 100 percent. That  
4 is true.

5 MR. YACOUBY: Okay.

6 CHAIRMAN CLYMER: By now I should know the  
7 answer to this question, but on the 1900 megahertz,  
8 does voice get carried on that in any way, shape, or  
9 form under LTE, 3G, anything? So under 3G voice  
10 goes over 1900?

11 MR. MAXSON: Point of order. Just a  
12 question about whether we're taking testimony or  
13 clarifying?

14 CHAIRMAN CLYMER: Oh, I'm sorry.

15 MR. BARTL: The public hearing is closed.

16 MR. SOUSA: We closed the public hearing.

17 CHAIRMAN CLYMER: Okay. I apologize. I  
18 thought we had talked about that before we could  
19 still -- you're right.

20 MR. BARTL: The public hearing is closed.

21 CHAIRMAN CLYMER: Okay. I apologize. I  
22 should know that.

23 MR. BARTL: But I think you could --

24 CHAIRMAN CLYMER: I think what we

1 should -- so I guess the answer --

2 MR. BARTL: I think as part of your  
3 deliberation, you could ask that question still to  
4 your counsel, the Town's counsel --

5 MR. YACOUBY: A point of clarification.

6 MR. BARTL: -- and to your advisor,  
7 technical advisor to help you with your decision.

8 MR. YACOUBY: I mean that's what it is is  
9 all those bands are used for everything.

10 CHAIRMAN CLYMER: Right.

11 MR. YACOUBY: Because they're being passed  
12 back and forth. It's just they have different  
13 footprints. So I could actually answer that  
14 question.

15 MR. BARTL: So you can't take new evidence,  
16 but I think you're asking for a clarification of  
17 evidence you think has already been provided. You  
18 just don't remember for sure.

19 MR. YACOUBY: Right. Right.

20 CHAIRMAN CLYMER: All right. Well, that's  
21 fine. I think I got the answer I needed. So thank  
22 you.

23 Is there any other? So, Roland, just a  
24 procedural thing, we do have a meeting on the 15th;

1 right?

2 MR. BARTL: There is a meeting not -- yeah,  
3 there's a meeting -- a room scheduled and a meeting  
4 scheduled for April 15th, which is the last meeting  
5 before the decision is due.

6 So, you know, you might have to call an  
7 extra meeting to get this, and that's a technical  
8 question I have or an administrative question. We  
9 have one member of the Board today who's not here  
10 who would remain eligible to be in the voting group  
11 quorum if he gets a chance to read the transcript  
12 before he has to make a decision. So when do you  
13 think the transcript would be available?

14 THE COURT REPORTER: Ten business days is  
15 the normal turnaround.

16 MR. BARTL: Ten business days. So that  
17 would take us just to a little bit before the 15th.  
18 Okay.

19 Are there any other questions for counsel?

20 CHAIRMAN CLYMER: Ten business days  
21 probably takes us right to it; right?

22 MR. BARTL: Well, today is the 1st of  
23 April.

24 CHAIRMAN CLYMER: Ten business days would

1 take us right to it.

2 MR. BARTL: Yes, business days is not the  
3 weekend, so --

4 CHAIRMAN CLYMER: You may have to push  
5 that --

6 MR. BARTL: Can we get it a little bit  
7 sooner?

8 THE COURT REPORTER: I can see what I can  
9 do.

10 MR. BARTL: That would be nice to get that  
11 other member up to speed so he could participate in  
12 the deliberations with the knowledge.

13 THE COURT REPORTER: Tell me what you're  
14 looking for.

15 MR. BARTL: We normally try to provide  
16 board members at the latest on Friday, preferably  
17 Thursday before the Planning Board's meeting.

18 We have Tuesday, so Friday before if we  
19 can get it into the digital package over the  
20 weekend, that would be good.

21 THE COURT REPORTER: Do you happen to have  
22 a date on that?

23 MR. BARTL: That would be Friday, the  
24 12th. That would be great.

1 MR. SOUSA: Friday, the 11th.

2 MR. BARTL: It's the 11th?

3 MR. SOUSA: The 11th.

4 MR. YACOUBY: Friday, the 11th.

5 MR. BARTL: Okay. I'm sorry.

6 MR. SOUSA: That's okay.

7 MR. BARTL: And I know you're going to  
8 try. You're not promising. I understand that.

9 Thank you.

10 CHAIRMAN CLYMER: So do you have what you  
11 need, Roland?

12 MR. BARTL: Well, I have some questions  
13 for counsel.

14 CHAIRMAN CLYMER: Uh-huh.

15 MR. BARTL: I'm wondering if there are any  
16 more. I am wondering if -- do you want as a Board  
17 the opportunity to ask back and forth questions with  
18 counsel? I mean, I can -- it's going to cost, but  
19 is there -- do you see value in having counsel come  
20 here and engage in the deliberation with the Board  
21 to help out with those questions?

22 MR. CHIN: Yes.

23 CHAIRMAN CLYMER: Given our time frame, I  
24 think the answer's yes because I think that if we

1 have a follow-up question, and then we have  
2 to -- it's just going to be too hard. It is  
3 possible that we'll have a follow-up question that  
4 she can't answer then, but --

5 MR. YACOUBY: Right.

6 CHAIRMAN CLYMER: -- I think it's --

7 MR. BARTL: If I can give her a list, as  
8 comprehensive a list of questions ahead of time, so  
9 she can come -- I mean, she's somewhat aware of  
10 where we are here, but if I could give her a list of  
11 the questions ahead of time, she could get her hands  
12 around this a little better and come somewhat  
13 prepared, hopefully prepared to answer all of the  
14 questions as well.

15 MR. YACOUBY: I think that would be very  
16 useful, to have some give and take.

17 MR. BARTL: Would you like Dave Maxson to  
18 be available also?

19 CHAIRMAN CLYMER: Probably.

20 MR. BARTL: I'm asking because there is  
21 that back and forth between legal and technical, you  
22 know.

23 MR. BOURDON: I think that would be a  
24 benefit.

1           CHAIRMAN CLYMER: I think that would be a  
2 good idea.

3           MR. YACOUBY: If we could have some  
4 clarification of some of the technical issues, so  
5 that we're on firm ground. It would be helpful to  
6 have David kick me under the table if I misspoke  
7 because it's the suppositions that I want to make  
8 sure that we're on firm ground.

9           CHAIRMAN CLYMER: And, again, we want to  
10 make sure that Mike is going to be able to  
11 participate; so we should confirm that he -- I'll  
12 shoot him a note confirming that he will be able, if  
13 we can get that on Friday, that he'll be able to  
14 read that before the meeting.

15           MR. BARTL: Right. Right. Okay.  
16 Assuming that he can get that on Friday.

17           CHAIRMAN CLYMER: Right. Right.

18           MR. BARTL: Is there -- and this is  
19 playing the what if scenarios. If for some reason,  
20 we can't get this -- maybe because counsel or Dave  
21 Maxson is not available on the 14th, and I don't  
22 know or maybe because the transcript for some reason  
23 can't get done in time like to review --

24           CHAIRMAN CLYMER: Right.

1 MR. BARTL: -- our deadline for the  
2 decision is when? And I'm not suggesting we put it  
3 off or anything like that. I'm trying to --

4 CHAIRMAN CLYMER: I think it's April 30th.

5 MR. SOUSA: Correct.

6 MR. BARTL: April 30th. Okay. So that  
7 would -- how does it look with your schedule to put  
8 an extra meeting in just for this purpose, let's  
9 say, on the 22nd because --

10 CHAIRMAN CLYMER: I could do that.

11 MR. BARTL: -- because if you deliberate  
12 on the 15th, then we still don't have a decision to  
13 vote on.

14 MR. YACOUBY: That's right.

15 CHAIRMAN CLYMER: Right. Well, we do have  
16 a meeting on the 29th. Right?

17 MR. CHIN: No.

18 MR. BARTL: It's not listed.

19 CHAIRMAN CLYMER: No, we don't. No,  
20 you're right. It's not. Because we're meeting on  
21 the 1st. There's only two per month.

22 MR. BARTL: Right. You could have another  
23 meeting on the 29th if we had to. So I'm looking  
24 at you -- look at your calendars, and maybe block

1 that off for in case you need it, so that we can  
2 actually get this done.

3 MR. YACOUBY: I know there's a week during  
4 the month that I am going to be out. I just don't  
5 know what week it's going to be yet.

6 CHAIRMAN CLYMER: It could be the 15th.

7 MR. YACOUBY: I don't know what -- it  
8 won't be the 15th.

9 CHAIRMAN CLYMER: Okay.

10 MR. YACOUBY: It's probably later in the  
11 month I know I have to be in Vermont for a week  
12 work-wise.

13 CHAIRMAN CLYMER: Okay.

14 MR. BARTL: Okay. If you could take a  
15 look and see how that might play out because it  
16 seems to be important.

17 CHAIRMAN CLYMER: Okay. So you guys are  
18 pretty open on those dates?

19 MR. CHIN: Okay.

20 MR. BUKOWSKI: Yeah.

21 CHAIRMAN CLYMER: I think generally I  
22 think the only concern is Ray that one week, but  
23 other than that. And I guess if we have a  
24 flexibility to do either of the two weeks, then we

should be okay, depending on when the minutes are done.

MR. BARTL: Right. Right. And you don't have to meet necessarily on a Tuesday. If it has to be, it can be any time.

CHAIRMAN CLYMER: Sure.

MR. BARTL: Just post it.

CHAIRMAN CLYMER: Right. Okay. So I think that's okay.

MR. BOURDON: I'll make a motion.

CHAIRMAN CLYMER: You know, the only other thing is we can deal with this and the other things next meeting.

MR. YACOUBY: Mr. Chairman, motion to adjourn.

MR. BOURDON: Second.

CHAIRMAN CLYMER: All in favor?

Opposed?

MR. BOURDON: Good night.

CHAIRMAN CLYMER: Good night.

(Hearing concluded at 10:45 p.m.)

C E R T I F I C A T E

I, Julie Thomson Riley, Registered  
Diplomate Reporter and Certified Realtime Reporter,  
do hereby certify that the foregoing transcript is a  
true and accurate transcription of my stenographic  
notes, taken on Tuesday, April 1, 2014, to the best  
of my knowledge, skill, and ability.

Julie Thomson Riley, RDR, CRR