

1 TOWNSHIP OF CHATHAM  
2 BOARD OF ADJUSTMENT

3 ----- :  
4 IN THE MATTER OF: :  
5 : TRANSCRIPT  
6 CALENDAR BOA 16-62-52 : OF  
7 T-MOBILE NORTHEAST, LLC : PROCEEDINGS  
8 PSE&G TOWER, SUNSET DRIVE :  
9 BLOCK: 62, LOT: 52 :  
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Wednesday, March 9, 2016  
Municipal Building  
58 Meyersville Road  
Chatham, New Jersey 07928  
Commencing at 7:37 p.m.

BOARD MEMBERS PRESENT:

- 11 TONY VIVONA, Chairman
- 12 JON WESTON, Vice Chairman
- 13 TINA ROMANO
- 14 RICK WILLIAMS
- 15 GREGORY BORSINGER
- 16 WILLIAM STYPLE
- 17 DENNIS NEWMAN
- 18 JOHN HURRING, JR., Alternate 1
- 19 MICHAEL HYLAND, Alternate 2

ALSO PRESENT:

- 20 KALI TSIMBOUKIS, Board Secretary
- 21 JOHN K. RUSCHKE, P.E., Board Engineer
- 22 ROBERT A. MICHAELS, P.P., Board Planner
- 23 LEON HREBIEN, Ph.D., Board RF Expert

24 MICHELE QUICK  
25 CERTIFIED COURT REPORTER

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7 BY: GREGORY D. MEESE, ESQ.  
Counsel for the Applicant  
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1 CHAIRMAN VIVONA: Our first hearing,  
2 Calendar BOA 1662-52, T-Mobile Northeast, LLC, PSE&G  
3 Tower, Sunset Drive, Block 62, Lot 52.

4 MR. MEESE: Good evening, Mr.  
5 Chairman, members of the Board, Greg Meese, attorney  
6 for the applicant, T-Mobile Northeast, LLC.

7 MR. HYLAND: Tony, you want me to read  
8 the site visit?

9 CHAIRMAN VIVONA: Yeah, before we  
10 start, we'll read the site visit and put it into the  
11 record.

12 MR. HYLAND: Site Visit Report. Date  
13 of the visit: March 5, 2016, 10:30 a.m. Address:  
14 Sunset Drive; Lot 52, Block 62; PSE&G Tower.  
15 Attendees: Mr. Vivona, Board Chair; Mr. Williams,  
16 Board Member; Mr. Styple, Board Member; Mr.  
17 Borsinger, Board Member; and Mr. Newman, Board  
18 Member; and Mr. Hyland, Board Member; Mr. Hurring,  
19 Board member; Mr. Shaw, Board Attorney; Mr. Pazden,  
20 Contractor for T-Mobile, and Mr. Meese, Attorney for  
21 T-Mobile.

22 Variance Requests:  
23 \* Use variance for installation of  
24 proposed cellular telecommunications antennae in the  
25 R-1A Residence District (pre-existing antennae

1 I N D E X

<u>WITNESSES</u>	<u>SWORN</u>
FRANK PAZDEN	9
JOSEPH MENIO	48
DANIEL COLLINS	63
CHRISTOPHER NEVILL	79

8 EXHIBITS MARKED INTO EVIDENCE

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>PAGE NO.</u>
A-10	Revised Compound Layout	16
A-11	Site Plan showing a general overview of the proposed site	50
	(There is no Exhibit A-12.)	
A-13	Aerial photograph of the subject site and surrounding area	83
A-14	Photo board with two photographs which depict existing and proposed conditions	83
A-15	Photo board with two photographs which depict existing and proposed conditions	83
A-16	Photo board with two photographs which depict existing and proposed conditions	83
A-17	Photo board with two photographs which depict existing and proposed conditions	83

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1 approximately 115 feet above grade, top of proposed  
2 antennae approximately 138.3 feet above grade).

3 \* Maximum Width of Panel Antennae; 12  
4 inches allowed, 13 inches proposed, and  
5 \* Minimum Height of Fence, (stockade  
6 fence around equipment shelter); 6 feet allowed, 7  
7 feet proposed.

8 The property is located in the PSE&G  
9 right-of-way that runs up the hill and crosses  
10 Sunset Drive. The nearest homes are at the  
11 cul-de-sac at Nicholson Drive. Deep brush separates  
12 the homes from the site of the new PSE&G monopole.

13 The applicant is seeking permission to  
14 relocate its antennae at this site following the  
15 replacement of the "old" PSE&G poles. It is  
16 expected that the temporary tower near River Road  
17 will be replaced by this installation.

18 Notable During the Visit:  
19 \* There is a host of metal garbage that  
20 has been left behind at the site. It was suggested  
21 that the garbage was from Verizon. This needs to be  
22 addressed.

23 \* Because of dense vegetation, it did  
24 not appear as though any of the neighboring homes  
25 were going to be drastically impacted.

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1                   \* The Board learned that PSE&G does not  
2 like antennae to be placed between the three rows of  
3 conductors. Instead, antennae can be placed either  
4 above or below the top ground wire.  
5                   \* Therefore, any secondary -- any  
6 second carrier that would collocate to this site  
7 would go above the ground wire with a pole extender.  
8                   \* This site's not scheduled for a  
9 generator.  
10                  \* It was discussed whether it would be  
11 beneficial to change the retaining wall placement,  
12 and  
13                  \* An alternative to the shed was  
14 discussed that would involve 7-foot fencing with  
15 only equipment cabinets inside. No air-conditioning  
16 would be needed and the cabinets would only require  
17 cooling fans.  
18                  Respectfully Submitted, Michael Hyland,  
19 Board Member.  
20                  CHAIRMAN VIVONA: Okay, thank you.  
21                  Okay, Mr. Meese.  
22                  MR. MEESE: Thank you.  
23                  As just noted, this is a replacement  
24 site for a site that this Board approved back in  
25 1998 that was on a PSE&G tower that PSE&G replaced a

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1 few years ago. At that time, T-Mobile was ordered  
2 off the tower and has constructed temporary  
3 facilities to fill the gap that was left from this  
4 facility that was on air. The two temporary sites  
5 that were constructed to fill this gap was one here  
6 at the municipal building and the second is at a  
7 public park, Esternay Park, and the DEP Green Acres  
8 program has ordered T-Mobile to be off the park by  
9 the end of June of this year. That puts us at a  
10 real time-frame crisis because in order to do that,  
11 we need to get this Board's approval, we need to  
12 obtain a building permit, we need to request a power  
13 outage from PSE&G, PSE&G needs to request a power  
14 outage from national grid, their power outage has to  
15 be scheduled, the work has to then be completed so  
16 we can get off the air.  
17                  So what we're going to do tonight, we  
18 have our witnesses to review the existing site  
19 conditions, the proposed conditions and why the  
20 relief should be granted. This is a little bit  
21 unusual in that we do not believe a new D variance  
22 is required and I think -- now I think your attorney  
23 agrees that a use variance is not required because  
24 the use variance was already granted by this Board,  
25 and under court precedent, once a variance is

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1 granted, it runs with the land, and with respect to  
2 the use itself, the Board should be looking at the  
3 negative criteria only, whether or not the change  
4 from this facility is such that it would cause a  
5 substantial detriment. Also interestingly enough,  
6 the Board should take note that the zoning code was  
7 changed. Originally, it was a use variance and now  
8 it's a conditional use, so the Township has, I  
9 think, seen that these kind of electric transmission  
10 towers are well suited for this kind of  
11 installation.  
12                  Here we have a 141-foot-tall monopole  
13 recently constructed by PSE&G. T-Mobile's proposing  
14 six antennas at the centerline of 138.3 feet, the  
15 antennas are not proposed to exceed the height of  
16 the pole. As proposed, the equipment was proposed  
17 to be located within an equipment shelter at the  
18 base of the pole, 10 feet by 20 feet. As noted by  
19 Mr. Hyland, during the site visit, it was thought  
20 that perhaps outdoor cabinets surrounded by a fence  
21 may be a preferred option and Mr. Pazden does have  
22 an exhibit to show the Board the cabinets that would  
23 be placed on a concrete pad surrounded by a fence to  
24 offer that as an option. Frankly, we will do either  
25 one. I think they have pluses and minuses and we'll

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1 leave that to the Board.  
2                  There is a variance with respect to the  
3 width of the panel antenna. The code limits width  
4 to 12 inches and we have 13 inches, so we have an  
5 extra inch on the width of the antenna. As  
6 indicated in our summary attached to the  
7 application, we do believe that the type of antenna  
8 and the choice of antenna is preempted by the FCC.  
9 Notwithstanding, we will have Mr. Pazden review that  
10 and have the planner, Mr. Nevill, review the fact  
11 there will be no detriment from granting that  
12 relief.  
13                  So with that, what I'd like to do is  
14 call Mr. Pazden. Mr. Pazden is the site engineer  
15 that prepared the plans, he was on site on Saturday  
16 to review that with the Board, and we'd like to have  
17 him come up and be sworn in.  
18 F R A N K P A Z D E N, P. E., Maser Consulting,  
19 400 Valley Road, Suite 304, Mount Arlington, New  
20 Jersey 07856, is sworn by the Board Chairman.  
21                  CHAIRMAN VIVONA: Please state your  
22 name and spell it for the record and give us your  
23 qualifications.  
24                  MR. PAZDEN: It's Frank Pazden,  
25 P-A-Z-D-E-N. I'm with Maser Consulting. I'm a

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1 licensed Professional Engineer in the State of New  
2 Jersey, prepared the site plans that are for this  
3 application. I have over 18 years experience in the  
4 field of telecommunications and site civil design as  
5 well as structural design, I've been accepted  
6 throughout the state as an expert for testimony  
7 similar on designs like these, closest around here  
8 was Chatham borough recently on a PSE&G tower just  
9 like this.

10 CHAIRMAN VIVONA: Okay. Thank you.  
11 MR. MEESE: I would offer Mr. Pazden  
12 as an expert in the field of civil engineering.  
13 CHAIRMAN VIVONA: Very good.  
14 MR. PAZDEN: Thank you.  
15 Let's start with what we submitted,  
16 right?  
17 MR. MEESE: Yeah.  
18 MR. PAZDEN: And then we'll talk about  
19 that.  
20 MR. MEESE: Yeah, just start, Mr.  
21 Pazden, just by orienting the Board to the location  
22 of the facility and the nature of the right-of-way.  
23 MR. PAZDEN: Yes, so what I'm  
24 referring to, these are the plans that were  
25 submitted, this is Sheet Z-1, which has a revision

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1 date of February 12, 2015. This shows the site plan  
2 which shows the 150-foot-wide right-of-way that runs  
3 north to south. To the west side of the right-of-  
4 way is a 20-foot-wide JCP&L easement, and to orient  
5 you to, the north end of this property is where  
6 Sunset Drive is running and then, as you're aware as  
7 we met out there on Saturday, it slopes uphill to  
8 the location where our pole is. The pole is set  
9 back a little over 500 feet to the south of Sunset  
10 Drive, basically located in the center of that  
11 right-of-way. This location of where the PSE&G pole  
12 is now is approximately 60 feet to the north of  
13 where the old PSE&G lattice tower was and on that  
14 existing lattice tower is where T-Mobile had their  
15 former installation. So what we have proposed is to  
16 install a compound directly behind the PSE&G pole.  
17 Access to this compound will come off of Sunset  
18 Drive. There's an existing, basically, grass and  
19 gravel access drive that goes up the slope now. It  
20 does have a gravel base beneath it that, after PSE&G  
21 did their construction, they removed off the top  
22 surface but they installed some small swale berms  
23 along the way to control any erosion and that's --  
24 we met with the right-of-way group and that's the  
25 access that will remain for them to continue to

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1 service their tower that T-Mobile would be able to  
2 utilize as well.

3 The utilities would come from a utility  
4 pole. The only thing that we're proposing here is  
5 an electric and telephone service. There's an  
6 existing utility pole that's actually closer to  
7 Nichols -- or, I'm sorry, Nicholson Drive. That  
8 pole is the same utility pole that was utilized for  
9 the previous installation, so it would be  
10 underground conduits from there routed to the  
11 compound.

12 DIRECT EXAMINATION BY MR. MEESE:  
13 Q. Mr. Pazden, just for the record, the  
14 exhibit you were just referring to, that was part of  
15 the set of plans submitted to the Board?  
16 A. Yes.  
17 Q. And that wasn't changed in any way?  
18 A. That's correct, that's the same.  
19 MR. MEESE: Given that fact, I don't  
20 think I have to mark that separately, correct?  
21 MR. SHAW: No.  
22 A. So just to show you, the enlarged view  
23 on Sheet Z-3 has the enlarged view of the compound  
24 plan. Now, as was submitted, we were trying to  
25 match what the former T-Mobile installation had,

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1 **which was a small shed underneath the footprint of**  
2 **the lattice tower of the previous installation so we**  
3 **had proposed a 10-foot by 20-foot shelter. It would**  
4 **contain basically the outdoor equipment cabinets of**  
5 **the T-Mobile installation. The sole purpose of the**  
6 **shelter was really aesthetics based on trying to**  
7 **match what was previously done. As we discussed on**  
8 **Saturday out in the field, their typical**  
9 **installation is actually the use of just the outdoor**  
10 **cabinets without the building, so when we don't have**  
11 **the building, we can kind of compress things and**  
12 **make it a little bit smaller and I'll show that**  
13 **exhibit in a moment. What's currently proposed on**  
14 **the application is an 18-foot-by-31-foot fenced-in**  
15 **compound. That had, to the north end of the**  
16 **compound, we had proposed a modular block retaining**  
17 **wall that got to the height of two-and-a-half feet**  
18 **on the down hillside and the reason for that was**  
19 **because of the slope of the property to kind of**  
20 **tabletop it off to put this shed in place. Also, at**  
21 **the field visit on Saturday, we talked about**  
22 **alternates to kind of reverse that that we could**  
23 **either cut into the grade and try and make it so**  
24 **that it's not raising it up out of the ground, which**  
25 **we're able to do that as well, which I have on the**

1 **alternate that I'll show in a moment.**  
 2 **So from the compound, we have an**  
 3 **overhead cable bridge that would extend to the pole.**  
 4 **The only thing that runs up the pole are the antenna**  
 5 **cables. There are 24 proposed, 12 would run up each**  
 6 **of two faces on the pole, then you could see running**  
 7 **up the side of the pole would go to the equipment**  
 8 **platform. There are a number of arms on the tower.**  
 9 **The lower three arms are where the conductors are**  
 10 **supported from. You can't mount anything on the**  
 11 **pole faces within those zones because of the**  
 12 **clearances that are required from the actual**  
 13 **conductors, so the areas that PSE&G allows us to**  
 14 **mount is between the top arm -- I'm sorry, the**  
 15 **second from the top is the top conductor and the**  
 16 **very top arm is the shield wire there, ground wires.**  
 17 **So we're allowed to mount within that zone and then**  
 18 **a future collocator, if they came along, they would**  
 19 **have to do a small extension, as you noted, to mount**  
 20 **above the pole. The only other position would be**  
 21 **much further down on the pole here, this lower arm**  
 22 **is at 90 feet. You'd be down in the, you know, 50**  
 23 **to 60-foot height of where you could actually mount,**  
 24 **so that actually would start to get into the tree**  
 25 **lines of what surrounds that right-of-way.**

1 **So the installation that's proposed is**  
 2 **a 12 -- a 13-foot platform, triangular platform, on**  
 3 **the top of the pole, so it has three sides, each**  
 4 **sector that we have has two antennas, for a total of**  
 5 **six antennas. Like I said, it's only electric and**  
 6 **telephone service, it's an unmanned facility. It**  
 7 **gets visited basically once every four to six weeks.**  
 8 **The technician would just utilize the access road as**  
 9 **their parking and that's the basis of the proposal.**  
 10 **Q.** Just a couple of other questions.  
 11 With respect to tree removal, this is  
 12 currently a cleared right-of-way, there is no tree  
 13 removal proposed?  
 14 **A. That's correct.**  
 15 **Q.** And due to the New Jersey  
 16 Administrative Code, that prohibits landscaping  
 17 within the right-of-way underneath the electric  
 18 lines?  
 19 **A. That's correct.**  
 20 **Q.** And in lieu of that, you're proposing a  
 21 fence to act as a buffer around the equipment,  
 22 whether it's the shelter or the outdoor cabinets?  
 23 **A. Yes, we've proposed a seven-foot-high**  
 24 **solid composite wood fence to screen the equipment.**  
 25 **Q.** And lastly, have you reviewed a

1 structural analysis to confirm that the tower is  
 2 structurally able to support the antennas?  
 3 **A. Yes.**  
 4 **Q.** And it is?  
 5 **A. And it is.**  
 6 **Q.** Do you want to review the other exhibit  
 7 you have of the --  
 8 **A. Yes.**  
 9 **Q.** -- alternate plan?  
 10 **A. So what we did --**  
 11 MR. MEESE: Now, this is a new  
 12 exhibit, the Board has not seen this. Should we  
 13 mark this?  
 14 MR. SHAW: Yes, mark this A-10 with  
 15 today's date.  
 16 MR. PAZDEN: Okay.  
 17 (Revised Compound Layout is marked as Exhibit  
 18 A-10.)  
 19 **A. So I've marked this exhibit as A-10.**  
 20 **This is, again, Sheet C-3 with a Revision 2 date.**  
 21 **The revision date on the drawing is March 8, 2016,**  
 22 **it's stated "Revised Compound Layout," and this is**  
 23 **based on our visit that we had Saturday, we**  
 24 **maintained the same location of the fence along the**  
 25 **centerline of the pole because, as we had discussed**

1 **in the field, PSE&G likes us to try and keep that as**  
 2 **close as we can to the center so that if there ever**  
 3 **is a collocator, they can kind of come to the other**  
 4 **side of the centerline, so that the site is prepared**  
 5 **for a future collocator. We then changed out the**  
 6 **shelter to have the equipment cabinets. These are**  
 7 **the same cabinets that would basically be inside the**  
 8 **shelter but we can now place them on a 4-foot-by-20-**  
 9 **foot concrete pad that would now be inside a 10-**  
 10 **foot-by-31-foot fenced area rather than an 18-foot-**  
 11 **by-31-foot fenced area. The reason we're able to**  
 12 **make it so much smaller is we can use kind of the**  
 13 **clearance around the cabinets, they're needed for**  
 14 **the door swings and things like that, just within**  
 15 **the fenced-in area instead of having to be in a**  
 16 **building that then the building also needs more**  
 17 **space. So the cabinets themselves are a little less**  
 18 **than six feet tall, sitting up on the concrete pad.**  
 19 **What we did is we also looked at the grading, we**  
 20 **could do a little cut into the top of the hillside**  
 21 **and we reversed it where this curb line would maybe**  
 22 **be about six inches out of the grade at the down-**  
 23 **slope side as opposed to two-and-a-half feet before.**  
 24 **With the concrete pad, we can kind of use it to pick**  
 25 **up a little of the grade as well so that we're only**

1 going to have to cut into the slope a little bit, so  
2 in a nutshell, we've lowered that whole area down  
3 about two feet from the way it was previously  
4 proposed so you won't have that tabletop effect that  
5 we had previously. It would still be the seven-  
6 foot-high fence that would, like I say, be taller  
7 than the equipment cabinets.

8 Q. Now, Mr. Pazden, under either plan,  
9 with respect to noise from the equipment, there is  
10 no generator proposed?

11 A. Correct.

12 Q. And did you review with the Board's  
13 acoustical expert, Norman Dotti, the noise  
14 generators from this facility?

15 A. Yes, I did. I went over this with him  
16 and he was familiar with the temporary site that was  
17 set up more towards the Spring Street facility that  
18 we'll talk about later, so he's familiar with the  
19 outdoor cabinets, and once I explained that that was  
20 what we're proposing, he seemed to -- he wrote a  
21 letter that said that that should be acceptable.

22 Q. And would you agree that there is no  
23 substantial noise to be generated from this  
24 facility?

25 A. Yes.

1 MR. MEESE: Are there any questions of  
2 Mr. Pazden?

3 CHAIRMAN VIVONA: Yes. When you dig  
4 out for the pad, are you leveling off so that the  
5 fence is level all the way around too or is that  
6 going to follow the contour of the ground?

7 MR. PAZDEN: Yeah, we -- basically,  
8 outside of the fence, we have a little -- a wood  
9 curb that's like a gravel stop. There will be  
10 crushed gravel within this. So this whole -- this  
11 whole wood curb area is 21 feet by 39 feet that we  
12 -- it'll actually have a slight slope to it for a  
13 little drainage to tie into the grade, so for the  
14 most part, that will be fairly a flat plane so it's  
15 easy to work off of --

16 CHAIRMAN VIVONA: Okay.

17 MR. PAZDEN: -- and the only real cut  
18 is, you know, we'll just have to cut about a foot, a  
19 foot of depth across this, you know, back 15 feet to  
20 get that to work.

21 CHAIRMAN VIVONA: Okay, so the fence  
22 will basically be --

23 MR. PAZDEN: Even.

24 CHAIRMAN VIVONA: -- even and so that  
25 way -- what I'm worried about is if the fence --

1 MR. PAZDEN: Right.

2 CHAIRMAN VIVONA: -- is on the slope,  
3 you'll be able to see the equipment.

4 MR. PAZDEN: No, right, the fence will  
5 be basically even. We'll have a step in the wood  
6 curb of six inches going up the side, but because of  
7 the way we'll be sloping that gravel, the fence will  
8 be even along there.

9 CHAIRMAN VIVONA: Okay. On the access  
10 road, it's -- obviously, during the construction,  
11 they'll be driving on it. When the maintenance  
12 technician comes, is he going to drive up that hill  
13 or is he going to walk up the hill?

14 MR. PAZDEN: They -- they do drive.  
15 They have an SUV, you know, and it's the same way  
16 that they've always accessed the previous site, so  
17 that's acceptable to them.

18 CHAIRMAN VIVONA: Okay. You need a  
19 variance for a 13-inch-wide antenna. Why can't you  
20 use a 12?

21 MR. PAZDEN: Well, the radio frequency  
22 engineer might be able to talk a little more about  
23 the specifics of the antenna, but for the model that  
24 they need for their -- that's the physical  
25 dimensions. There's no way of actually making it

1 smaller for that model antenna.

2 CHAIRMAN VIVONA: Okay. And each  
3 antenna requires four coaxial cables?

4 MR. PAZDEN: Yes, there's -- there's  
5 also, like, behind the antenna, it's a small  
6 connector, it's called TMAs, which are tower-mounted  
7 amplifiers that the main cables go into and then  
8 there are small cables from that that wire into the  
9 back of the antennas, but that's how they're  
10 distributed, basically four per antenna.

11 CHAIRMAN VIVONA: So it's four from  
12 the base to the module --

13 MR. PAZDEN: Yes.

14 CHAIRMAN VIVONA: -- and then it  
15 splits out.

16 MR. PAZDEN: Yes.

17 CHAIRMAN VIVONA: So it's 24 wires.

18 MR. PAZDEN: Correct.

19 CHAIRMAN VIVONA: And the poles are  
20 rated for 32, you said?

21 MR. PAZDEN: 42 total --

22 CHAIRMAN VIVONA: 42.

23 MR. PAZDEN: -- is what PSE&G will  
24 allow.

25 MR. HURRING: So is it possible to use

22

1 21 coax instead of 24? I mean, would that be -- I  
 2 guess my question around the, I guess, the  
 3 collocation, right, thinking ahead to that, I  
 4 learned, you know, PSE&G said "Oh, you have three  
 5 spots" but we've been told pretty much no one -- the  
 6 bottom spot's unusable, so there's two, and this  
 7 seems like a really good site, you guys aren't on  
 8 the top so great location, a lot of other people  
 9 want to go on the top, other providers, so just  
 10 wondering, is -- I mean, in my mind, just splitting  
 11 it down the middle, you each get 21 coax cables, and  
 12 what I'm trying to understand, you know, if all  
 13 carriers are like "No, we probably need about 24,"  
 14 whatever, I don't know if there's any consistency  
 15 across there from carriers but...

16 MR. PAZDEN: No. We do design for all  
 17 the different carriers and they vary. This is what  
 18 T-Mobile needed in this installation. We're doing  
 19 others for other carriers that need 12. So there  
 20 are sites that we've designed two-collocator  
 21 locations that we're working on, so they definitely  
 22 can work out around each other.

23 MR. HURRING: Okay. So it's not just  
 24 -- it's not ruling out that. That's what I was just  
 25 --

23

1 MR. PAZDEN: Right, right.  
 2 MR. HURRING: I don't know if  
 3 everybody else was like "Yeah, we need 24 too,"  
 4 so...

5 MR. PAZDEN: Right.  
 6 CHAIRMAN VIVONA: Well, right now,  
 7 there's no one scheduled to collocate, and if  
 8 someone ever were to decide to, then their  
 9 limitation is that they'd have to design it so it  
 10 only takes 18 wires, correct?  
 11 MR. PAZDEN: Correct.  
 12 CHAIRMAN VIVONA: Okay.  
 13 MR. BORSINGER: The wires going up  
 14 now, they're -- they're sticking out versus flush  
 15 against the pole. Is that the design?  
 16 MR. PAZDEN: Yes. They have a bracket  
 17 that'll stick out, it's approximately 14 inches  
 18 total, that the cables will clip into the sides of  
 19 each of the brackets that goes up.  
 20 MR. BORSINGER: Do all carriers have  
 21 them stick out like that?  
 22 MR. PAZDEN: Yes, that's PSE&G's  
 23 design of how they'll allow us to route the cables  
 24 up, because that way, it allows you to get this many  
 25 cables for the carriers to work. If they were flat

24

1 on the surface, a couple things: If this was like  
 2 -- if this was a standalone monopole, not a  
 3 transmission tower, you may see where they use  
 4 banding and strap it all the way around the  
 5 perimeter. That is not something that's allowed  
 6 because of the access that they -- that PSE&G has  
 7 required for their ladders going up the other side,  
 8 so we're not able to do that type of mount here, so  
 9 what's proposed is the brackets to go up. Those are  
 10 actually strong as well to be able to support this  
 11 number of cables that they've allowed.

12 MR. BORSINGER: I've seen where they  
 13 do like raceways going up. They don't do that?  
 14 MR. PAZDEN: Again, not on a  
 15 transmission tower.

16 CHAIRMAN VIVONA: The material for the  
 17 platform and the wires and the antennas, I guess the  
 18 platform will be galvanized --  
 19 MR. PAZDEN: Yes.  
 20 CHAIRMAN VIVONA: -- so it matches the  
 21 pole? What about the wires and the antenna?  
 22 MR. PAZDEN: The antennas are  
 23 basically an off-white/gray tone, so when they're up  
 24 130 feet in the air, they pretty much blend into the  
 25 surrounding. The coax cables themselves are black

25

1 coax cable and -- so it'll have two lines of black  
 2 cables going up the side.  
 3 CHAIRMAN VIVONA: How big are they?  
 4 MR. PAZDEN: The cables are an inch  
 5 and five-eighths diameter.  
 6 CHAIRMAN VIVONA: Big, okay. Can they  
 7 be colored at all?  
 8 MR. PAZDEN: Again, we are limited  
 9 often when it's on a transmission tower. Sometimes  
 10 cables on the side of a building could be painted or  
 11 they can be put in a cable tray that could be  
 12 painted, but here, because of maintenance, it's just  
 13 not something that they'll allow us to paint the  
 14 cables.  
 15 CHAIRMAN VIVONA: Couldn't your  
 16 supplier color the coating?  
 17 MR. PAZDEN: That's something that I  
 18 guess we could find out if a gray jacket --  
 19 CHAIRMAN VIVONA: Yeah.  
 20 MR. PAZDEN: -- would be available. I  
 21 don't know off the top of my head if their cable  
 22 is...  
 23 CHAIRMAN VIVONA: Well, I mean, it's  
 24 just a plastic coating, so if it's available, to  
 25 make it less obvious, especially since it sticks out

26

1 14 inches and they're almost two inches thick. You  
 2 know, we want it to blend in and be as nondistinct  
 3 as possible. If that's a possibility, I'd  
 4 appreciate if you could check into that.  
 5 MR. PAZDEN: Yeah, I don't think we'd  
 6 have a problem checking into that, if it's available  
 7 from their coax cable.  
 8 MR. MEESE: We'll check with the  
 9 supplier.  
 10 CHAIRMAN VIVONA: Okay.  
 11 MR. BORSINGER: Or you mentioned a  
 12 cable, I call it a raceway, you call it a cabinet --  
 13 what do you call it?  
 14 MR. PAZDEN: A cable tray.  
 15 MR. BORSINGER: A cable tray. They  
 16 won't allow that going up?  
 17 MR. PAZDEN: They won't allow that  
 18 here.  
 19 MR. BORSINGER: Okay.  
 20 MR. PAZDEN: The cable mounting here  
 21 is basically the design that they'll allow for the  
 22 physical attachment and brackets to the tower.  
 23 CHAIRMAN VIVONA: Tell us about the  
 24 cable bridge.  
 25 MR. PAZDEN: The cable bridge, two

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1 things about the cable bridge: It's running from  
 2 the compound, it'll be ten feet high so that the  
 3 cables are hanging underneath that. There's a small  
 4 trapeze that the cables are lined up on, then as it  
 5 gets to the pole, they'll transition from running  
 6 horizontal and sweep up to the vertical runs on the  
 7 tower. There will be a small bracket on the pole  
 8 that helps provide support. They don't allow any  
 9 cable bridge post between the compound and their  
 10 tower, so at the compound itself, it has a little  
 11 extension that'll support that end of the cable  
 12 bridge. We can drop the cable bridge to the seven-  
 13 foot height inside the compound so, again, once we  
 14 get it in the compound, we can make it level with  
 15 the fence height.  
 16 CHAIRMAN VIVONA: Okay.  
 17 MR. PAZDEN: It's just the section  
 18 that's outside the compound needs that height. The  
 19 reason for that is they need clearance to be able to  
 20 -- anybody walking outside the fence is protected  
 21 for an eight-foot head-height clearance.  
 22 CHAIRMAN VIVONA: Okay. Is that  
 23 enclosed or is it expanded metal or...  
 24 MR. PAZDEN: The top surface is, yeah,  
 25 it's basically a metal 18-inch-wide, about four-

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1 inch-deep channel that's just laying horizontal that  
 2 then has threaded rods with a flat angle on it  
 3 basically that holds the cables in place and  
 4 there'll be three rows of cables that will be on  
 5 that that will extend to the tower.  
 6 CHAIRMAN VIVONA: Okay.  
 7 MR. HYLAND: Have we asked for people  
 8 to put that in a tray before?  
 9 CHAIRMAN VIVONA: We've had them  
 10 enclose the whole thing --  
 11 MR. HYLAND: Yeah.  
 12 CHAIRMAN VIVONA: -- so it's not  
 13 exposed. We've had them -- we had someone bury one  
 14 but they're not allowed to dig on that property,  
 15 right?  
 16 MR. PAZDEN: Right, the issue with the  
 17 underground are, from the foundation to the fenced  
 18 compound is ten feet. We talked about -- to them  
 19 about running them underground and the problem is  
 20 they really want that buffer around the foundation  
 21 so that they have clear access for maintenance and  
 22 inspection of their pole. So by the time they would  
 23 allow us anywhere to come up, you would still have  
 24 to come up with an H frame that brings the conduits  
 25 out of the ground and the cables and then sweep up

29

1 onto a cable bridge as well that would still have  
 2 the same effect. The only time that it's helped us  
 3 in the past is we've had a scenario where if it's  
 4 running through like a wetland transition area, at  
 5 least you might be able to get rid of a long section  
 6 of cable bridge because they don't allow the posts  
 7 --  
 8 CHAIRMAN VIVONA: Um-hum.  
 9 MR. PAZDEN: -- but again, you're  
 10 still having to come up before the pole and form  
 11 that rack with the cable bridge. There's no --  
 12 there's no seamless-transition way of doing it.  
 13 CHAIRMAN VIVONA: Okay.  
 14 MR. HYLAND: And can we put -- will we  
 15 see the cables when they're on the cable bridge?  
 16 MR. PAZDEN: Well, this particular  
 17 site, the way the pole is situated, from sunset,  
 18 you're looking up at the pole, so the cables are  
 19 really running -- you know, sunset is up to the  
 20 north so these cables are really running in from  
 21 behind that you're really not going to have  
 22 visibility of the cables other than, like I said,  
 23 there'll just be a horizontal flat line coming in  
 24 and sweeping up the pole themselves.  
 25 MR. HYLAND: And will there be

1 anything that you can see above the fence line aside  
2 from the bridge?

3 MR. PAZDEN: The cable bridge that  
4 extends beyond the compound will have to be higher  
5 and there will be a very small GPS antenna that will  
6 have to mount above the -- that mounts above the  
7 cable bridge, but it's about the size of a baseball  
8 that'll be just on a small pipe on that section of  
9 cable bridge near the compound.

10 MR. HYLAND: And you talked about  
11 vegetation in the PSE&G right-of-way. I'm not  
12 necessarily concerned about this site but I'd be  
13 interested in your interpretation of what PSE&G does  
14 and doesn't allow for vegetation in their right-of-  
15 way.

16 MR. PAZDEN: Basically, per the Board  
17 of Public Utilities and then what PSE&G will allow  
18 us to do is it's almost no vegetation. There is a  
19 stipulation that in some instances, they've allowed  
20 a three-foot-high boxwood, but it's really a rare  
21 occurrence that we can get that approved by, and  
22 when you're talking about these scenarios, like in  
23 this case, a three-foot-high bush at the base of a  
24 140-foot tower isn't really going to help us screen  
25 the things that we're talking about, the cable

1 bridge or the shelter or things like that.

2 MR. HIGHLAND: Okay.

3 CHAIRMAN VIVONA: Tell us about the  
4 fence.

5 MR. PAZDEN: The fence -- the fence,  
6 the way it's currently designed is a seven-foot-high  
7 composite wood fence. The composite wood is  
8 typically similar to like a deck, a composite  
9 decking material --

10 CHAIRMAN VIVONA: Like Trex type  
11 stuff?

12 MR. PAZDEN: Like a Trex, about a  
13 five-inch-wide board that would mount all the way  
14 around. I know we talked about, when we get to the  
15 other site, trying to make it look a little more  
16 decorative. Here, we can do the same as far as --  
17 you know, the point is still giving it security but,  
18 you know, we can, like, have a scalloped top or  
19 something like that to try and give it some type of  
20 character to the fence line a little bit.

21 CHAIRMAN VIVONA: I think for that  
22 location, we just want it to blend. I don't think  
23 --

24 MR. HYLAND: Yeah, not white.

25 CHAIRMAN VIVONA: You don't want your

1 eye to be drawn to it --

2 MR. PAZDEN: Right.

3 CHAIRMAN VIVONA: -- so scalloping and  
4 stars and lights, we will not need any of that  
5 stuff.

6 MR. PAZDEN: Right.

7 CHAIRMAN VIVONA: Will you be going  
8 with like a tan? Dark brown?

9 MR. PAZDEN: Yeah, like -- typically,  
10 it would be a dark brown or a gray, I mean, you  
11 know, they have, like, light brown, dark brown,  
12 gray; we could -- whatever the Board desires, we can  
13 --

14 MR. SHAW: You ought to specify  
15 what...

16 MR. HURRING: Forgive my ignorance on  
17 this area but was I just curious and I was thinking  
18 about it after the fact that we were at the site,  
19 but we kept talking, so we had the shed, like "Well,  
20 let's get rid of the shed because then the compound  
21 becomes bigger," but if you have a shed, why do we  
22 need the fencing around? Like, if you have it  
23 enclosed within that, isn't it -- that's the  
24 security, right, because everything's inside or...

25 MR. PAZDEN: Well, the other issue is

1 there's an electric meter rack and our telco, telco  
2 has a pedestal as well, and then you do need some  
3 supports, like I said, for the cable bridge to kind  
4 of get out of the shed, so with the clearances then  
5 that they require us to kind of have around there  
6 for access and maintenance is what just expands upon  
7 that area. So you can't just completely house in  
8 the meter and the cabinets and things like that and  
9 still need to go back around it.

10 CHAIRMAN VIVONA: Plus with a shed,  
11 you would need an air-conditioner. Correct?

12 MR. PAZDEN: We actually, with their  
13 setup, we could get rid of the air-conditioner and  
14 have a -- like a roof fan, like a mushroom roof fan  
15 like on a residential home --

16 CHAIRMAN VIVONA: Um-hum.

17 MR. PAZDEN: -- because, again, we're  
18 going to utilize their outdoor cabinets inside so  
19 they're a little bit more tolerant than, like, if  
20 you were doing an equipment shelter of all indoor  
21 cabinets.

22 CHAIRMAN VIVONA: Right. But the shed  
23 would be above the fence.

24 MR. PAZDEN: Yeah.

25 CHAIRMAN VIVONA: So that's the

1 downside of the shed.  
 2 MR. HURRING: And there's just no way  
 3 to put it all inside a shed.  
 4 CHAIRMAN VIVONA: There is but it's a  
 5 bigger compound by ten feet wider?  
 6 MR. PAZDEN: Eight feet wider.  
 7 CHAIRMAN VIVONA: It's eight feet  
 8 wider with the width of the building and the  
 9 building actually sticks up above the fence so it's  
 10 more visible.  
 11 MR. HURRING: Right, no, but that's  
 12 what I was saying --  
 13 MR. SHAW: You still need the fence  
 14 for security purposes, I believe.  
 15 MR. PAZDEN: Right.  
 16 CHAIRMAN VIVONA: Right.  
 17 MR. HURRING: Well, isn't it harder to  
 18 get inside a building then with a fence?  
 19 MR. SHAW: They still need their --  
 20 they still need to have a --  
 21 MR. HURRING: Right, and I understand  
 22 the clearance, yeah, yeah, I guess I get that. You  
 23 need certain utilities outside?  
 24 MR. PAZDEN: Yes.  
 25 MR. HURRING: They're not allowed to

1 be put inside.  
 2 MR. PAZDEN: Right. This would be --  
 3 this is an electric meter bank and telco, it has a  
 4 Strongwell box buried in the ground where the telco  
 5 comes in and then you'll have a telephone pedestal  
 6 on top --  
 7 MR. HURRING: Um-hum.  
 8 MR. PAZDEN: -- and then the reason  
 9 these are also set is if there ever is a collocator,  
 10 they'll pull their service directly out of these, so  
 11 whoever the first carrier is at the site, their  
 12 compound ends up being a little bit larger because  
 13 they have to house the main utilities there.  
 14 MR. HURRING: Right, but those can't  
 15 go inside the shed, is what you're saying --  
 16 MR. PAZDEN: No.  
 17 MR. HURRING: -- right?  
 18 MR. PAZDEN: No. The utility  
 19 companies need them out -- would have to have them  
 20 outside.  
 21 MR. HURRING: Why do they need them  
 22 outside?  
 23 MR. PAZDEN: They won't allow us to  
 24 put the meters inside the T-Mobile shelter or --  
 25 it's not set up that way.

1 MR. HYLAND: Is it the same as my  
 2 electrical meter on my house?  
 3 MR. PAZDEN: On your house, yeah, your  
 4 electric meter.  
 5 MR. HYLAND: So I don't have a fence  
 6 on my electric meter. I understand where you're  
 7 going with this.  
 8 MR. HURRING: Right, yeah, I mean, I  
 9 don't know because just the compound -- I mean,  
 10 still, when they go inside with your fencing around  
 11 it, they're still going inside your fencing to get  
 12 to their -- I don't know. I mean, yeah, I was just  
 13 kind of curious if we could -- I didn't, you know.  
 14 CHAIRMAN VIVONA: Well, I think the  
 15 fence would look better than just having three or  
 16 four giant-grade boxes the size of refrigerators out  
 17 in the open.  
 18 MR. HURRING: Oh, yeah, I'd agree,  
 19 yeah, yeah. I was just wondering if we could get  
 20 rid of the fence.  
 21 MR. SHAW: I guess the question is:  
 22 Why do you need the fence -- if you have an  
 23 equipment shelter, why do you -- do you still need  
 24 to have a fence surrounding the equipment shelter  
 25 and why?

1 MR. PAZDEN: Yes.  
 2 MR. SHAW: Just --  
 3 MR. PAZDEN: Yes; the reasons are:  
 4 They require the clearance around the shelter, it's  
 5 the size and it's for the security of the compound.  
 6 The utilities -- they won't allow open utilities in  
 7 the right-of-way. They make us fence it in.  
 8 CHAIRMAN VIVONA: Sort of like a pool.  
 9 When you have a pool, you have to have a fence, so I  
 10 guess with these, especially if it's, you know,  
 11 available to the public to go up and touch, it has  
 12 to have a fence, and if someone jumps the fence,  
 13 then they assume the liability.  
 14 MR. HURRING: Right.  
 15 MR. MICHAELS: I have a question.  
 16 When you were proposing the shed, you  
 17 had a light above the door of the shed. With this  
 18 arrangement, is any light proposed?  
 19 MR. PAZDEN: No, we don't have any  
 20 light.  
 21 MR. MICHAELS: Okay.  
 22 MS. ROMANO: So just so I understand  
 23 the difference between the two versions. So Z-3,  
 24 the first version with the shed, that had a rooftop,  
 25 right? So it looked more like, you know, like a

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1 shed that someone would have in their backyard.  
 2 MR. PAZDEN: Right.  
 3 MS. ROMANO: But that height was 18  
 4 feet high from the top?  
 5 MR. PAZDEN: No. The compound was 18  
 6 feet wide.  
 7 MS. ROMANO: Wide. How tall was the  
 8 shed?  
 9 MR. PAZDEN: The total height -- and  
 10 again, we could modify that shed slightly -- was 14  
 11 feet to the top of the gable roof --  
 12 MS. ROMANO: Okay.  
 13 MR. PAZDEN: -- but again, that's more  
 14 aesthetics, like if -- if it was -- the Board wanted  
 15 the shed and make it a lower-pitched roof, we can  
 16 certainly try and cut that down.  
 17 MS. ROMANO: But that shed would still  
 18 need this fence --  
 19 MR. PAZDEN: Yes.  
 20 MS. ROMANO: -- which is in this  
 21 version.  
 22 MR. PAZDEN: Yes.  
 23 MS. ROMANO: And because that's  
 24 enclosed, you now need to have a fan that runs  
 25 constant?

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1 MR. PAZDEN: Not constant but it's  
 2 like your attic fan of your house where, when it  
 3 gets to a certain temperature, it's going to be  
 4 running, so, like, even on days like today, you  
 5 know, buildings that are enclosed like that do warm  
 6 up, so it might be running but it -- it would still  
 7 meet the noise ordinance requirements --  
 8 MS. ROMANO: Okay.  
 9 MR. PAZDEN: -- but it's just -- that  
 10 would be needed.  
 11 MS. ROMANO: But then if we do the  
 12 fence option, it's now only seven feet high from the  
 13 street, right?  
 14 MR. PAZDEN: Right.  
 15 MS. ROMANO: So then you would see  
 16 seven feet. Regardless, I guess we're going to  
 17 still see a fence because it's either around the  
 18 shelter or just --  
 19 MR. PAZDEN: Correct.  
 20 MS. ROMANO: -- so low. So we have  
 21 this fence at seven feet, now we don't need a fan  
 22 because there's not like a constant, I guess it's  
 23 more open air?  
 24 MR. PAZDEN: Correct.  
 25 MS. ROMANO: So there's no additional

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1 noise, you know, like, I guess, you know, that this  
 2 would, I guess, produce.  
 3 MR. PAZDEN: That's correct.  
 4 MS. ROMANO: You know, so there's  
 5 nothing that runs constant -- right? -- where you  
 6 hear like a hum of someone's air-conditioning.  
 7 MR. PAZDEN: Right.  
 8 MS. ROMANO: Okay, and then you're not  
 9 going to do a generator?  
 10 MR. PAZDEN: No, no generator.  
 11 MS. ROMANO: And then -- like, what  
 12 would happen if they need a generator at another  
 13 point in time? Would that have to come in front of  
 14 us again or would they just be able to install a  
 15 generator?  
 16 MR. PAZDEN: Well, I can tell you that  
 17 PSE&G will not allow a generator --  
 18 MS. ROMANO: Okay.  
 19 MR. PAZDEN: -- and they don't allow  
 20 even a temporary general generator.  
 21 MS. ROMANO: Okay, so there's no way  
 22 that...  
 23 MR. PAZDEN: T-Mobile has a battery  
 24 backup that gives them a few hours worth of backup  
 25 power but they will not have a generator.

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1 MS. ROMANO: Okay. And is there any  
 2 -- there's no noise from the antennas, right?  
 3 MR. PAZDEN: No.  
 4 MS. ROMANO: So there's -- okay. All  
 5 right, thank you.  
 6 MR. MEESE: Any other questions of Mr.  
 7 Pazden?  
 8 MS. ROMANO: I have one more, sorry.  
 9 You can't dig down, right? Is that --  
 10 MR. PAZDEN: Correct.  
 11 MS. ROMANO: Was that ruled on, that  
 12 they definitely can't go at all underneath to --  
 13 MR. PAZDEN: Correct.  
 14 MS. ROMANO: And why; is that more of  
 15 a PSE&G thing or...  
 16 MR. PAZDEN: It's a -- it's a  
 17 combination. PSE&G wouldn't allow it, digging in  
 18 their right-of-way to bury, you know, the compound.  
 19 We've tried to address it with the carriers in the  
 20 past but the bearing of sites, it brings up whole  
 21 other issues of water, grounding issues, the  
 22 equipment -- it becomes a damp area, the equipment's  
 23 not geared up for being in that scenario. It also  
 24 becomes a vault that makes it like an access issue  
 25 for technicians to enter an underground vault, so

1 there's just numerous safety reasons and operations  
2 reasons that the carriers don't and aren't able to  
3 bury them.

4 MS. ROMANO: Do you know if it's ever  
5 been done?

6 MR. PAZDEN: Not to my knowledge.

7 MR. WILLIAMS: Yeah, we heard that  
8 Saturday too and I -- the telecommunications  
9 industry has been burying stuff forever. They have  
10 underseas cables under the Atlantic Ocean two miles  
11 down and it's really wet there, and yet they don't  
12 have any problem. So I don't get that it's  
13 impossible to put the stuff underground. I don't  
14 get it.

15 MR. MEESE: Well, this is electronic  
16 devices, not just cable. This is like putting your  
17 stereo underground.

18 MR. WILLIAMS: AT&T has entire central  
19 offices built underground. You walk in the front  
20 door and you go down six floors to the basement to  
21 where their equipment is.

22 MS. ROMANO: Yeah, like our basements.

23 MR. WILLIAMS: Somebody's gotta figure  
24 out how to do it, that's all I'm saying, guys. It's  
25 not impossible to put stuff underground.

1 MR. MEESE: One of them -- one of them  
2 flooded out during Sandy and North Jersey lost  
3 telephone.

4 MS. ROMANO: That's a hundred-year  
5 storm. But I'm just saying like, you know, we all  
6 have basements, you know.

7 MR. MEESE: There's issues with it.

8 MS. ROMANO: We have basements, you  
9 know, if they're built correctly, hopefully it's --  
10 you know, we're in a very sandy neighborhood, it's  
11 very dry, you know, so I'm just --

12 MR. MEESE: Understood.

13 MS. ROMANO: -- wondering, you know,  
14 if it's ever been done and if it's possible because  
15 you can prevent moisture, I would think, inside a  
16 building because we all have basements and a lot of  
17 our basements are dry.

18 MR. MEESE: I just know the carriers  
19 won't do that, I also know that PSE&G won't allow  
20 it, so on this site, it just can't be done.

21 MS. ROMANO: Okay.

22 CHAIRMAN VIVONA: Anybody else have  
23 any questions for Mr. Pazden?

24 Okay, at this time, anybody in the --  
25 excuse me?

1 MR. STYPLE: I think we had a little  
2 concern and you mentioned in your report about the  
3 rubbish removal.

4 MR. HYLAND: Oh, yeah.

5 CHAIRMAN VIVONA: Yeah.

6 MR. HYLAND: Who's responsible for  
7 that?

8 MR. PAZDEN: Yeah, I spoke --

9 MR. HYLAND: Good question.

10 MR. PAZDEN: I spoke with T-Mobile.  
11 That was the previous, it's called a CSC cabinet,  
12 which was the old style telephone pedestal. When  
13 the former site was decommissioned, the telephone  
14 company, in this case, it was Verizon, was notified  
15 that that was removed. They were supposed to pick  
16 it up. I've notified T-Mobile construction team  
17 about it, that it was still there, so they said  
18 that, you know, they'll try and reach out to Verizon  
19 to get it picked up but it's -- it's a Verizon  
20 pedestal that we have to get picked up from that  
21 location. So I am -- I did look into it and I'm  
22 trying to get it addressed.

23 MR. SHAW: Verizon's going to be here  
24 in a month.

25 MR. PAZDEN: That's a separate --

1 well, that's Verizon Wireless versus --

2 CHAIRMAN VIVONA: That'll be a  
3 condition on their...

4 (Laughter)

5 MR. MEESE: Have them bring the  
6 pedestal in.

7 CHAIRMAN VIVONA: Exactly.

8 Just one quick question about the  
9 cabinets and we're trying to make these things as  
10 small as possible. The cabinets are basically the  
11 size of a refrigerator?

12 MR. PAZDEN: Yeah, they're four foot  
13 three wide, about two foot six inches deep, and they  
14 sit on a small pedestal where the cables come in so  
15 they end up being just under six feet tall.

16 CHAIRMAN VIVONA: Now, this is just a  
17 question for me. Why are they built tall as opposed  
18 to wide and flat to make them less obvious?

19 MR. PAZDEN: I'm not sure I follow.

20 CHAIRMAN VIVONA: Well, instead of  
21 having a standup refrigerator, you have a chest  
22 refrigerator where you have the same amount of cubic  
23 footage inside it, but instead of it being six foot  
24 tall, now you have to have six. If it's only three  
25 feet tall and you open it up this way...

1 MR. PAZDEN: Well, the way the  
 2 cabinets are, they're basically a case that encloses  
 3 all the different radio equipment, so they have  
 4 various racks, you have batteries inside, so just  
 5 the access that's needed, the arrangement, it's  
 6 actually quite compact, the amount of equipment that  
 7 they have inside these cabinets is actually very  
 8 efficiently packed in there, especially, you could  
 9 even see how T-Mobile operates out of a couple  
 10 cabinets and I'm sure you've seen other carriers  
 11 have needed full large-scale shelters in the past,  
 12 so their installation is actually quite efficient to  
 13 be small.

14 CHAIRMAN VIVONA: Okay. Just a  
 15 comment. I think that since we all need tele-  
 16 communications and it's going to wind up going in  
 17 neighborhoods all over the country, I mean, that's  
 18 how it works, I just think that the industry should  
 19 look into finding ways to make them, you know, as  
 20 less impactful to a neighborhood as possible. I'm  
 21 not saying you have to do it now, redesign the  
 22 wheel, but I think it's just something -- you're an  
 23 engineer -- something that should be looked into to  
 24 make it less conspicuous and especially in  
 25 neighborhood situations. In this particular

1 situation, it's basically hidden and there's never,  
 2 ever going to be a house built near it closer than  
 3 the ones that are there and those are well shielded,  
 4 but I think your industry should look into finding  
 5 ways -- obviously, burying it is a problem, but just  
 6 making them more compact to be less obvious. That's  
 7 just a statement.

8 Anybody else have any other questions?  
 9 John, do you have any issues with  
 10 anything?

11 MR. RUSCHKE: No, I did just mention  
 12 that and I know he testified that they don't expect  
 13 any significant disturbance with bringing in  
 14 equipment but, you know, they really need to make  
 15 sure this gets communicated to their own contractors  
 16 because you certainly don't want a situation where  
 17 they're mobilizing, they're trying to coordinate a  
 18 shutdown and all of a sudden, they get slapped with  
 19 a red ticket, stop work order, because there's mud  
 20 running down the road, so certainly you want to  
 21 coordinate very closely with your contractors and  
 22 make sure that, you know, what you testified is  
 23 actually going to be followed because that would be  
 24 quite awkward for you.

25 MR. PAZDEN: Sure.

1 CHAIRMAN VIVONA: Okay?  
 2 If no one else from the Board has  
 3 anything, we'll open up to the public so you can ask  
 4 Mr. Pazden any questions about what he testified to.  
 5 (No response)

6 CHAIRMAN VIVONA: None heard.  
 7 Okay. Thank you.

8 MR. PAZDEN: Thank you.

9 CHAIRMAN VIVONA: Your next witness.

10 MR. MEESE: Thank you. Next witness  
 11 is Joe Menio.

12 Mr. Menio, if you would raise your  
 13 right hand to be sworn in.  
 14 J O S E P H M E N I O, Senior RF Engineer, PierCon  
 15 Solutions, 63 Beaver Brook Road, Suite 201, Lincoln  
 16 Park, New Jersey 07035, is sworn by Board Chairman.

17 CHAIRMAN VIVONA: Please spell -- say  
 18 and spell your name for the record and give us your  
 19 qualifications.

20 MR. MENIO: Joseph Menio, M-E-N-I-O.  
 21 I'm a Senior RF Engineer for PierCon Solutions.  
 22 They're a wireless firm. I have over 12 years of  
 23 experience. I have done work for all major  
 24 carriers. I have done work for public safety  
 25 systems. I have worked through municipalities, I

1 have worked with New York State 9/11 boards. I  
 2 believe I've been approved as an expert three times  
 3 before this Township and I've done over a hundred  
 4 zonings.

5 MR. MEESE: I would offer Mr. Menio as  
 6 an expert in the field of radio frequency  
 7 engineering.

8 CHAIRMAN VIVONA: Okay.

9 DIRECT EXAMINATION BY MR. MEESE:

10 **Q.** Mr. Menio, the facility that is  
 11 proposed in this application is to replace an  
 12 existing temporary site, or two temporary sites, and  
 13 also to fill in a gap that was left when the former  
 14 T-Mobile facility went off the air when the former  
 15 PSE&G tower was removed; is that right?

16 **A. That is correct.**

17 **Q.** And the purpose here is to basically  
 18 restore the service that had existed with the former  
 19 facility?

20 **A. Correct.**

21 **Q.** And you have an exhibit that you have  
 22 before us.

23 MR. MEESE: The Board hasn't seen this  
 24 exhibit. Do you want to first mark it and then  
 25 explain what's shown on that exhibit?

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1 MR. SHAW: That will be A-11 and put  
2 today's date on it, please.  
3 (Site Plan showing a general overview of the  
4 proposed site is marked as Exhibit A-11.)  
5 MR. MENIO: All right, what A-11  
6 depicts is basically a general overview of our  
7 proposed subject site, which is marked as a blue  
8 central dot labeled as NJ06696A, and then you will  
9 see two shaded areas, basically. One shaded being  
10 yellow and then one being an unshaded area. And  
11 there's also green dots, which represent T-Mobile's  
12 existing sites.  
13 Now, let me explain. The yellow  
14 represents T-Mobile's reliable in-vehicle coverage,  
15 which is neg 84 dBm. Where you see a white area,  
16 that's considered to be unreliable service within a  
17 vehicle.  
18 Starting in a clockwise direction and  
19 up north, the first existing T-Mobile site is  
20 labeled as NJ06301A, which is in the northern  
21 quadrant, basically 12:00. That is located at 401  
22 Southern Boulevard and T-Mobile is approximately  
23 located at a centerline of 96 feet. Continuing in a  
24 clockwise direction, that brings us to our next  
25 site, which is in the lower right-hand quadrant,

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1 which is labeled as NJ06589A, T-Mobile. That is  
2 located at 11 Spring Street, and T-Mobile is located  
3 approximately around 46 feet on a monopole.  
4 Now, as you could barely see, there is  
5 a last remaining site labeled as NJ064444A, and as  
6 you could see around it, there's really not that  
7 much yellow because that is actually a T-Mobile  
8 in-building site, so that is just meant to provide  
9 coverage to whatever building it's permanently in  
10 and not the surrounding areas.  
11 So as you can see along the major  
12 roadways, such as Fairmont, there is an area of  
13 approximately 1.6 miles, which is shown on this  
14 exhibit, which lacks unreliable coverage, but in  
15 reality, it continues on for 2.3 miles in total of  
16 this whole road. There is also a significant gap in  
17 coverage along Passaic Street for approximately .57  
18 miles. This is a major road. I have DOT counts  
19 from 2012 which show the DOT test was approximately  
20 by High Street and they said that the road averaged  
21 18,338 cars a day. There is also a gap along Wilson  
22 Avenue, approximately four miles, and then also  
23 along Central Avenue for approximately .39 miles.  
24 **Q.** Is that 4 miles or .4?  
25 **A.** **.4. And then last, Springfield, which**

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1 **on this exhibit, we have 0.9 miles of unreliable**  
2 **coverage; however, it continues for approximately**  
3 **2.7 more miles on.**  
4 **And now, this leads us to my next**  
5 **exhibit, which would be with our proposed site on**  
6 **air, and as you can see, a majority of the gaps**  
7 **which I just labeled have been fulfilled and**  
8 **basically, this proposed site is, I believe, within**  
9 **a hundred feet of the old existing site, so**  
10 **T-Mobile's coverage is unaffected in this area.**  
11 **We're basically going exactly back where we were.**  
12 **Q.** That's also covering the residential  
13 areas surrounding the site?  
14 **A.** **That is correct.**  
15 **Q.** And based on national statistics,  
16 there's about 40 percent of households now that are  
17 wireless only?  
18 **A.** **That is correct, I don't even own a**  
19 **hard line myself.**  
20 **Q.** So this site would fill that need as  
21 well?  
22 **A.** **Correct.**  
23 **Q.** Do you envision any interference issues  
24 with respect to any electronics that may be  
25 operating in the neighborhood?

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1 **A.** **No, T-Mobile is -- they have to follow**  
2 **FCC licenses issues, so if they're interfering with**  
3 **anything, they'll be the first to know.**  
4 MR. MEESE: Okay. Any questions of  
5 Mr. Menio?  
6 CHAIRMAN VIVONA: The data from the  
7 first exhibit, was that the temporary location?  
8 MR. MENIO: No, those are with both  
9 temporary locations off air. Do you want me to flip  
10 back so you could take a look?  
11 CHAIRMAN VIVONA: Yeah.  
12 (Mr. Menio turns page.)  
13 CHAIRMAN VIVONA: So with the old  
14 tower, was there a gap before?  
15 MR. MENIO: No, basically, the old  
16 tower would look identical to this because, in  
17 reality, a hundred feet of moving a pole around  
18 really isn't going to change the magnitude of  
19 coverage that much unless there's a drastic increase  
20 in ground elevation.  
21 CHAIRMAN VIVONA: Okay. So you're  
22 restoring what you once had.  
23 MR. MENIO: Correct.  
24 CHAIRMAN VIVONA: Okay. Because when  
25 you go back to the first one, it looks like T-Mobile

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1 is providing excellent service to the great swamp.  
2 MR. MENIO: Yeah.  
3 CHAIRMAN VIVONA: Okay.  
4 MR. HREBIEN: I have a question.  
5 So when you put this on air, it looks  
6 like there's a whole lot of overlap with the  
7 existing coverage. Has that caused interference in  
8 terms of the cell?  
9 MR. MENIO: No, it shouldn't. The  
10 cells are actually -- they integrate with each  
11 other, and you can control that with downtilts and  
12 --  
13 MR. HREBIEN: Okay.  
14 MR. MENIO: -- optimization --  
15 MR. HREBIEN: All right.  
16 MR. MENIO: -- of the existing  
17 network.  
18 MR. HREBIEN: Okay.  
19 MR. NEWMAN: Are the panels that are  
20 going on the new tower identical to the ones that  
21 were there before or the ones that are on the  
22 temporary site or have they updated those since and  
23 there's like newer, better panels going up?  
24 MR. MENIO: They have been updated due  
25 to the increase of technologies that T-Mobile now

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1 offers the customers.  
2 MR. NEWMAN: So they're slightly  
3 different than what was there before.  
4 MR. MENIO: They basically look the  
5 same from, like, the common eye --  
6 MR. NEWMAN: Right.  
7 MR. MENIO: -- like, from ground  
8 level, you really won't be able to tell the  
9 difference --  
10 MR. NEWMAN: But they should function  
11 better.  
12 MR. MENIO: But they'll function way  
13 better and they'll offer more technology in a  
14 smaller bundle because it's almost the same size as  
15 what it was, but they're offering four times the  
16 services.  
17 CHAIRMAN VIVONA: So I asked earlier  
18 about the 13-inch box. That's just -- that's just  
19 the size it is?  
20 MR. MENIO: Yeah, that's just the way  
21 it's manufactured. It's really based off of that.  
22 They're quad poles, which, in essence, we're  
23 cramming four regular antennas into one antenna and  
24 then you just have the elements, the radiating  
25 elements of the antenna have to fit in that, so it's

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1 -- that's just what the specifications are. It's  
2 almost driven by the frequencies.  
3 CHAIRMAN VIVONA: Okay.  
4 MR. MENIO: So in T-Mobile's case,  
5 that's the smallest antenna that we could get to do  
6 all our technologies.  
7 CHAIRMAN VIVONA: Okay. Now, you  
8 testified that you gave testimony before many, many  
9 boards. Do you happen to know if other towns limit  
10 the size of the antenna to 12 inches?  
11 MR. MENIO: I've never heard that  
12 before, no. It's usually the height which is what  
13 they're concerned with, not the width.  
14 MS. ROMANO: Then why is that part of  
15 the code?  
16 CHAIRMAN VIVONA: It might just be a  
17 local thing.  
18 MR. SHAW: It was -- it was because  
19 when they established the standards in 1999, they --  
20 I suspect they were probably looking to see what  
21 common installations were at the time.  
22 MS. ROMANO: At that time, okay. So  
23 it's just a --  
24 MR. SHAW: I would suspect that's the  
25 reason why it has the number that it has.

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1 MR. MENIO: In my experience, from  
2 that time frame, you would probably have antennas  
3 that were much smaller because there was only like  
4 one technology that each carrier was putting out.  
5 MS. ROMANO: Okay.  
6 MR. MENIO: And a lot less load on the  
7 system as well.  
8 MR. BORSINGER: Do you anticipate any  
9 changes in the antenna or any of the configurations  
10 if they roll out the, what's it, the 5 LTE that's  
11 coming along?  
12 MR. MENIO: No, actually, I believe  
13 all that is done centrally located within T-Mobile  
14 switching, that the antennas that they're  
15 implementing in this site are capable of doing all  
16 of that and it's more of they just have to upgrade  
17 their core network computer, for lack of better  
18 words.  
19 MR. HREBIEN: Okay, so you mentioned  
20 and I know that it's the case, back in, what was it,  
21 1989 or whenever, '98, when this was originally  
22 approved, it looks like you had two different  
23 frequencies and now you've bought more bandwidth so  
24 you have four different frequencies and that's why  
25 you have to have more antennas inside each panel.

1 MR. MENIO: That's correct.  
 2 MR. HREBIEN: Okay. Just to let the  
 3 Board know what sort of the difference is, but it's  
 4 common that the frequencies are using.  
 5 MR. MENIO: Correct.  
 6 CHAIRMAN VIVONA: Will this new  
 7 antenna -- I know in your exhibit, you said a lot of  
 8 things extended out several miles further than what  
 9 is depicted on your exhibit. Will this antenna  
 10 rectify that as well for your coverage?  
 11 MR. MENIO: Not in this application,  
 12 but I believe the next one on, NJ668, kind of works  
 13 as a hand-off site for this one, so in the next  
 14 application, you'll see how --  
 15 CHAIRMAN VIVONA: Okay.  
 16 MR. MENIO: -- it all meshes. But as  
 17 far as future plans, everything is basically trying  
 18 to get back on to where we were in this area, no new  
 19 structures.  
 20 CHAIRMAN VIVONA: Right. Okay.  
 21 MR. HREBIEN: This is the one that's  
 22 further south, right?  
 23 MR. MENIO: Correct.  
 24 MR. HREBIEN: Yeah, yeah.  
 25 MR. MICHAELS: The height that's being

1 proposed here is different than the -- is higher  
 2 than what you replaced, what you're replacing.  
 3 MR. MENIO: Yeah, I believe it's like  
 4 12 or 13 feet higher than what was existing.  
 5 MR. MICHAELS: Is that because that's  
 6 the height that's available on this tower --  
 7 MR. MENIO: That is correct.  
 8 MR. MICHAELS: -- as opposed to what  
 9 was available before?  
 10 MR. MENIO: PSE&G basically "this is  
 11 what you get."  
 12 MR. MICHAELS: Okay. Thank you.  
 13 CHAIRMAN VIVONA: Okay, anybody else?  
 14 (No response)  
 15 CHAIRMAN VIVONA: Does anybody from  
 16 the public have any questions about this testimony?  
 17 Please stand, state your name and  
 18 address, please.  
 19 MS. HERR: Mary Herr, 53 Pine Street.  
 20 (Court reporter asks for spelling of last  
 21 name.)  
 22 MS. HERR: H-E-R-R.  
 23 I just want to make sure I'm under-  
 24 standing. You just have three towers servicing the  
 25 Chatham area, the one on Southern Boulevard, Sunset

1 and Spring?  
 2 MR. MENIO: That's not what's in the  
 3 whole Township, that's just within what we're  
 4 showing for this application.  
 5 MS. HERR: So how many -- how many  
 6 poles do you have servicing Chatham Township?  
 7 MR. MENIO: I wouldn't know that  
 8 number off the top of my head right now.  
 9 MS. HERR: Is there any way to find  
 10 that out, just out of curiosity?  
 11 MR. MENIO: I could easily find out  
 12 how many are in Chatham Township but it's still --  
 13 what we're looking at, no matter how many other  
 14 towers are around, they're optimized to get the best  
 15 reach that they can.  
 16 MS. HERR: So these three towers are  
 17 really a focal point for Chatham Township to service  
 18 the gaps that you're talking about?  
 19 MR. MENIO: We have to service all  
 20 gaps by the FCC, we're regulated, so this is very  
 21 important to us. Like I said, a lot of these roads  
 22 are major thoroughfares through this town, yes.  
 23 MS. HERR: So these three are pretty  
 24 much the primary focus for Chatham Township.  
 25 MR. MENIO: I don't know -- I would

1 not agree to that; I would say that we're talking  
 2 this application is primary for these roads as  
 3 described before. I'm not sure, when you say "these  
 4 three towers," which ones you're referring to.  
 5 MS. HERR: The Sunset, Southern  
 6 Boulevard and Spring.  
 7 MR. MENIO: That is only what was  
 8 shown on my exhibit.  
 9 MS. HERR: So --  
 10 MR. MEESE: So what you're saying is  
 11 there are other towers that provide --  
 12 MS. HERR: Right.  
 13 MR. MEESE: -- coverage to other areas  
 14 of Chatham.  
 15 MR. MENIO: Yes.  
 16 MS. HERR: Okay. And do you know  
 17 where those would be at, the location?  
 18 MR. MENIO: They would be within  
 19 Chatham Township but none of them are shown on this  
 20 exhibit; therefore, they can't have an impact on the  
 21 gap that this site provides.  
 22 MS. HERR: Okay. So I just -- I'm  
 23 trying to get a sense, like, if you have seven  
 24 towers and Verizon has seven towers and another  
 25 company has seven towers, you're up to 28 towers, so

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1 I'm just kind of curious how many towers, you know,  
 2 you're saying are going to be in the Township.  
 3 That's my question.  
 4 MR. MENIO: We always try to  
 5 collocate, that's our main thing; like we're saying  
 6 right now, we're going on an existing tower. Most  
 7 of the sites that I labeled, the three that you are  
 8 concerned with, they are all collocations as well.  
 9 So it's a major thing that the carriers do try to  
 10 work together --  
 11 MS. HERR: Right.  
 12 MR. MENIO: -- and limit the amount of  
 13 poles. A, just mostly it's easier and it's more  
 14 convenient for towns and it's less --  
 15 MS. HERR: Right.  
 16 MR. MENIO: -- slightly.  
 17 MS. HERR: Right. Exactly.  
 18 MR. MENIO: But --  
 19 MS. HERR: You know, that's just my  
 20 question. You want to minimize the poles and --  
 21 MR. MENIO: And in all honesty, they  
 22 try to minimize the number of towers in one area  
 23 because this is a long and lengthy process and a lot  
 24 of time and financial goes into it, so...  
 25 MS. HERR: Thank you. It just sounded

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1 like it was just three.  
 2 MR. MENIO: No, the three that I  
 3 described is just in the view.  
 4 MS. HERR: All right. Thank you.  
 5 MR. MENIO: No problem.  
 6 CHAIRMAN VIVONA: Anybody else?  
 7 (No response)  
 8 CHAIRMAN VIVONA: No? Okay.  
 9 MR. MENIO: Thank you.  
 10 MR. MEESE: Thank you.  
 11 CHAIRMAN VIVONA: Thank you.  
 12 MR. MENIO: Do you guys want to keep  
 13 this or I keep it?  
 14 MR. SHAW: We keep it until after the  
 15 application is completed and after 45 days.  
 16 MR. MENIO: Okay. So just leave it  
 17 here, is that fine?  
 18 MR. SHAW: Um-hum.  
 19 MR. MENIO: Thank you.  
 20 CHAIRMAN VIVONA: Thank you.  
 21 MR. MEESE: Our next witness is Dan  
 22 Collins.  
 23 CHAIRMAN VIVONA: Okay, we'll swear  
 24 you in.  
 25 D A N I E L C O L L I N S, Pinnacle Telecom Group,

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1 14 Ridgedale Avenue, Cedar Knolls 07927, New Jersey,  
 2 is sworn by the Board Chairman.  
 3 CHAIRMAN VIVONA: Give us your name  
 4 and spell it for the record, please, and your  
 5 qualifications.  
 6 MR. COLLINS: Sure. My name is Dan  
 7 Collins, the last name is C-O-L-L-I-N-S. My  
 8 business address is 14 Ridgedale Avenue, Cedar  
 9 Knolls, New Jersey.  
 10 MR. MEESE: Okay, Mr. Collins, if you  
 11 would give your background and experience in the  
 12 field of radio frequency emission compliance.  
 13 MR. COLLINS: Sure. I have a  
 14 bachelor's degree in electrical engineering from  
 15 City College of New York, a master's degree from  
 16 Fairleigh Dickinson, more than 40 years experience  
 17 in the wireless industry starting with AT&T and  
 18 running through Bell -- it was Bellcore, Edwards and  
 19 Kelcey, and for the last 16 years, Pinnacle Telecom  
 20 Group, for which I'm the Chief Technical Officer.  
 21 I've testified in front of more than half the Boards  
 22 in New Jersey, including this one at least three  
 23 times before, for T-Mobile and for Verizon.  
 24 MR. MEESE: I would offer Mr. Collins  
 25 as an expert in the field of radio frequency

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1 compliance.  
 2 CHAIRMAN VIVONA: Okay.  
 3 DIRECT EXAMINATION BY MR. MEESE:  
 4 Q. And Mr. Collins, you're familiar with  
 5 the standards promulgated by the Federal  
 6 Communications Commission with respect to these type  
 7 of emissions?  
 8 A. Yes, I am.  
 9 Q. And you're also familiar with the  
 10 facility that is proposed by T-Mobile here?  
 11 A. Yes.  
 12 Q. And have you reviewed the facility to  
 13 confirm that it will comply with those standards?  
 14 A. Yes, I have.  
 15 Q. And what have you determined?  
 16 A. Yeah, and just to briefly explain, the  
 17 FCC has a standard for safe continuous human  
 18 exposure to the radio frequency emissions from  
 19 antennas, and at the same time, the FCC adopted the  
 20 standard and made publicly available a set of  
 21 engineering formulas to calculate the radio  
 22 frequency levels from proposed antennas because you  
 23 can't measure what isn't there yet, and the formulas  
 24 are intentionally conservative so that if the result  
 25 says we're in compliance, we're going to be in

1 **compliance by an even greater margin than the**  
 2 **calculations indicate, and in this case, expressing**  
 3 **the radio frequency level as a percentage because**  
 4 **that's the easiest plain-English way to describe**  
 5 **whether we're in compliance or not, you can describe**  
 6 **radio frequency levels as a percentage and if the**  
 7 **percentage is greater than a hundred, you're over**  
 8 **the limit and out of compliance. In this case, the**  
 9 **maximum effect of the radio frequency energy coming**  
 10 **out of these proposed antennas is actually only**  
 11 **about 0.03 percent of the FCC's limit. It works out**  
 12 **to 2,900 times below the limit and rather**  
 13 **comfortably in compliance.**

14 **Now, for record purposes, the State of**  
 15 **New Jersey also has a law called the Radiation**  
 16 **Protection Act. The Radiation Protection Act tries**  
 17 **to echo the FCC standard and came up a little short.**  
 18 **They left off a paragraph that made the FCC standard**  
 19 **as strict as it is and so, in New Jersey, we have a**  
 20 **standard for radio frequency exposure that's five**  
 21 **times less protective of human beings than the**  
 22 **federal standard. So for record purposes, if you're**  
 23 **in compliance by the FCC by a factor of 2,900,**  
 24 **you're in compliance with the state's limit by 2,900**  
 25 **times 5 or 14,500. The radio frequency level is**

1 outlets in the room here. And when you emit that  
 2 kind of electromagnetic energy into the air, you've  
 3 actually got a more magnetic field than electric, so  
 4 you're subject to a magnetic field and the question  
 5 is, you know, is it safe or not, and Forbes  
 6 magazine, actually, in 1998 or so had an article  
 7 about things to worry about and things not to worry  
 8 about and they had this little interesting  
 9 statistic. They said if you stood under the lowest-  
 10 hung, highest-power power line in this country,  
 11 you'd be subject to a magnetic field that is one-  
 12 fifth as significant as the earth's magnetic field.  
 13 So if you're nervous about that, you know, you've  
 14 got to find someplace to hang out besides earth.  
 15 The answer is the two don't combine, it is apples  
 16 and oranges, and the fact is neither of them  
 17 represents a health issue for anybody at the ground.

18 By the way, the only thing to worry  
 19 about with a power line is if you get close to it,  
 20 under the right humidity conditions, if you're three  
 21 feet of a power line and it's rather humid, you can  
 22 actually arc. It's not a good thing. That's not  
 23 radiation, that's conduction, and you become a death  
 24 statistic immediately. It's not my role to talk  
 25 about conduction as an issue related to radiation,

1 **actually less significant than if one human being**  
 2 **showed up in the vicinity of the site. Human beings**  
 3 **emit roughly the equivalent of two-tenths of 1**  
 4 **percent of the FCC's limit, which is six or seven**  
 5 **times more significant than you would get from any**  
 6 **of these antennas.**

7 MR. MEESE: Any questions of Mr.  
 8 Collins?

9 CHAIRMAN VIVONA: Yeah. What did you  
 10 just say?

11 (Laughter)

12 CHAIRMAN VIVONA: That all sounds  
 13 good. What about just, since you're here, the  
 14 emissions from the power lines themselves?

15 MR. COLLINS: It's an apples-and-  
 16 oranges thing. Even though people tend to claim the  
 17 same, you know, health effects from each, none of  
 18 the health effects actually are legitimate, but you  
 19 get the same kind of, people thinking they get  
 20 headaches, et cetera. The difference is this: The  
 21 radio frequency energy that comes out of an antenna  
 22 is mostly an electric field but there's a little  
 23 magnetic component. The power lines carry, not  
 24 radio frequency energy but 60 hertz, it's a power-  
 25 line frequency, it's what you get out of the little

1 which is basically a field effect at a distance. As  
 2 long as you're three feet away from a power line,  
 3 you're not going to have that problem. The PSE&G  
 4 company doesn't let the wireless operators, I think,  
 5 even put up the antennas, they want their own people  
 6 to do it because they have that kind of safety  
 7 training.

8 CHAIRMAN VIVONA: Okay. One other  
 9 thing I'd like you to clarify is: Holding this like  
 10 this (holding phone up) puts out more what?

11 MR. COLLINS: It's a greater exposure  
 12 potential than pretty much any cellular facility in  
 13 terms of antennas in the air. The reason is it's  
 14 very low power, it's about one to three-tenths of a  
 15 watt, but you hold it right close to your ear and  
 16 there's almost zero distance. Radio frequency  
 17 energy dissipates with increasing distance, so even  
 18 though you've got a small amount of power, you've  
 19 got zero distance so you've got a potentially  
 20 greater exposure.

21 The good news is that all of the phones  
 22 sold in this country have to be tested and the test  
 23 results submitted to the FCC and if it doesn't  
 24 satisfy the FCC's exposure limit, they can't sell  
 25 them. All right? You can -- if you can get the

1 model number for any phone you're carrying, you can  
 2 go to the FCC's website or the Food and Drug  
 3 Administration has the same data on the results of  
 4 all the tests of all the phones. In general, the  
 5 simpler phones have less exposure potential and the  
 6 more elaborate phones --and here, it doesn't have to  
 7 be the smartphones. It's basically phones with  
 8 keyboards. Those phones can run maybe 90 percent of  
 9 the limit while you're using them like this. The  
 10 good news is most of the folks are doing this these  
 11 days, keyboarding.

12 CHAIRMAN VIVONA: Okay. Thank you.  
 13 So the phone is actually way -- not risky but --

14 MR. COLLINS: It's more interesting.  
 15 But it's actually no more interesting than your  
 16 cordless phones at home. It's the same technology.

17 CHAIRMAN VIVONA: Okay.

18 MR. COLLINS: So if you weren't  
 19 worried about the cordless telephone, I wouldn't  
 20 worry about these either.

21 MR. HYLAND: Can you talk about why we  
 22 can't bury the cables?

23 MR. COLLINS: Yeah. Actually, when I  
 24 was at AT&T, I was Executive Director and know the  
 25 folks who were responsible for what we used to call

1 the "TAT cables," the transatlantic telephone  
 2 cables, and back in the days of the old Bell system,  
 3 those were coaxial cables. They were not made like  
 4 the coaxial cables that you see running up to  
 5 antennas on towers these days. Those were rather  
 6 rugged, hermetically sealed and, in some cases, air  
 7 pressurized so that water didn't get in. Every time  
 8 they had to stop every ten miles or so to put an  
 9 amplifier in, there was a hermetically-sealed  
 10 amplifier, the coils on the ships had unrolled to  
 11 send the cable off, it was miles and miles and miles  
 12 of this very special, very expensive cable. Today,  
 13 it's fiber. All right? And so the fiber doesn't  
 14 suffer from the, you know, water in the vicinity,  
 15 it's got the same sort of covering as regular cable,  
 16 but that's -- it's not at all the same kind of cable  
 17 you would, say, bury between an equipment shelter  
 18 here and a tower a few feet away.

19 The other thing, you know, just while  
 20 we're here, the question about why don't we do --  
 21 "why couldn't you bury all the equipment since,  
 22 well, there are other sites that AT&T operated with  
 23 equipment actually ten stories below street level."  
 24 Those are not the usual sites. That wasn't just,  
 25 like, burying the equivalent of a little central

1 office because we wanted to hide things. That was  
 2 part of what we used to call the Dooms Day Network.  
 3 If the nuclear war hit, there were so-called  
 4 hardened sites around the country and the idea was  
 5 that those sites would continue to operate even if  
 6 they took a direct hit from a nuclear weapon. This  
 7 was the theory anyway. The sites basically were  
 8 buried, seriously concreted radio equipment rooms  
 9 buried ten feet below radio towers. They were  
 10 lattice towers. This -- you don't have water  
 11 problems underneath an area that you can build a  
 12 300-foot lattice tower and that's what those  
 13 facilities were. The closest one here is, and it's  
 14 defunct now, but it was Netcong and it's basically  
 15 on a mountain ridge, no water problems whatsoever.

16 MR. HYLAND: Thank you.

17 MR. COLLINS: And as far as I know, by  
 18 the way, that network is not in operation anymore.

19 MR. WILLIAMS: At 1 World Trade  
 20 Center, our stuff was all in the sixth-floor  
 21 basement, 1 World Trade Center, so we had tons and  
 22 tons of electrical equipment.

23 MR. COLLINS: It wasn't nuclear-  
 24 hardened, though.

25 MR. WILLIAMS: But I'm telling you, it

1 worked. It worked.

2 MR. HYLAND: We don't need nuclear  
 3 hardening.

4 MR. WILLIAMS: It didn't need to be  
 5 nuclear hardened.

6 MR. COLLINS: Okay.

7 MR. WILLIAMS: I'm just telling you,  
 8 the industry knows how to make stuff underground  
 9 work. It does, I'm sorry, it really does.

10 MR. COLLINS: Okay, it hasn't been  
 11 done in my --

12 MR. WILLIAMS: It may be expensive,  
 13 I'm not saying it isn't expensive --

14 MR. COLLINS: What was said here by  
 15 the civil engineer is --

16 MR. WILLIAMS: -- the industry knows  
 17 how to do it.

18 MR. COLLINS: It's not -- not in areas  
 19 where you might have water problems, it's -- it's  
 20 not a normal procedure. By the way, if you're the  
 21 federal government with unlimited funds and you  
 22 wanted to try that, you could do that, but it's not  
 23 the thing you like to do because there's trouble,  
 24 basically.

25 MR. WILLIAMS: Okay. Thank you.

1 MR. MEESE: Any questions of Mr.  
 2 Collins?  
 3 MR. HURRING: Yeah, I have one, just  
 4 going -- I'm back to the limits you were talking  
 5 about, like how it's so far below. What even  
 6 happens if you're, like, far above?  
 7 MR. COLLINS: I'm sorry, if what?  
 8 MR. HURRING: What happens -- so the  
 9 limits you're talking about about emission, right?  
 10 I think you said was extremely -- .00-something.  
 11 What if you're, like, at two-, three-hundred  
 12 percent, what even happens at that point? I mean,  
 13 how are those limits set? That's what I'm even  
 14 curious, like, let's say somehow something happened  
 15 where we're at, I mean, what do we even -- I have no  
 16 idea how it's set.  
 17 MR. COLLINS: Here's how the limits  
 18 were set. Medical and scientific professionals  
 19 determined that when you're exposed to radio  
 20 frequency energy that has the ability to raise your  
 21 localized body temperature by 1 degree Celsius,  
 22 that's where trouble can happen because the blood  
 23 flow is not sufficient to sort of distribute the  
 24 energy that you might receive, and so they said  
 25 "What radio frequency level causes that," and it

1 turns out different levels of different frequencies  
 2 causes that as an effect, and they said "Great,  
 3 we'll take that effect," which has a bathtub shape  
 4 to it, and a copy of that graph is in the back of  
 5 the thing here, I think Appendix A, and they said  
 6 "let's divide that by 50." They put a safety  
 7 margin, not of 10, which is normal, 50, and said  
 8 "Okay, that's the maximum permissible exposure  
 9 limit." In this case, we are, what, 2900 times  
 10 below that.  
 11 MR. HURRING: Um-hum.  
 12 MS. ROMANO: I have a question.  
 13 Can you explain what these graphs are  
 14 telling us?  
 15 MR. COLLINS: Sure. The graph you're  
 16 holding is the diagram of the antennas' vertical-  
 17 plane pattern. Let's imagine this one now. Imagine  
 18 that I'm holding the equivalent of like a  
 19 searchlight. I'm facing straight ahead, and  
 20 straight ahead in that diagram is to the right, and  
 21 below and above the maximum beam, there's less  
 22 energy. In other words, if I had a searchlight and  
 23 I'm facing right toward the Chairman here, there's  
 24 less energy that goes up or down or behind.  
 25 MS. ROMANO: So it really goes in the

1 direction that -- it goes in the direction that  
 2 you're pointing?  
 3 MR. COLLINS: It goes out there where  
 4 they -- that's where the service is created,  
 5 basically.  
 6 MS. ROMANO: So then these antennas,  
 7 like, which way are they pointing? Like, where  
 8 would this go towards?  
 9 MR. COLLINS: The 9:00 position there  
 10 --  
 11 MS. ROMANO: Yeah, 9:00.  
 12 MR. COLLINS: -- is the horizon, okay?  
 13 And below the horizon is close in at the ground and  
 14 that's where I worry about exposure. And there's  
 15 considerably less energy directed downward than, of  
 16 course, this way (indicating). The best way to  
 17 explain this is this: Let's say you've got a 20-  
 18 watt channel and it's going straight out, and if I  
 19 pulled my thumb so that the top of my thumb is right  
 20 along the horizon, the RF level at the bottom of my  
 21 thumb is already ten times lower than the 20 watts  
 22 that's at the top side of the thumb.  
 23 MS. ROMANO: Okay.  
 24 MR. COLLINS: That's how sharp these  
 25 antennas are vertically.

1 MS. ROMANO: But is it going to be in  
 2 like a circular -- like, your thumb is just going  
 3 this way (indicating), but is it technically, like,  
 4 that all around the pole or is one direction, like,  
 5 whichever -- because there's three antennas, right?  
 6 So then do you have like three of these pointing  
 7 (indicating)?  
 8 MR. COLLINS: There's more than three  
 9 antennas, there's three sectors of antennas, right?  
 10 MS. ROMANO: All right, six antennas.  
 11 MR. COLLINS: Each sector covers one-  
 12 third of the horizon, so you would have that  
 13 pattern, that's this pattern, but you would also  
 14 have that pattern roughly equivalent to 120 degrees  
 15 out. It actually only covers about 65 degrees but  
 16 there's some dribble that, effectively, three of  
 17 them together cover the 360-degree horizon.  
 18 MS. ROMANO: Okay.  
 19 MR. COLLINS: All right? Our  
 20 assumption, by the way, when we do the calculations  
 21 is that no matter where you are around this  
 22 facility, that pattern is around your head, that's  
 23 the worst case.  
 24 MS. ROMANO: Okay.  
 25 MR. MEESE: Any other questions of Mr.

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1 Collins?  
 2 (No response)  
 3 CHAIRMAN VIVONA: All right, no other  
 4 questions from the Board --  
 5 MR. HREBIEN: I'll just make a  
 6 statement. I read through the report and he  
 7 referred to it, the FCC Office of Engineering and  
 8 Technology OET Bulletin 65 is the document which is  
 9 used to do these calculations, and the calculations  
 10 are shown out of that report on Page 15 of Mr.  
 11 Collins' report and I'm satisfied that he used the  
 12 FCC-designated formulas to do his work.  
 13 CHAIRMAN VIVONA: Okay.  
 14 MR. HREBIEN: So...  
 15 CHAIRMAN VIVONA: Thank you.  
 16 All right, at this time, any questions  
 17 from anybody in the public about Mr. Collins'  
 18 testimony?  
 19 (No response)  
 20 CHAIRMAN VIVONA: None heard.  
 21 MR. MEESE: Thank you, Mr. Collins.  
 22 MR. COLLINS: Thank you.  
 23 MR. MEESE: Our last witness is Chris  
 24 Nevill.  
 25 Stand up and raise your right hand.

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1 MR. NEVILL: Sure.  
 2 CHRISTOPHER NEVILL, Avoca Engineers  
 3 & Architects, LLC, 242 Old New Brunswick Road,  
 4 Piscataway, New Jersey 08854, is sworn by the Board  
 5 Chairman.  
 6 CHAIRMAN VIVONA: Please state your  
 7 name and spell it for the record and give us your  
 8 qualifications.  
 9 MR. NEVILL: It's Christopher Nevill,  
 10 last name's N-E-V, as in Victor, I-L-L. I have a  
 11 Bachelor of Science in civil engineering from The  
 12 Citadel, I have over 28 years experience in civil  
 13 engineering, site planning and planning, I'm a  
 14 licensed Professional Engineer and a licensed  
 15 Professional Planner in the State of New Jersey, and  
 16 I've appeared before over 200 Boards throughout the  
 17 State of New Jersey.  
 18 CHAIRMAN VIVONA: Okay, and are you  
 19 appearing as a planner or an engineer?  
 20 MR. NEVILL: Appearing as a planner.  
 21 MR. MEESE: And I would offer Mr.  
 22 Nevill as an expert in the field of land use  
 23 planning.  
 24 CHAIRMAN VIVONA: Okay, thank you.  
 25 DIRECT EXAMINATION BY MR. MEESE:

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1 Q. Now, Mr. Nevill, you're familiar with  
 2 the application that has been submitted by T-Mobile?  
 3 A. Yes, I am.  
 4 Q. And you're also familiar with the  
 5 Chatham land use ordinances?  
 6 A. Yes, I am.  
 7 Q. And you're also familiar with the  
 8 procedural aspect of this case, be it that this was  
 9 a former T-Mobile facility that was taken off the  
 10 air due to the PSE&G tower replacement program and  
 11 T-Mobile is now seeking to return to the site?  
 12 A. Correct, there was the previous  
 13 granting of a variance for this particular property  
 14 for T-Mobile in, I believe, 1999.  
 15 Q. And in this application, there was  
 16 originally a question whether or not a use variance  
 17 was required for this facility given the fact that a  
 18 use variance had previously been granted, and under  
 19 the Puleio case, we took position that a use  
 20 variance isn't required because this was a variance  
 21 already received by the applicant; is that right?  
 22 A. Yes, in Puleio, they discussed that,  
 23 basically, there are three ways that you can zone  
 24 something: It can be permitted in the zoning  
 25 ordinance, it can be granted by a variance

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1 application, as this application was, or it can be  
 2 considered an expansion of a nonconforming use, but  
 3 we're dealing with something that has previously  
 4 been permitted at this particular site and it's just  
 5 that the principal structure, if you will, the  
 6 utility towers, has been replaced and so, therefore,  
 7 T-Mobile is currently replacing their equipment back  
 8 at the property.  
 9 Q. All right. We've also identified that  
 10 there's a variance for the width of the antenna, 13  
 11 inches rather than 12 inches?  
 12 A. Correct.  
 13 Q. And also a variance for the height of  
 14 the antennas; even though the antennas are not  
 15 taller than the tower structure itself, the antennas  
 16 are taller than the height limitation in the zone,  
 17 even though the tower is not as tall as permitted  
 18 for towers under the conditional use ordinance.  
 19 A. Correct, under the conditional use  
 20 ordinance, you can have a tower up to 150 feet tall.  
 21 This existing tower is 141 feet tall. The proposed  
 22 top of the antennas is 138.3, but in the previous  
 23 variance application for this site, there was -- the  
 24 height was granted at 115 feet, so we do have a  
 25 change in height, but again, it's a -- it could

1 somewhat be considered a C variance because this  
2 isn't -- this isn't the principal structure, the  
3 principal structure is the tower itself, our  
4 antennas are attached to that principal structure,  
5 so it wouldn't be a D-6 height variance.

6 Q. And also, the applicant's seeking site  
7 plan approval together with conditional use approval  
8 under the code.

9 A. Correct.

10 Q. And based upon the testimony that you  
11 heard tonight, do you believe that the Board can  
12 grant that relief?

13 A. Yeah, in my opinion, they can. Again,  
14 under Puleio, what the Board needs to take a look at  
15 is really just the negative criteria in this  
16 application and we have some exhibits to address the  
17 visual aspect because I believe, in this  
18 application, it's really -- the visual part of the  
19 application addresses the negative criteria.

20 Q. Do you want to mark those and discuss  
21 them?

22 A. Certainly.

23 MR. SHAW: We're up to A-13, aerial  
24 photo.

25 MR. NEVILL: A-13, an aerial photo of

1 the surrounding area and the subject site.

2 (Aerial photograph of the subject site and  
3 surrounding area is marked as Exhibit A-13.)

4 MR. NEVILL: And I have four boards so  
5 I'll just mark them A-14, A-15 and A-16 and 17.

6 (Photo boards showing existing and proposed  
7 conditions are marked as Exhibits A-14 through  
8 A-17.)

9 A. As I stated, on A-13, this is an  
10 aerial photo from a Google Images, if you will, of  
11 the surrounding area. On the lower right-hand  
12 corner of Exhibit A-13, you can see River Road, and  
13 on the upper left-hand corner, you can see Fairmont  
14 Avenue and also Sunset Drive and Nicholson across  
15 through the -- somewhat through the middle of it.  
16 We have the PSE&G 150-foot-wide right-of-way  
17 delineated and then there's a red circle around the  
18 PSE&G tower that we're planning to put our equipment  
19 on. There are some yellow dots around and they  
20 correspond with the exhibits.

21 A-14 is -- there's two parts to each  
22 exhibit. On the left-hand side, it's an existing  
23 photograph; in this particular case, it is from  
24 Nicholson Drive so it would be the yellow dot that  
25 I'm pointing to on A-13, and on the right-hand side,

1 there is the simulation. And on the left-hand  
2 existing photograph, obviously, you can see the  
3 existing tower, and on the right-hand side, we have  
4 simulated the addition of the six antennas at the  
5 top, the cabling along the tower, and in this  
6 particular view, you can just see the top of the  
7 proposed equipment shed. The simulations were  
8 completed when there was discussions about doing the  
9 equipment shed. You can see slightly behind the  
10 bushes the fenced compound area, so if we were only  
11 talking about the equipment cabinets behind the  
12 compound area, we'd be talking about only that  
13 fenced section down at the bottom. I'll pass these  
14 around so it will be easier to see.

15 Exhibit A-15, again, is the same  
16 orientation of an existing photo on the left and a  
17 proposed simulation on the right.

18 A-15 would be the yellow dot towards  
19 the top of A-13, it's on Sunset Drive looking up the  
20 hill at the proposed subject site. In this  
21 particular view, you would not see any of the base  
22 equipment cabinet due to shrubbery and all that is  
23 located along the right-of-way down towards the  
24 bottom, so it's just you're going to see the  
25 antennas and cabling in the simulation on the right-

1 hand side of Exhibit A-15.

2 Exhibit A-16 is from River Road; again,  
3 there's the yellow dot down on the lower right-hand  
4 corner of Exhibit A-13. From this particular view  
5 again, you only see the top of the tower, you  
6 wouldn't see the base area, so in the simulation  
7 again, would you not see any of the base  
8 installation, it's only the antennas and the cabling  
9 shown in the simulation.

10 And finally, A-17 is just from the end  
11 of Nicholson Drive in the center of the Exhibit  
12 A-13, there's a yellow dot, it's off the existing  
13 right-of-way in the left-hand photo. In the right-  
14 hand simulation, again, we show the compound area  
15 and the retaining wall with a shelter within it.  
16 Again, if it was just the equipment cabinets, the  
17 equipment cabinets would be lower than the fenced  
18 area so we'd really just be looking at the fenced  
19 compound in that particular view.

20 MR. SHAW: And that fenced compound is  
21 the fence compound that was originally proposed and  
22 not the current discussion about having it built  
23 down?

24 MR. NEVILL: Right, it would be a  
25 little bit smaller in size, obviously, because, as

1 the discussion was, that the compound would be  
 2 larger for the shelter than it would be for the  
 3 equipment cabinets, outdoor equipment cabinets.  
 4 It's my opinion as we look at this to  
 5 address the negative criteria that the simulations  
 6 show that this doesn't rise to a level of a  
 7 substantial detriment, even when it's particularly  
 8 addressing the width of the antennas, a 12-inch  
 9 width versus a 13-inch width. I believe that at a  
 10 height of 138 feet, it would be really difficult to  
 11 discern the difference of 12 inches versus 13  
 12 inches, it's such a de minimis change, and at that  
 13 distance, it would be difficult for someone to  
 14 notice the difference between the two.

15 So this site, notwithstanding the  
 16 deviations from the conditions of the conditional  
 17 use, this site still remains particularly suited for  
 18 this application and, you know, even with the change  
 19 in the height from 115 feet to the higher height, as  
 20 has been addressed in the other witnesses, this is  
 21 the height that we could obtain from PSE&G. Our  
 22 alternative sites would be -- the only alternative  
 23 heights on a tower such as this would be going  
 24 higher than the tower which we don't need or going  
 25 substantially lower, which would decrease the

1 effectiveness of this site, so this is the height  
 2 available to us and fills the coverage gap that RF  
 3 is looking to meet. So therefore, in my opinion,  
 4 the change in this use, the change in the conditions  
 5 of this use is de minimis and the Board should act  
 6 favorably upon this application.

7 **Q.** Mr. Nevill, do you have an opinion as  
 8 to whether the compound should be with the shelter  
 9 or with the cabinets?

10 **A. In my opinion, if the -- with the**  
 11 **fenced area, if the fence is going to be higher than**  
 12 **the equipment cabinets, I believe it actually**  
 13 **probably would be less of a -- less of a visual**  
 14 **impact. If you look at the view from Nicholson**  
 15 **Drive, you could see the top of the shelter versus**  
 16 **if it was all lower and just being the compound area**  
 17 **itself, it'd pretty much be behind the shrubbing**  
 18 **that runs at the end of Nicholson Drive so there**  
 19 **might be less of a visual aspect to it at that**  
 20 **point.**

21 MR. MEESE: Are there any questions of  
 22 Mr. Nevill?

23 CHAIRMAN VIVONA: Yeah. Did you guys  
 24 -- did T-Mobile need a height variance on the  
 25 original application?

1 MR. MEESE: Yes.  
 2 MR. NEVILL: Yeah.  
 3 CHAIRMAN VIVONA: So that was already  
 4 granted. And is this lot in question -- I know it's  
 5 not -- it's 60 or a hundred feet away from the  
 6 original thing. Is it still Block 62, Lot 52.  
 7 MR. MEESE: Same lot, yeah.  
 8 CHAIRMAN VIVONA: Okay.  
 9 MR. NEVILL: Yes, it runs quite a  
 10 distance.

11 CHAIRMAN VIVONA: Okay, so the  
 12 variance stays with the land. I just wanted to make  
 13 sure we were on spot there. Okay.

14 MR. MICHAELS: Yeah, I had a question,  
 15 Mr. Chairman.

16 In my letter, I was of the opinion that  
 17 a D-6 variance was needed because, first of all, in  
 18 the R-1A zone, cellular antennas and towers weren't  
 19 -- aren't listed as conditional uses, they are  
 20 conditional uses in other zones in the community and  
 21 on public lands, and therefore, it was my opinion  
 22 that a D-6 variance was needed because the maximum  
 23 height permitted in the R-1A zone is 35 feet and  
 24 you're in excess of that as well as being in excess  
 25 of the previous tower or antennas that were

1 permitted. So I think you need to talk about the  
 2 D-6 variance.

3 MR. MEESE: A D-6 variance relates to  
 4 a principal structure --

5 MR. MICHAELS: Correct.

6 MR. MEESE: -- that is either 10  
 7 percent or 10 feet above the code limit.

8 MR. MICHAELS: Right.

9 MR. MEESE: Here, we don't have a  
 10 principal structure that is exceeding, we have the  
 11 antennas, and the particular case where the --

12 MR. SHAW: Yeah, but the structure  
 13 itself is the tower.

14 MR. NEVILL: Correct, the principal  
 15 structure.

16 MR. SHAW: And the Board has never  
 17 granted any approval for that and this was  
 18 previously granted a D-6 variance in 1998, I mean --

19 MR. MEESE: Well, if I could, in 1993,  
 20 the Court found that a new monopole was, in fact, an  
 21 accessory structure, not a principal structure, that  
 22 the principal structure for a cellular communication  
 23 facility is the equipment itself. That's the  
 24 brains, it's the electronic equipment that's in the  
 25 shelter in the fence. And here, it's the antennas

1 are accessory, and I would argue that -- and this is  
2 the New Brunswick Cellular v. Old Bridge Township  
3 case.

4 MR. MICHAELS: Right.

5 MR. MEESE: And I would argue that the  
6 tower, PSE&G tower, exists today, so whether or not  
7 the Board granted it, it's there, we don't need to  
8 obtain a variance for something that is existing, so  
9 even if the tower would be principal, it's already  
10 there. Under this case, it's actually accessory.

11 The antennas are clearly accessory and not the  
12 principal -- principal structure. So therefore, I  
13 do think a variance is required for the height but I  
14 think it's a C variance and not a -- not a D  
15 variance since it's not a principal structure.

16 MR. MICHAELS: In the New Brunswick  
17 case, wasn't there another principal building on  
18 that site?

19 MR. SHAW: In fact -- yeah, there was  
20 another principal building. The language of the  
21 case referred to the fact that there was an existing  
22 building and I guess there was an existing tele-  
23 communications headquarters in that building and  
24 that this tower was accessory to what those  
25 communications facilities were in that principal

1 structure on the property.

2 MR. MICHAELS: Right.

3 MR. SHAW: So I -- respectfully, I  
4 don't read that case the same way.

5 MR. MEESE: Well, I believe the -- the  
6 telephone building they're referring to in this case  
7 is actually the shelter.

8 MR. SHAW: I don't believe that that's  
9 what that case says. It talks about there being an  
10 existing building inside there which housed an  
11 existing communications network for police and fire.

12 MR. MEESE: Well --

13 MR. SHAW: Well, in any event --

14 MR. MEESE: Yeah, I think we're  
15 arguing semantics --

16 MR. SHAW: -- we can agree to  
17 disagree.

18 MR. MEESE: Right.

19 MR. SHAW: If this were to be treated  
20 as a height variance, Mr. Michaels' comment was that  
21 the proofs necessary to establish that height  
22 variance related to the fact that was there any  
23 other location or height, could this be put back at  
24 what the original height was, and the answer to that  
25 is?

1 MR. NEVILL: As I stated, that height  
2 isn't available, 115 feet is not available to us.  
3 The heights that are available are approximately 60  
4 feet above grade, which would, obviously, not  
5 provide the coverage gap; our current height, and  
6 then it would be a height above the tower. So even  
7 if we were to consider this a D-6, we'd still have  
8 the Coventry Square standard of, again, saying,  
9 notwithstanding the deviations from the condition,  
10 of the conditional use, does this site still remain  
11 appropriate, and in my opinion, I believe it does.

12 MR. SHAW: Okay. Thank you.

13 MR. MICHAELS: Thank you.

14 MR. MEESE: Any questions of Mr.  
15 Nevill?

16 MR. HYLAND: Oh, the top yellow dot at  
17 12:00 --

18 MR. NEVILL: Correct.

19 MR. HYLAND: -- what street is that  
20 taken from?

21 MR. NEVILL: This is Sunset Drive  
22 right as it curves around. It makes a slight S  
23 curve, if you will, and then --

24 MR. HYLAND: Oh, yes, I'm sorry.

25 MR. NEVILL: -- Sunset Terrace cuts

1 off so it's right after Sunset Terrace, where it  
2 cuts off.

3 MR. HYLAND: From that angle, are all  
4 the cables that are attached to the monopole, are  
5 they all on the back side of the picture?

6 MR. NEVILL: The tower -- the  
7 equipment cabinet would be on this side and the --  
8 from looking at the drawings, there would be one set  
9 of cables this way and there would be another set of  
10 cables that are somewhat pointing to the -- so there  
11 would be a set of cables pointing to the northeast,  
12 as I remember, and a set of cables pointing towards  
13 the southeast, so in that particular view, that one  
14 set of cables would be in front of the other set of  
15 cables, if that makes sense.

16 MR. HYLAND: Yeah, I was just  
17 wondering if -- if you'd taken it from the other  
18 side of the easement, the other side of the right-  
19 of-way while still on Sunset, whether the cables  
20 would have looked --

21 MR. NEVILL: I think, in that  
22 particular view, maybe as we start to go around, the  
23 trees and all would start to -- would come in a  
24 little more to play, maybe blocking that particular  
25 view. Even you see here in this aerial photograph,

1 the trees are somewhat leaning over into the right-  
2 of-way -- that area, so it might have -- I still  
3 don't think, at that distance, it would make that a  
4 substantial change in the visual aspect of the site.

5 MR. HYLAND: And have you ever heard  
6 of anybody burying the cable bridge?

7 MR. NEVILL: Burying the cable bridge?

8 MR. HYLAND: In all the past  
9 testimony?

10 MR. NEVILL: Burying the cables or  
11 burying the equipment?

12 MR. HYLAND: Burying the, yeah, the  
13 wires that come out of the fenced area and  
14 eventually attach to the monopole.

15 MR. NEVILL: I've done wireless sites  
16 for 21 years, probably in planning phases and  
17 actual, I've worked on maybe close to a thousand  
18 sites, and I've never buried cables on a -- coaxial  
19 cables on a PSE&G site or a JCP&L site due to  
20 restrictions within and not putting things within  
21 the ground, or I shouldn't say never, I think I did  
22 it once because I did one of the first JCP&L sites  
23 and I think that might have been the last time they  
24 allowed us to bury some cables on the other tower,  
25 and so soon afterwards, the utility companies no

1 longer allowed it. For equipment, I know of one  
2 site, it was in -- it's in Madison at the watertank,  
3 it was a Verizon Wireless site, it was probably  
4 built late '80s, early '90s, it had such problems  
5 with the humidity and other things, it was the last  
6 site Verizon Wireless ever built underground. I  
7 actually believe they've removed it from  
8 underground, but I think if you go today to the  
9 watertank site, they now have one building that has  
10 multiple carriers in it and Verizon Wireless is one  
11 of the carriers in it. So that's the only site I  
12 ever knew that had equipment on the ground.

13 MR. HYLAND: So there's one shed, for  
14 lack of a better term, and multiple carriers share  
15 that one shed?

16 MR. NEVILL: If you go to the  
17 watertank site that's across from -- where all the  
18 farms are on Route 24 or Old Route 24, if you will,  
19 there was one particular building that was built and  
20 I believe it has four carriers at four or five  
21 locations within it. It was custom built so that  
22 all carriers could fit in one particular shed. It's  
23 one of the probably only two or three sites I know  
24 that was built that way.

25 CHAIRMAN VIVONA: Yeah, I've seen

1 that. It's a big building, though, it's not --

2 MR. NEVILL: Yes, it's a very big  
3 building.

4 CHAIRMAN VIVONA: It's not a shed.

5 MR. NEVILL: Because it's -- it might  
6 be 20, 30 feet deep and it is -- might be 50, 60,  
7 feet wide. It's a big building.

8 MR. HYLAND: Okay.

9 CHAIRMAN VIVONA: I think the only --  
10 the reason why burying sticks out in our mind is  
11 because of Buxton Road, but that's not a power pole,  
12 that was the watertank, and they said that they  
13 could bury the wires to, you know, instead of a  
14 cable bridge from their compound to the watertank,  
15 they could bury those wires, but that's not a power  
16 pole. New Jersey American Water has different  
17 standards than the power company.

18 MR. HYLAND: Yeah, but going back to  
19 the point you made and I guess they'll say it's a  
20 clearance problem, it would be a lot better to run  
21 that cable bridge two feet off the ground than ten  
22 feet off the ground from a visual perspective  
23 because it would be a lot less noticeable, but I  
24 guess they wouldn't be able to get all around their  
25 pole to really be able to investigate it thoroughly.

1 CHAIRMAN VIVONA: Right. And the  
2 vermin can get up and chew it.

3 MR. HYLAND: Ah, two feet.

4 MR. NEWMAN: It would be -- it would  
5 be visually in this instance, but when we get to the  
6 next one, it wouldn't really make sense because  
7 where it's kind of out in the open, you have people  
8 coming, jumping over it.

9 MR. HYLAND: The three-foot boxwoods  
10 come into play and it makes the jump a lot more  
11 exciting. If you miss, you might toast.

12 MR. MEESE: Any other questions of Mr.  
13 Nevill?

14 CHAIRMAN VIVONA: I don't think so,  
15 I'm good, I just would like to point out that on his  
16 pictures that were handed out, of course, they had  
17 the shed, that you wouldn't see the shed, and they  
18 didn't depict the reverse of the layout where the  
19 high side of the platform is buried as opposed to  
20 being raised up at the bottom, so for the record,  
21 those were reversed.

22 MR. NEVILL: Correct.

23 CHAIRMAN VIVONA: And in those  
24 pictures, I couldn't really see, but did you show  
25 the -- was there a coloration on the coax going up?

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1 MR. NEVILL: It was shown as black.  
 2 CHAIRMAN VIVONA: Shown as black,  
 3 okay.  
 4 I don't have any other questions for  
 5 Mr. Nevill. If anyone else doesn't, anyone from the  
 6 public have any questions about Mr. Nevill's  
 7 testimony?  
 8 (No response)  
 9 CHAIRMAN VIVONA: None heard.  
 10 Okay, Mr. Meese.  
 11 MR. MEESE: Sure, just a brief  
 12 summation.  
 13 T-Mobile's looking to do what they said  
 14 they wanted to do back in 2012, which is leave the  
 15 site temporarily, go to the temporary site at the  
 16 park until such time as PSE&G replaced the pole and  
 17 then they would come back. Now they're seeking to  
 18 come back, essentially at the same location where  
 19 they originally were with a very similar design, and  
 20 the DEP can't wait to get us out of the park, so we  
 21 would ask the Board to approve the application so  
 22 that we can move forward to reconstruct this  
 23 facility and decommission the facility at the park  
 24 and restore the park to park purposes.  
 25 CHAIRMAN VIVONA: Okay.

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1 MR. BORSINGER: I just -- are we  
 2 approving a D variance on the height or a C  
 3 variance?  
 4 MR. SHAW: As far as I'm concerned,  
 5 we're treating it as a D-1 height variance.  
 6 MR. BORSINGER: D-1, okay.  
 7 MR. SHAW: And they did present  
 8 proofs, provided that testimony too.  
 9 CHAIRMAN VIVONA: Okay, we don't have  
 10 any conditions on this, correct?  
 11 MR. SHAW: I guess the only condition  
 12 really would be if you want to discuss which of the  
 13 numerous colors that they're going to have and that  
 14 we also would request that if the carrier can have  
 15 the coaxial cable manufactured a color to be more  
 16 compatible with the color of the pole rather than  
 17 black, that would be a condition of approval.  
 18 CHAIRMAN VIVONA: Okay.  
 19 MR. WILLIAMS: And also that they're  
 20 going to dig into the --  
 21 MR. SHAW: Well, I think they've  
 22 already -- they've already said that --  
 23 MR. WILLIAMS: Okay, fine.  
 24 MR. SHAW: -- that was going to be  
 25 what they were going to do. I'll specify that.

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1 MR. WILLIAMS: And also there will be  
 2 no air-conditioning required.  
 3 MR. SHAW: Yes, they've already  
 4 specified that in the proofs but we'll put that.  
 5 MS. ROMANO: And --  
 6 MR. WILLIAMS: The color of the  
 7 barrier is --  
 8 MR. BORSINGER: I thought the color  
 9 that they had in the rendering looked reasonable.  
 10 MS. ROMANO: Yeah, like a dark brown.  
 11 CHAIRMAN VIVONA: Was that the dark  
 12 brown or a light brown? You said you had three  
 13 colors. What was depicted?  
 14 MR. HURRING: I think brown.  
 15 MR. HYLAND: We'd like it to change  
 16 color to match the scenery. White when there's snow  
 17 on the ground --  
 18 MR. NEVILL: I think that's closer to  
 19 the lighter brown.  
 20 CHAIRMAN VIVONA: All right, the  
 21 lighter brown?  
 22 MR. WILLIAMS: That's pretty nice.  
 23 CHAIRMAN VIVONA: I liked it.  
 24 MS. ROMANO: Yeah.  
 25 CHAIRMAN VIVONA: Lighter brown.

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1 MR. MEESE: Lighter brown fence?  
 2 MR. NEVILL: It should match the photo  
 3 sims.  
 4 MR. MEESE: Are we doing outdoor  
 5 cabinets?  
 6 CHAIRMAN VIVONA: Outdoor cabinets.  
 7 MS. ROMANO: And PSE&G said there  
 8 can't be any sort of trees or low trees anywhere?  
 9 MR. SHAW: We did have, on another  
 10 application in a more visible location, they agreed  
 11 to put boxwood up to soften the appearance of the  
 12 wall. I don't know if that's -- that might be an  
 13 issue with the other application but I'm not sure  
 14 if, given the way the location of where this is --  
 15 CHAIRMAN VIVONA: Yeah, and the  
 16 terrain was really heinous too, it was all rock. I  
 17 think if you plant it there, it wouldn't last  
 18 because you have no one to maintain it.  
 19 MS. ROMANO: Okay.  
 20 MR. HYLAND: It would be highjacked by  
 21 those road farmers up there.  
 22 CHAIRMAN VIVONA: Okay, well, at this  
 23 point, I think we can bring it up for a motion with  
 24 those two conditions, light brown fence and what was  
 25 the second thing?

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1 MR. SHAW: They're going to be  
 2 reviewing with the manufacturer whether --  
 3 CHAIRMAN VIVONA: Right.  
 4 MR. SHAW: -- they can have the  
 5 coaxial cable manufactured in a color which is not  
 6 black.  
 7 CHAIRMAN VIVONA: Yeah, sort of --  
 8 hopefully like a gray so that it blends in with the  
 9 pole, not a white because that's just opposite  
 10 black.  
 11 MR. MEESE: Right. And just to  
 12 confirm, we're looking at something manufactured  
 13 rather than painted for two reasons.  
 14 CHAIRMAN VIVONA: Exactly.  
 15 MR. MEESE: PSE&G won't allow the  
 16 painting and, frankly, you don't want the painting  
 17 because it chips and --  
 18 CHAIRMAN VIVONA: Right.  
 19 MR. MEESE: -- it looks awful after a  
 20 while.  
 21 CHAIRMAN VIVONA: Okay. If everyone's  
 22 satisfied with that, we can have a motion with those  
 23 conditions.  
 24 MR. WILLIAMS: I move that we approve  
 25 the variance with those conditions.

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1 CHAIRMAN VIVONA: Okay, could I have a  
 2 second, please?  
 3 MR. HYLAND: I second.  
 4 MR. SHAW: Actually, since you're an  
 5 alternate, you can't second it --  
 6 MR. HYLAND: Damn.  
 7 MR. SHAW: -- because we've got a full  
 8 Board.  
 9 CHAIRMAN VIVONA: You can third it.  
 10 MR. NEWMAN: I second it.  
 11 CHAIRMAN VIVONA: Okay. Roll call,  
 12 please.  
 13 MS. TSIMBOUKIS: Yes. Mr. Vivona?  
 14 CHAIRMAN VIVONA: Yes.  
 15 MS. TSIMBOUKIS: Mr. Weston?  
 16 MR. WESTON: Yes.  
 17 MS. TSIMBOUKIS: Mr. Williams?  
 18 MR. WILLIAMS: Yes.  
 19 MS. TSIMBOUKIS: Mrs. Romano?  
 20 MS. ROMANO: Yes.  
 21 MS. TSIMBOUKIS: Mr. Style?  
 22 MR. STYPLE: Yes.  
 23 MS. TSIMBOUKIS: Mr. Borsinger?  
 24 MR. BORSINGER: Yes.  
 25 MS. TSIMBOUKIS: And Mr. Newman?

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1 MR. NEWMAN: Yes.  
 2 MR. MEESE: Thank you.  
 3 (Hearing concluded at 9:25 p.m.)  
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 2 CERTIFICATE  
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 6 I, MICHELE QUICK, a Certified Court  
 7 Reporter, Registered Merit Reporter, Certified  
 8 Realtime Reporter of the State of New Jersey,  
 9 authorized to administer oaths pursuant to R.S.  
 10 41:2-1, do hereby state that the foregoing is a true  
 11 and accurate verbatim transcript of my stenographic  
 12 notes of the within proceedings, to the best of my  
 13 ability.  
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