

TOWNSHIP OF CHATHAM
ZONING BOARD OF ADJUSTMENT

IN THE MATTER OF:)
)
 NEW CINGULAR WIRELESS PCS, LLC) TRANSCRIPT
 (AT&T)) OF
 BLOCK 62, Lot 105) PROCEEDINGS
 63 BUXTON ROAD)
 CHATHAM, NEW JERSEY)
)
 APPLICATION NO. 13-62-105)
)

REGULAR BOARD MEETING

B E F O R E:
 TONY VIVONA, Chairman
 KATE KENNY
 GLEN C. NELSON
 THOMAS V. POLISE
 TINA ROMANO
 WILLIAM STYPLE
 JOHN WESTON

A L S O P R E S E N T:

STEPHEN H. SHAW, ESQ., Board Attorney
 JOHN RUSCHKE, P.E., Board Engineer
 ROBERT A. MICHAELS, P.P., Board Planner
 DR. BRUCE EISENSTEIN, Radio Frequency Expert
 KALI TSIMBOUKIS, Board Secretary

Job No. CS1818334

1 TRANSCRIPT of the stenographic notes of
2 the proceedings in the above-entitled matter, as taken
3 by and before ANGELA C. BUONANTUONO, a Certified
4 Court Reporter, Registered Professional Reporter,
5 Certified LiveNote Reporter and Notary Public of the
6 State of New Jersey, held at the CHATHAM TOWNSHIP
7 MUNICIPAL BUILDING
8 , 58 Meyersville Road, Chatham, New
9 Jersey, on Thursday, March 20, 2014, commencing at
10 7:30 in the evening.

11
12
13
14
15
16
17 A P P E A R A N C E S:

18
19 PINILIS HALPERN, LLP

 BY: JUDITH A. FAIRWEATHER, ESQUIRE

20 160 Morris Street

 Morristown, NJ 07960-4214

21 T: (973) 401-1111

 jfairweather@pinilishalpern.com

22
 --Counsel for the Applicant, New Cingular Wireless
23 PCS, LLC
24
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

WITNESS NAME	PAGE NO.
Yvonne Joseph, RF	
By The Board	5
By the Public	23
John S. Pavlovich, P.E.	
By Mrs. Fairweather	53
By The Board	56
By the Public	62
Matthew T. Murello, P.E.	
By Mrs. Fairweather	75
By The Board	85
By The Public	105

E X H I B I T S

EXHIBIT NO.	DESCRIPTION	PAGE NO.
A-38	Photograph of Wireless Communication facility on a water tower in Hanover Township	83

REQUESTS FOR DOCUMENTS AND/OR INFORMATION

DESCRIPTION	PAGE/LINE
Sound measurement without barrier	149 / 23
Sound measurement from swing set	150 / 1
Sound measurement from Kincaid Lane	150 / 4
Extension of Time	167 / 19

1 CHAIRMAN VIVONA: Cingular Wireless,
2 Buxton Road.

3 MS. FAIRWEATHER: Good evening.

4 CHAIRMAN VIVONA: Good evening.

5 MS. FAIRWEATHER: I have, what I remember
6 from where we left off last time, I'm going to have
7 my radio frequency give you a quick overview, my
8 radio frequency engineer up to answer questions.
9 He's completed testimony, I said I would bring him
10 back.

11 And after that I have a traffic expert,
12 because they asked about parking on the street and
13 emergency vehicles. Then after that I have a sound
14 expert who will talk about the dB levels of the site.
15 Then, my engineer to explain what we're doing based
16 upon the dB levels. Then I'm going to go to my
17 appraiser.

18 And, hopefully, I can get them all done
19 this evening so that next month we just have my
20 planner left and we can complete this application in
21 April.

22 Okay, Mr. Chair?

23 CHAIRMAN VIVONA: Very good.

24 MS. FAIRWEATHER: I'm going to start with
25 Yvonne Joseph, remind him that's he's still under

1 oath.

2 ...YVONNE JOSEPH, previously sworn,
3 continued testifying as follows:

4 E X A M I N A T I O N

5 CHAIRMAN VIVONA: First of all, I would
6 like to apologize for stepping out a last month's
7 meeting. I had a prior commitment. I did read the
8 transcripts so I'm up to speed on everything that was
9 discussed.

10 MS. FAIRWEATHER: Great. I was supposed
11 to bring him back for questions, and he finished
12 testimony.

13 CHAIRMAN VIVONA: Okay. So we discussed
14 the different locations and the plotting of the
15 towers. I, personally, don't have any other in-depth
16 questions.

17 Does anyone on the board have anything
18 else they want discussed or clarified?

19 MS. KENNY: I just had a question about
20 the new handout we had in our packets. Is that
21 everything from last meeting?

22 MS. FAIRWEATHER: Yes, it is.

23 THE WITNESS: That's hard copies of what
24 I went over.

25 MR. SHAW: Which one of those reflects

1 the propagation that uses the Summit site, the
2 alternate site, which was an alternate municipal
3 site, and then had a different series of gap
4 locations.

5 MS. FAIRWEATHER: Yvonne, let's talk about
6 the gap, just quickly. Kind of as an overview for
7 everyone.

8 There were questions last time regarding
9 if the antennas are placed at the water tank on the
10 Buxton Road, we have the white spots where there's
11 inadequate coverage would be covered and if the --
12 and you testified to, and Dr. Eisenstein agreed, that
13 if the antennas were in the transmission towers below
14 the ridge that the coverage wouldn't get over the
15 ridge because it was too low.

16 Can you talk about how much more coverage
17 are we talking about with the antennas on the Buxton
18 water tank versus down below the ridge?

19 THE WITNESS: Sure. As I had illustrated
20 during our last meeting, I showed that none of the
21 transmission towers located by River Road would cover
22 to the northwest side of the ridge. Specifically we
23 would still have gaps in service where if you add up
24 all the small gaps you would have about .9 miles of
25 unserved area. So ultimately that void would still

1 need to be filled eventually by another facility.
2 Whereas by placing our antennas on the Buxton Road
3 water tank we would solidify AT&T's coverage on both
4 sides of the ridge.

5 CHAIRMAN VIVONA: And being solidified
6 meaning there would be no need for any other --

7 THE WITNESS: There would be no gaps.

8 CHAIRMAN VIVONA: -- towers anywhere else
9 in your service area?

10 THE WITNESS: That is correct.

11 CHAIRMAN VIVONA: The new monopole
12 high-tension wires, there are several that are also
13 on that ridge, are those not accessible? Are they
14 already leased out? These are the ones that are
15 closer to Fairmount.

16 THE WITNESS: Correct. The ones on the
17 high tension -- the new PSE&G power towers are too
18 far south, there's over a mile from where we are and
19 they would not cover into these areas at all.

20 CHAIRMAN VIVONA: Okay.

21 MS. KENNY: Are you back on the PSE&G
22 towers?

23 THE WITNESS: We're not back on the PSE&G
24 towers.

25 MS. KENNY: Any information about when you

1 will get back on them?

2 THE WITNESS: I don't know that.

3 MS. FAIRWEATHER: I don't know.

4 THE WITNESS: We're pretty much at the
5 power company's mercy any time we get on a power
6 tower. So even if we could locate on the River Road
7 power towers, that's not to say that it's something
8 that would happen immediately because they usually
9 have to take them down in order for us to put our
10 antennas. And then when it comes to maintenance, if
11 there was ever an outage again we're at the mercy of
12 the power tower for repairing their site.

13 MS. KENNY: Same way you're at the mercy
14 of the water company for this site?

15 THE WITNESS: Yes and no. Not so much
16 because with the power towers there's high tension
17 electricity where they have to take down there's more
18 safety concerns whereas the water company is not as
19 much of an issue.

20 MS. KENNY: You still need to get
21 permission, right?

22 THE WITNESS: We need to get permission
23 but I'm talking more of a safety and affecting the
24 grid and area as far as power.

25 MS. KENNY: Is there any update on the

1 Summit site?

2 MS. FAIRWEATHER: Oh, yes. The bid went
3 out, AT&T was the second bidder to Verizon so we have
4 the second spot on the tower, yes.

5 And the bids were -- I don't know if they
6 have been awarded. They passed the resolution but we
7 don't have the lease executed.

8 CHAIRMAN VIVONA: So you're definitely
9 going to go up on that tower. And you're saying that
10 would still leave you 9/10 of a mile --

11 THE WITNESS: We would still have
12 coverage gaps along River Road, and then it wouldn't
13 do anything on the north and western side of the
14 ridge.

15 MS. FAIRWEATHER: Yvonne, at the last
16 meeting, because the Chairman left earlier, you
17 showed the New Providence site and that doesn't
18 effect this site, correct?

19 THE WITNESS: That's correct.

20 MRS. FAIRWEATHER: This site would
21 combine with it to meet?

22 THE WITNESS: Correct. And if you have
23 the supplemental packet I sent, it would be
24 represented in Map 17.

25 MR. WESTON: I have a question. There

1 has been a considerable amount of testimony to date
2 that the water tower uniquely addresses coverage
3 issue for AT&T. I'm not sure exactly how to phrase
4 this part of the question because you represent AT&T,
5 but my question or what I'm wondering is if the water
6 tower is so uniquely situated to provide coverage,
7 what are the other carriers going to do?

8 How will the other carriers provide
9 adequate coverage? Are there other people that are
10 going to be up there or if you were to -- how will
11 this gap be addressed by everyone else?

12 Are other carriers going to be coming up
13 and asking --

14 THE WITNESS: I can't speak on behalf of
15 any other carriers because everyone's network is
16 slightly different. So the maps I showed represent
17 the dots and they represent the locations for AT&T's
18 sites. I don't know where Verizon sites are or
19 T-Mobile.

20 You know, it's possible, but it would be
21 up to the board to make a decision on whether to let
22 them --

23 MRS. FAIRWEATHER: And, Yvonne, due to
24 the way each system, the frequencies they own and the
25 equipment they use, we're not all on -- everybody's

1 not on exactly the same structures because of the
2 path of their radio waves and due to many things?

3 THE WITNESS: Yes, not everyone is on the
4 same towers.

5 MR. WESTON: Oh, I understand they
6 wouldn't be on the same towers. I'm just wondering
7 there's been so much testimony about the unique
8 attributes of this particular site, how apropos the
9 provided coverage to geography in Chatham. How we
10 would -- how other carriers would solve that very
11 same problem without being on this tower at the same
12 time?

13 THE WITNESS: I can't speak on behalf of
14 --

15 MRS. FAIRWEATHER: Because he doesn't
16 search their gaps and follow them along.

17 MR. WESTON: I did preface that question
18 with it's a difficult one to ask, but it's something
19 that I was wondering.

20 MR. SHAW: Another way of asking the same
21 question is does this particular site have the
22 facility or ability to further collocate other
23 carriers?

24 MS. FAIRWEATHER: That would be a good
25 question for our civil engineer because that's a

1 structural issue and a weight issue not an RF issue.
2 But from an RF standpoint it doesn't matter if
3 anybody else is there?

4 THE WITNESS: We collocate obviously on
5 towers and water tanks.

6 MRS. FAIRWEATHER: And the existing
7 antennas won't interfere?

8 THE WITNESS: Right. As far as our
9 concerns, as far as RF interference, it would not
10 effect us.

11 MS. KENNY: I have a question to Dr.
12 Eisenstein. I remember at last meeting there was one
13 alternative that wasn't exactly like the proposed one
14 but it met a lot of their criteria, I think it was
15 the -- the one by New Providence, down by the
16 municipal site, it's the PSE&G tower.

17 THE WITNESS: JCP&L.

18 DR. EISENSTEIN: Was that PSE&G 3 or 4?

19 THE WITNESS: Four.

20 MS. KENNY: Could you just look, I think
21 it's Map 8, I believe.

22 DR. EISENSTEIN: I have Map 8 paper
23 clipped. I thought somebody would ask me about it.

24 MS. KENNY: I would just like you to talk
25 about the difference between that the existing plus

1 the N9 Summit bid, plus the PSE&G tower so you can
2 compare it to the proposed site.

3 DR. EISENSTEIN: So look at Map 8
4 compared to Map 17 I think is the one with the --
5 N9 -- so look at Map 8 compared to Map 17 and what
6 happens is that on Map 8 the coverage to the south
7 and southeast is -- I'm going to say slightly better
8 but it's almost insignificant. Where the coverage
9 falls down on Map 8 is to the northwest of the
10 proposed site and to the northeast as well. You see
11 white areas in there, and it looks to be about three
12 of them that are filled in when you look at Map 17.
13 So that's above Fairmount Avenue.

14 MS. KENNY: Right. Those three little --
15 they look like islands.

16 DR. EISENSTEIN: There's actually four
17 out there.

18 MS. KENNY: Is that a significant
19 difference between --

20 DR. EISENSTEIN: That's a judgment,
21 frankly, the board has to make.

22 I mean it's -- they're down -- so the
23 green area here is their design criteria, that's
24 negative 85. Forget the purple areas for a minute,
25 the purple is, in my opinion, an overreach from their

1 point of view. But the green is where you want to
2 design for. And if you have white in the middle of
3 the field of green it indicates a gap.

4 But the question of how substantial it
5 is, is an issue that the board has to address.

6 MR. SHAW: So, Doctor, it would be your
7 position, and essentially the board would need to
8 make fact-finding, as to whether or not the proposed
9 Map 8, the white areas, whether that constitutes a
10 significant gap in service.

11 DR. EISENSTEIN: I'm not certain it's a
12 fact. The fact is there's a gap. And there's
13 nothing in the rules or the regulations that talk
14 about a significant gap. There really is no such
15 thing. I mean a gap is a gap.

16 Now what the -- if I'm not mistaken, I
17 may be misquoting the law, but what the Supreme Court
18 of New Jersey held in one of the cases is that a gap
19 in the end of a cul-de-sac is not going to be
20 considered that important that they have to fill it
21 in, but even a tiny gap along a busy highway would be
22 something that would have to be filled in.

23 MR. SHAW: So it's an evaluation
24 question?

25 DR. EISENSTEIN: It's a subjective

1 question.

2 MR. SHAW: Right. Would it be helpful for
3 the Board to know how many users are impacted? I
4 think we heard .9 miles in that area.

5 MS. FAIRWEATHER: Just under a mile.

6 DR. EISENSTEIN: So the point with the
7 wireless system is that "users" don't mean the people
8 that live there. And I'm sorry for the residents to
9 say this, but that's not the way wireless system
10 works.

11 When I fly to Florida and I get off the
12 plane I expect my phone to work when I turn it on.
13 The people in Florida, the residents there had to go
14 through hearings like this to decide whether or not a
15 tower was there. But if the tower was not there, they
16 may be satisfied with it, but I'm not because -- so
17 what I don't know is someone that pulls into this
18 area and gets a flat tire or their car is disabled,
19 if they can't make an emergency call or can't get
20 through, whether that constitutes a gap for them.

21 So the issue that FCC put forward when
22 they put forward the original Telecommunications Act
23 of 1996 was that they wanted seamless coverage.
24 Seamless does not mean every cul-de-sac, we already
25 decided that. But when you get beyond that it's a

1 subjective judgment that boards have to make.

2 The finding of fact is in this case very
3 easy, there's a gap there.

4 MS. KENNY: A gap that is not on a major
5 thoroughfare; is that accurate?

6 DR. EISENSTEIN: It doesn't appear to be
7 but if you're the one with a broken leg or disabled
8 car it's a major difference to you.

9 That's the difference between wired
10 systems and systems that are wireless. The wireless
11 systems are supposed to work everywhere, everywhere
12 in the United States. This is the goal that the FCC
13 has so that any one of us can travel anywhere in the
14 United States and have our cell phone service.
15 That's essentially the goal.

16 MS. KENNY: And it's the same -- it would
17 be the same as their existing coverage.

18 DR. EISENSTEIN: I'm sorry.

19 MS. KENNY: If you look at Map 2 those
20 white area are there, as well. So they wouldn't be
21 losing coverage, they just would be maintaining the
22 no coverage that they have.

23 DR. EISENSTEIN: You can't lose coverage
24 by putting a new site in.

25 MS. KENNY: I guess what I'm trying to say

1 that I guess I want to get clarification on is
2 obviously we're not covered everywhere because I see
3 gaps and they're here now because there is a gap. So
4 could you -- I guess could we talk about the
5 difference between -- there's a gap there, their car
6 could breakdown and they need coverage and that's a
7 safety issue versus that's actually what's happening
8 now, that's what their experience is and, in fact, if
9 you went with Map 8 you would be increasing your
10 coverage from what it is now.

11 So does that play into it from a legal
12 standpoint at all?

13 DR. EISENSTEIN: I can't comment on
14 legality. If you look at Map 8 compared to Map 2, you
15 get enormous amount of additional coverage to the
16 south, so that satisfies the major portion of the
17 gap. So that is fairly clear. They get that same
18 coverage to the south what you see on Map 17.

19 So the only issue, the only comparison I
20 can draw between Map 8 and Map 17 -- really, frankly,
21 forget about the existing because they're trying to
22 cover a gap -- the difference between Map 8 and Map
23 17 is just that area to the north of Fairmount. So
24 those four white areas in there, there's not much
25 else that differs to the south, it looks pretty much

1 the same to me.

2 If you look down to the -- I'm just
3 noticing something, if you look down to the south
4 there's one on Map 8, there is also another white
5 area down there just above the little purple blob and
6 that's gone or reduced on Map 17. So there actually
7 is another difference that I would consider being
8 substantial.

9 MS. KENNY: Thank you.

10 DR. EISENSTEIN: There's slight different
11 sense but I say it's subjective.

12 MR. SHAW: I think what he hopes to be
13 receiving is some planning testimony on the issue of
14 whether something is substantial -- it's public
15 issues for -- it's balancing act so I am hoping that
16 when the planner presents their testimony those
17 issues will be addressed.

18 MS. FAIRWEATHER: Yvonne, just to
19 follow-up on the questions that the board is asking.
20 The white area is .9; just under a mile, correct?

21 THE WITNESS: Yes, if I were to add them
22 up.

23 MRS. FAIRWEATHER: Just under a mile and
24 where the green starts that doesn't mean there's
25 automatically coverage, that's an average. So even

1 though the white shows .9, on days when it's less
2 than 50 percent and days when it's more than
3 50 percent it varies and can easily be over a mile,
4 correct?

5 THE WITNESS: That's very correct.

6 CHAIRMAN VIVONA: So Map 8, that's with
7 the new tower in Summit?

8 MR. SHAW: New tower on the Summit and
9 proposed location.

10 THE WITNESS: That's assuming...

11 MR. SHAW: Assuming you could get
12 permission.

13 MS. FAIRWEATHER: We were asked to look at
14 the PSE&G towers that were down in Summit and we
15 looked at them. All of them require Use Variance,
16 none of them are permitted uses, and all in
17 residential areas.

18 So it's speculative, first of all,
19 whether or not we can get a lease and be a tenant on
20 it, and also speculative on whether or not it can be
21 zoned, and it doesn't give the coverage that this
22 gives.

23 MR. POLISE: Can I ask a question? We
24 keep calling it a gap but the definition of gap is
25 not -- there is no definition of gap other than it's

1 under your threshold, right, minus 85?

2 MR. SHAW: There's a requirement under
3 the Telecommunications Act that it would be in
4 violation of the Telecommunications Act for this
5 board to not approve something leaving a substantial
6 gap in coverage. And that is a very morphous phrase
7 and hopefully we will have some additional testimony
8 from the planner. I'll talk to Bob about this, as
9 well, but in terms of making the subjective
10 evaluation that the board has something to rest its
11 hat on.

12 DR. EISENSTEIN: If I can add to this,
13 their mandate by the Telecommunications Act is to
14 provide coverage that -- this is an exact quote from
15 the act, "substantially better than mediocre".

16 And what happens is that every one of
17 these cases that I have ever had, it's up to the
18 board to interpret whether or not what they're asking
19 for would give them coverage that is substantially
20 better than mediocre.

21 I can give you as an expert opinion,
22 where you see white area in there, that's below
23 mediocre because that's well below the threshold.
24 Wherever you see the white area that does not satisfy
25 that.

1 Now the Telecommunications Act leaves
2 open whether or not that has to be 100 percent,
3 whether it has to be 99.8 percent or whatever, I mean
4 it's -- but their obligation is to continue to build
5 out their system so their coverage is substantially
6 better than mediocre.

7 MS. FAIRWEATHER: And Yvonne testified
8 that if we don't use this site we have to come back
9 with another site to cover.

10 CHAIRMAN VIVONA: The white spots are
11 along Long Hill Road and goes between them all. We're
12 moving a problem from one site to another.

13 MS. FAIRWEATHER: From one neighborhood to
14 the other.

15 CHAIRMAN VIVONA: It's the same water tank
16 over there that would cover that area. But there's
17 no open land anywhere so, I mean, your alternative is
18 to find a new spot, construct a new tower but every
19 square inch of Chatham is built on.

20 MS. FAIRWEATHER: Right. And it's most
21 predominantly residential, that's correct. That's why
22 when we talk about how unique the site is it's
23 because you have a tower already built.

24 CHAIRMAN VIVONA: What about localized
25 antennas they go on telephone poles to help cover

1 those white areas; is that a possibility?

2 MS. FAIRWEATHER: The distributive
3 antenna service won't work in this area.

4 That was, I think, the first hearing?

5 THE WITNESS: Yes.

6 CHAIRMAN VIVONA: So the localized ones
7 won't work.

8 MS. FAIRWEATHER: They're mostly for
9 tunnels.

10 UNIDENTIFIED SPEAKER: Can you speak up,
11 please, so we can hear back here? Use the
12 microphone.

13 MS. FAIRWEATHER: Sure, I'm sorry.

14 MR. STYPLE: Is that a used tower by
15 Colony Pool; is that a tower that is not in use?

16 MS. FAIRWEATHER: I don't know where that
17 is.

18 CHAIRMAN VIVONA: The monopole tower or
19 electrical tower?

20 MR. STYPLE: I'm not sure what it is but
21 it's an older cell tower, with an antenna of sorts.
22 It might be for the first-aid station, I don't know.
23 It might be a first-aid station.

24 MR. SHAW: May be the first-aid station.

25 CHAIRMAN VIVONA: Anymore questions from

1 anybody up here?

2 We'll open up for any questions for
3 Mr. Joseph from the public. When you ask the
4 questions please state your name and your address.

5 MS. MESSING: Yvonne, the four white gaps
6 on Map 8, combining all four of those little gaps,
7 that's what we're talking about is 9/10 of a mile?

8 THE WITNESS: That's correct.

9 MS. MESSING: So the largest one of those
10 gaps in any one spot, how big is that one area?

11 THE WITNESS: I measured it to be about a
12 third of a mile.

13 MS. MESSING: So you know because I have
14 lived in Chatham for over 20 years and actually had
15 AT&T service for probably about 15 or 20 years and I
16 never had an issue with service anywhere so...

17 And last time I think you said that you
18 weren't aware of complaints in this area for people
19 having dropped calls or issues with the service,
20 correct?

21 THE WITNESS: I don't get them personally
22 but obviously because we're here it's because there's
23 a lack of service in the area.

24 MS. MESSING: Well the lack of service
25 just means it doesn't meet your standard criteria.

1 THE WITNESS: That's right.

2 MS. MESSING: So it doesn't mean that
3 there's a significant gap because there is coverage.

4 THE WITNESS: No, lack of service means
5 there's a significant gap.

6 MS. MESSING: But there isn't a lack of
7 service. Ms. Fairweather wouldn't let you say what
8 the service quality was in those areas because it
9 didn't meet your criteria, but I know that myself,
10 personally, and a lot of people in this room have
11 been driving around with AT&T service trying to find
12 where there were gaps and I don't know if anybody...

13 MS. FAIRWEATHER: Mr. Chair, these are
14 questions on his testimony.

15 MS. MESSING: This is a question. This
16 is a question.

17 What I'm asking is, you know, how this
18 qualifies as a significant gap?

19 MS. FAIRWEATHER: And I understand you
20 don't agree with him but he's answered.

21 MS. MESSING: I'm asking how is this a
22 significant gap?

23 MS. FAIRWEATHER: It doesn't meet the
24 criteria of AT&T and there are white spots. By
25 AT&T's definition, that's a significant gap.

1 He's said that many times and I know you
2 don't agree with him but that's been his testimony, I
3 think for the third or fourth night now.

4 MS. MESSING: I'm just trying to
5 understand how significant these combined .9/10 of a
6 mile are. Because if this gets approved I won't be
7 able to open my windows at night because there will
8 be a lot of noise from those fans that are going
9 24/7 -- don't tell me no, that's because you don't
10 live outside these.

11 CHAIRMAN VIVONA: Well, this is all --
12 it's burden of proof, I mean that's an assumption
13 that these fans are giant and noisy.

14 MS. FAIRWEATHER: And actually we're
15 going to have a noise expert come up and testify. I
16 have a traffic guy and noise guy, so those are the
17 questions. Listen to his testimony, please, and ask
18 him.

19 MS. MESSING: That's fine. I read enough
20 legal documents that said you don't have to have
21 coverage in 100 percent so...

22 Thank you.

23 MS. PETERSON: Christine Peterson, 37
24 Huron Drive. My question is my husband is on the
25 board of the Gloria Dei Church and he tells me that

1 AT&T was present on a temporary tower there and that
2 T-Mobile is getting a permanent tower there. That
3 area is in that northwest side of the ridge.

4 And I'm wondering if I -- I looked
5 through the maps did not see any analysis on whether
6 that would address those three white areas that are
7 not addressed by the other combination.

8 THE WITNESS: You're talking about the
9 temporary towers?

10 MS. PETERSON: And the at the Gloria Dei
11 Lutheran Church.

12 THE WITNESS: We're there right now.

13 MS. PETERSON: That's included in the
14 current coverage and maps?

15 THE WITNESS: Yes.

16 MS. PETERSON: You're assuming that that
17 temporary tower is going to be a permanent tower,
18 yes?

19 THE WITNESS: Yes.

20 MS. KENNY: I have a question, then,
21 because I had heard this but you remember when we
22 approved that temporary tower that that was a concern
23 of the neighbors and we assured them if that went
24 permanent they would have to have another
25 application, so is that in the pike somewhere.

1 MS. FAIRWEATHER: I think he meant
2 permanent like going back to the transmission tower.
3 That's a permanent site not temporary coming off.

4 MS. KENNY: You meant the PSE&G?

5 MRS. FAIRWEATHER: You meant it's a
6 permanent site, right?

7 THE WITNESS: Yes.

8 MS. KENNY: It's not going to stay at the
9 church?

10 THE WITNESS: Correct.

11 MS. KENNY: Because I had hear that rumor
12 around town, too.

13 MS. FAIRWEATHER: We're talking about if
14 it's a permanent site in his records.

15 CHAIRMAN VIVONA: Go ahead, ma'am.

16 MS. COOK: I'm Nancy Cook. I live at 145
17 Van Houton Avenue. I work for Town & Country
18 Properties. I have been selling real estate for
19 24 years in Chatham and a resident for 23 years in
20 the Highlands neighborhood. I just I guess two main
21 questions probably more for the Board.

22 I'm wondering what benefit is it to our
23 town? Why would our board care more about AT&T than
24 own residents that pay taxes?

25 And what benefit is it to upset residents

1 and potentially effect home values?

2 MR. SHAW: That's not a question for the
3 Board, that's public comment.

4 Later on you can make that and that goes
5 into the record. Right now you're supposed to ask
6 questions to the witness based upon what his
7 testimony was on the RF issues.

8 MS. COOK: When can we present
9 commentary?

10 MR. SHAW: It's at the conclusion of the
11 applicant's case, at which point comment, if anybody
12 has any expert witnesses or anything they want to
13 present, that's also a time for it to be done.

14 I would say, based upon what is projected
15 counsel anticipates completing their direct case at
16 the next meeting, so I would say next meeting would
17 probably be when you should be preparing all those
18 comments that you want to make and put on the record
19 for the Board to consider.

20 MS. COOK: Thank you.

21 CHAIRMAN VIVONA: Anybody else have any
22 questions of Mr. Joseph?

23 MR. SARLE: George Sarle, S-a-r-l-e. My
24 question will be in those areas that are not covered,
25 in the white areas I guess north of Fairmount, are

1 there any major roads in those areas, anything
2 considered major two-lane highway?

3 THE WITNESS: No, not highways. But we
4 still have to provide service in an area even when
5 it's not a highway.

6 MR. SARLE: When you showed the maps on
7 the last meeting you showed potential coverage and I
8 don't have benefit of those maps now, but you showed
9 potential coverage in the tower that you're competing
10 with Verizon got their's up and you're second on
11 that, and another tower that you said you potentially
12 use and it showed a better coverage down into New
13 Providence area.

14 THE WITNESS: It didn't show better
15 coverage, it showed coverage in that area.

16 MR. SARLE: It didn't show a greater
17 amount of coverage.

18 THE WITNESS: No.

19 MR. SARLE: I was sure when we looked at
20 the overlays there was a definite benefit to those
21 versus here.

22 THE WITNESS: No, because this property
23 is much higher and would provide more -- much more
24 coverage than any of the JCP&L towers that we looked
25 at.

1 MR. SARLE: What relationship -- at the
2 last meeting you mentioned that you have a
3 relationship with the water tower company and you
4 have many antennas on water towers.

5 THE WITNESS: We have antennas on many
6 towers.

7 MR. SARLE: Is there a relationship; does
8 this make it cheaper for you.

9 THE WITNESS: It's existing structure so
10 it's a more efficient option in terms of not having
11 to build a new tower.

12 MR. SARLE: Are usually these towers as
13 intimately located in neighborhoods as this tower
14 happens to be.

15 THE WITNESS: Every neighborhood is
16 different. This is an existing water tank not
17 actually a tower where there's -- there would be no
18 adverse impact because it's already existing.

19 MR. SARLE: Well that's why we're all
20 here because we think there is a very great adverse
21 impact that that will have.

22 MS. WU: Charlene Wu, W-U. I live on 38
23 Van Houton Avenue. I just moved in last October. I
24 missed the previous discussion of this issue but I
25 think is very important to me. So first I wonder do

1 you have any qualitative measure to say the coverage
2 in this area that your tower is going to enhance is
3 much lower than the other area around here?

4 THE WITNESS: I went through a
5 presentation showing all of that at the last...

6 MS. FAIRWEATHER: The answer is yes,
7 correct?

8 THE WITNESS: Yes.

9 MS. WU: Yes, and can you put in layman
10 language?

11 THE WITNESS: In summary, this facility
12 provides the best service for AT&T around the area of
13 Chatham.

14 MS. WU: Yeah, I would like to know if
15 you have any statistics?

16 THE WITNESS: I presented data and maps
17 to the board during the last 2 or 3 meetings.

18 MS. WU: Okay, I missed that.

19 MS. FAIRWEATHER: If you want to see them
20 they're in the secretary's office that you could
21 always go by and see.

22 MS. WU: Okay.

23 CHAIRMAN VIVONA: You can listen to
24 previous tapes, you can read previous transcripts.

25 MS. WU: Good.

1 CHAIRMAN VIVONA: So that's all available
2 to you but we can't restate everything that was
3 testified to, but it is available for you to look at.

4 MS. WU: Good. And I wonder if you have
5 considered any alternative location to put this
6 tower?

7 MS. FAIRWEATHER: We did. We went
8 through many alternative locations, all existing
9 structures in the search ring, and we did that at the
10 last two meetings and went through and showed how
11 they weren't as efficient and didn't work as well as
12 the proposed site.

13 MS. WU: But I guess you have considered
14 whenever you put a tower so close to a dense
15 residence, you would receive resistance?

16 MS. FAIRWEATHER: Yes, we do. It's true,
17 we do. We go into residential neighborhoods all the
18 time and that is correct, yes, we do.

19 MS. MESSING: Can I just clarify
20 something that she mentioned? Haylee Messing, 60
21 Buxton again. The alternative locations were not
22 locations that AT&T sought out; it was people in the
23 audience mentioned have you looked here, have you
24 looked here and that's what you looked at.

25 Correct.

1 THE WITNESS: Actually we've looked at
2 those power towers in the past.

3 MS. MESSING: Not this time.

4 THE WITNESS: No, we have actually looked
5 at them throughout. This application --

6 MS. MESSING: On your own, in addition to
7 the locations that residents asked about?

8 THE WITNESS: Right. The locations we
9 did not look at for meeting the search ring
10 objectives here were facilities like the Merck
11 facility, the Lucent facility, obviously they would
12 not meet the objectives here but we did look at them
13 for the tower.

14 MS. MESSING: I was so sure you said you
15 didn't look at other facilities and that's why you
16 were willing to look at the locations that the
17 people, the residents have brought to your attention.

18 MRS. FAIRWEATHER: Yvone said that he
19 didn't have propagation maps for you and you would
20 run them because you said they wouldn't work.

21 THE WITNESS: Correct.

22 MS. FAIRWEATHER: So we went back and did
23 propagation maps because that's what the board had
24 asked for.

25 MS. MESSING: Thank you.

1 MR. GREEVE: Ray Greeve, 610 River Road.
2 George, you asked a question about this,
3 JCP&L tower. There is a JCP&L tower that is on top
4 of the hill. I haven't measured it but I would argue
5 it's just as high as the water tower if not higher,
6 it's between River Road -- it's on River Road between
7 Passaic and Fairmount. What is the status of that
8 tower?

9 THE WITNESS: If you're talking about the
10 one that runs up and over the hill? We did talk
11 about that and that's over a mile south from this
12 water tank and it would not be able to serve this
13 particular area.

14 MR. GREEVE: Okay, thank you.

15 MS. KENNY: I just had a follow-up
16 question. It wouldn't be able to serve above the
17 ridge, above --

18 THE WITNESS: No, it would not be able to
19 get -- that's on this map here.

20 MS. FAIRWEATHER: Which map are you
21 talking about?

22 THE WITNESS: Any one of the maps you can
23 look and you can see that there's a black dot so a
24 site here wouldn't serve.

25 MS. KENNY: A black dot? A see a couple

1 of black dots, but the one on Fairmount?

2 THE WITNESS: If you see the last two
3 numbers are 3142, just north of that is the black
4 dot, that's the tower that he's referring to. So a
5 facility there, which I believe actually T-Mobile was
6 going on that one and they have had that reserved,
7 even if we could get on that it would not serve this
8 particular area.

9 MS. KENNY: Would it serve the area to
10 the right?

11 THE WITNESS: To the north, northeast of
12 the ridge.

13 MR. WEISGERBER: Brad Weisgerber,
14 W-e-i-s-g-e-r-b-e-r. 11 Huron.

15 You guys keep talking about putting
16 towers or antennas on existing structures. Are you
17 insinuating that that's what the town or residents
18 prefer over butting up new towers?

19 MS. FAIRWEATHER: I think you need to
20 wait for the answer from my planner. He doesn't
21 testify about the ordinances, he is just testifying
22 to how the radio waves work and the coverage and
23 these are supposed to be questions for him, but
24 that's a good question just wait for my planner.

25 MR. WEISGERBER: That's the planner's

1 question. I'm just trying to figure out who gets
2 asked what questions.

3 MS. FAIRWEATHER: I know.

4 MR. WEISGERBER: The four gaps that you
5 mentioned, you guys keep weighing how significant the
6 gap is and my question is when you add them up
7 they're .9 miles and you mentioned in the event of an
8 emergency or broken leg that doesn't mean that you
9 have to walk 9/10 of a mile to make a phone call, you
10 can walk half a block down the road and make a phone
11 call. So I think that significance is, you know,
12 really subjective term.

13 You can really -- maybe three houses
14 don't get ideal coverage but the odds of an accident
15 or an emergency or broken leg in those 9/10 of a mile
16 are minimal, in my opinion.

17 CHAIRMAN VIVONA: Sorry to interrupt you,
18 you have to ask a question and you're more than
19 welcome to make the statement at the end.

20 MR. WEISGERBER: If somebody had a car
21 accident within those white gaps could they walk less
22 than 3/10 of a mile to make a.

23 THE WITNESS: You're asking a person who
24 had a car accident to get up and walk rather than --

25 MS. FAIRWEATHER: It's subjective.

1 MR. WEISGERBER: I'm trying to pose the
2 question that it's not -- you don't have to hike a
3 mile up a mountain, you can -- you said the largest
4 gap was 3/10 of a mile, so effectively you would have
5 to get outside of 3/10 of a mile to get up and make
6 that coverage and.

7 THE WITNESS: And if you couldn't get out
8 of the car?

9 MR. WEISGERBER: So the answer is yes?

10 MS. FAIRWEATHER: He's not answering.
11 The answer is he's not going to give an opinion of
12 your hypothetical somebody in a car accident. He
13 said it's the .3, he said the coverage is .3.

14 MR. WEISGERBER: I guess it's more of --
15 the largest gap.

16 MS. PETERSON: Christine Peterson again.
17 I have read that 911 calls go to the nearest cellular
18 tower regardless of service and my cell phone showed
19 me the same thing actually on my cell phone when I
20 was in an area that does not have coverage, I have
21 Verizon, but it said no coverage 911 calls only.

22 Is that not the case?

23 THE WITNESS: I'm not sure what you're
24 asking.

25 MS. PETERSON: That if there is coverage

1 in the area and you can make a call through any
2 carrier it will, in fact, go to 911; it doesn't
3 require AT&T's network?

4 THE WITNESS: You're assuming the other
5 carriers have coverage.

6 UNIDENTIFIED SPEAKER: That's not the
7 coverage.

8 MS. FAIRWEATHER: Please let him answer.
9 He's trying to understand and answer the question.
10 Please, that's only fair.

11 THE WITNESS: You're asking if someone
12 calls 911.

13 MS. PETERSON: If 911 call depends solely
14 on having AT&T's network coverage or if it would go
15 to the coverage of another air carrier that is
16 available in that area if AT&T had a gap and another
17 carrier did not?

18 THE WITNESS: The way the phones are, if
19 it scans and can't reach it's primary carrier it is
20 possible for it to get on another carrier's network.
21 But from my recollection I'm not sure that other
22 carriers have coverage.

23 UNIDENTIFIED SPEAKER: Can you raise your
24 voice, please?

25 UNIDENTIFIED SPEAKER: We can't hear you.

1 UNIDENTIFIED SPEAKER: Speak up.

2 THE WITNESS: Yes, it's possible for the
3 phones to work.

4 MR. WEISGERBER: Yes, okay.

5 THE WITNESS: Yes, for a phone to get on
6 another carrier.

7 CHAIRMAN VIVONA: Before your next
8 question, we can't have people shouting out,
9 everything goes on the record, you all have equal
10 opportunity to speak and a right to speak, so please,
11 one person at a time.

12 MR. DREYFUS: David Dreyfus,
13 D-r-e-y-f-u-s, 29 Huron.

14 When you had mentioned about the checking
15 out the other power towers do you know if you checked
16 the towers near Sunset Drive, the power lines?
17 Because that would be, I believe, as high as the
18 water tower, if not higher.

19 THE WITNESS: Are we referring to the
20 same towers?

21 CHAIRMAN VIVONA: The same tower. Sir,
22 that's the one we were just addressing, the one at
23 the top of the ridge.

24 So his answer was.

25 MR. DREYFUS: That there would still be

1 gaps.

2 CHAIRMAN VIVONA: Yes, a .9-mile gap.

3 MR. DREYFUS: Thank you.

4 MS. PETERSON: This is just to the board.
5 We were told last meeting that the minutes/
6 transcripts would be available on line and several of
7 us searching were unable to find them.

8 MR. SHAW: They will be tomorrow. They
9 were just approved by the board this evening as
10 official minutes. They will be purchased on line.

11 MS. PETERSON: That will help everybody
12 who hasn't been able to be at the meetings.

13 MS. KENNY: That will be on the town?
14 What page, the Board of Adjustment page?

15 So if you go on the general website and
16 click on Board of Adjustment it should be.

17 MR. SHAW: Click on minutes.

18 MS. PETERSON: I found previous minutes I
19 couldn't find minutes for any of these hearings were
20 not on there.

21 MR. MATTLE: My name is Doug Mattle,
22 M-a-t-t-l-e, 332 Fairmount Avenue. This is Doughy.
23 Say "hey".

24 I have not been privy to previous
25 meetings, I have been out of town traveling and

1 stuff, but I have been following it from talking to
2 friends and trying to get up to speed on the
3 situation.

4 My question tonight, and maybe this has
5 been answered already, maybe not, is respecting there
6 seems to be a tremendous emphasis on ability to use
7 existing structures and cost concerns around that.
8 But given the concerns of the people here and the
9 proximity to that, to so many houses in residential
10 neighborhood, why is it that AT&T isn't exploring new
11 structures and new facilities that are not in such
12 close proximity to neighbors?

13 Why so much emphasis on a company with
14 such deep pockets to put something on existing
15 structure?

16 MS. FAIRWEATHER: He discussed that they
17 have to be located in the search ring. Search ring
18 is in the residential neighborhood.

19 If they build a structure it would have
20 to be on residential neighborhood. That's why it's
21 going on existing structure.

22 THE WITNESS: Literally in people's
23 backyards.

24 MS. FAIRWEATHER: Yes.

25 THE WITNESS: No a build to build

1 structures any farther from these structures.

2 MS. FAIRWEATHER: That would be in a
3 commercial area.

4 MR. MATTLE: I understand it's 50 feet
5 the other way on the other side of the ridge, you
6 couldn't construct something that would be more
7 amenable to the people in this room?

8 It seems to me this is being driven by
9 cost and, quite frankly, I don't think that's the
10 most important issue. Thank you for your time.

11 MR. SHAW: Again these are supposed to be
12 questions to the testimony.

13 MS. PETERSON: This is a question just
14 clarify Yvone's previous testimony.

15 With regards to the search ring, that was
16 looking at a single tower being able to cover that
17 area and was not considering multiple towers being
18 able to cover that same area?

19 THE WITNESS: No, just fill in the search
20 ring. No, just finding a solution to fill the search
21 ring.

22 MS. PETERSON: Can you explain more what
23 you mean by a search ring?

24 THE WITNESS: The search ring is
25 basically the areas that we're looking to put a

1 facility to meet the deficit of the current network.
2 That means where there's a gap we look to put
3 antennas on new or existing structure in order to
4 alleviate that gap.

5 MS. PETERSON: And that response seems
6 counterintuitive to me based on the maps showing N 90
7 and JCP&L 3 coverage in the same area with the
8 exception of the three gaps to the northwest.

9 CHAIRMAN VIVONA: Anyone else before we
10 move to the next witness?

11 MR. LOTFY: My name is Emad, last name is
12 Lotfy, L-o-t-f-y. Just a quick question. Last time
13 the board asked AT&T to provide the propagation
14 tools.

15 Did they do that?

16 MS. FAIRWEATHER: Yes, we did.

17 THE WITNESS: Yes, I submitted that.

18 MR. LOTFY: Can you describe more about
19 the propagation tool, how you decide which tool you
20 use for each site? Did you consider existing
21 structure? How did you find out which like how you
22 fill out gaps?

23 THE WITNESS: You're asking about the
24 propagation tool itself?

25 MR. LOTFY: Yes.

1 THE WITNESS: What I was asked to do was
2 to bring the clutter classes of this area and that's
3 what I provided which.

4 MR. LOTFY: Can you explain more about
5 the clutter classes? I don't understand.

6 THE WITNESS: It basically just
7 identifies the area as far as what types of -- what
8 topography and what kind of structures are in there,
9 for example, suburban trees, residential with trees,
10 so I provided a list to the board of all the classes
11 that were in the tool in this area.

12 MR. LOTFY: How you get this list?

13 THE WITNESS: That's provided by the
14 company that makes the tool. The company is called
15 Forsk.

16 MR. LOTFY: So surveys and see how much
17 high the trees are.

18 THE WITNESS: Actually they use known
19 data from the United States geographical survey, from
20 the Government pretty much.

21 MR. LOTFY: And that are used up-to-date,
22 its list, survey?

23 THE WITNESS: Yes, it's up-to-date.

24 MR. LOTFY: Okay. Thank you.

25 MR. SARLE: George Sarle, 8 Kincaid.

1 Just a question on the likelihood if you were to put
2 your antennas here, how often does another company
3 then come and want to put antennas on the same
4 structure?

5 THE WITNESS: I don't know.

6 MR. GREEVE: Ray Greeve, 610 River Road.
7 There's three people that have asked now about that
8 JCP&L tower on Sunset Drive or River Road, and you
9 said that it doesn't cover enough.

10 How much is not covered if you put it
11 there? Because that seems like a nice compromise as
12 far as I'm concerned because of that's JCP&L and
13 their electricity tower, it already has T-Mobile on
14 it so it's not going to bother anybody. And if the
15 gap is not all that much, you know, I don't see any
16 harm in putting them over there.

17 So my question is how much is not covered
18 when you put it there?

19 THE WITNESS: I testified also that
20 T-Mobile has that tower reserved and that that tower
21 is over a mile away from the Buxton Road site and
22 that it would not reach this area of Chatham.

23 MR. GREEVE: My question is how much is
24 not covered.

25 MS. KENNY: Is there a map for that one?

1 MS. FAIRWEATHER: Or give him a
2 percentage.

3 THE WITNESS: The white spots would still
4 exist.

5 MR. GREEVE: How big are they, square
6 mileage? What does that mean?

7 THE WITNESS: I didn't propagate it. I
8 mean right now, like I said, the tower is unavailable
9 because T-Mobile has it reserved.

10 MR. GREEVE: That's not my question. If
11 it's not available it could be made available
12 perhaps. Let's park that issue on the side.

13 How much is not covered when we put it on
14 there?

15 MS. FAIRWEATHER: They only allow one
16 carrier on. If they have a lease with them we can't
17 do it. Second of all, he has said many, many times
18 it's over a mile away and doesn't reach this area.
19 You want to know percentage. If he says it doesn't
20 reach it, it's not going to cover it.

21 Yvonne, best estimate.

22 MR. GREEVE: It's on top of the hill.
23 Your concern is the ridge behind it. It's clearly
24 covering some area that you want it to cover.

25 THE WITNESS: Again, but it's over a mile

1 away and will not cover this area.

2 MR. GREEVE: So you don't know how much
3 is not going to be covered?

4 MS. FAIRWEATHER: That's his answer to
5 you. I'm sorry.

6 MR. GREEVE: You don't know, okay.

7 MS. WEISGERBER: Katie Weisgerber,
8 W-e-i-s-g-e-r-b-e-r, 11 Huron.

9 My question to you, Mr. Joseph, if the
10 JCP&L tower and the new tower that is going up in
11 Summit, that is something existing, and the only gaps
12 that existed within this search ring, if that was the
13 only gap in service would you still pursue this
14 particular proposal, if that was the only thing that
15 you were looking to solve for in your --

16 THE WITNESS: Are you asking if --

17 MS. WEISGERBER: If Map 8 was a real map
18 and those three gaps were the only existing gaps in
19 your design criteria, would this still be something
20 you would be pursuing?

21 THE WITNESS: We would be back to try to
22 fill those gaps to the north.

23 MS. WEISGERBER: For .9 miles?

24 THE WITNESS: Yes.

25 MS. PETERSON: Christine Peterson, again.

1 Yvonne, in your previous testimony I believe you
2 testified that the place where you plan to put the
3 antenna panels on the water tower would clear the
4 tree line?

5 THE WITNESS: Yes.

6 MS. PETERSON: May I show a picture of
7 the water tower from my home to Yvonne and show him?
8 I live at the highest point in Chatham.

9 MR. SHAW: The difficulty we have, which
10 is not long-term, you should print that if you want
11 to make it part of the record.

12 MS. PETERSON: I'm happy to e-mail it or
13 print it.

14 MR. SHAW: You should identify what the
15 photograph is and then subsequently print it and
16 provide it to us.

17 MS. PETERSON: Find clarity is better in
18 the actual photograph.

19 MS. FAIRWEATHER: I have questions.
20 Where was it taken? How did you take it? What did
21 you take it with?

22 MS. PETERSON: On my iPad, from 37 Huron.
23 There's a mark in front of my home.

24 Is it your opinion that that water tower
25 is, where you're placing the antennas, above or below

1 the tree line?

2 THE WITNESS: It would clear the trees.
3 Because you're taking the picture at an angle so,
4 obviously, if you don't get up top and take the
5 pictures high you can't see it.

6 MS. PETERSON: There's no higher point in
7 Chatham to which to take it.

8 THE WITNESS: The trees are blocking you
9 so you will not never get the correct view.

10 MS. PETERSON: The cell phones are above
11 the highest point in Chatham.

12 MS. FAIRWEATHER: I'm going to --

13 CHAIRMAN VIVONA: Your highest points
14 ground level the tank is 100 feet above the highest
15 point is what he look he's saying and antennas are at
16 the top of the tower.

17 MS. PETERSON: But the trees are still
18 between myself and the antennas.

19 MS. FAIRWEATHER: I think that your
20 question in with regard to photo-I sims and what it
21 looks like and everything else, that needs to be the
22 planner. He has the photo sims. He's going to show
23 the antennas on them. So just be patient please.

24 Wrong witness.

25 CHAIRMAN VIVONA: Anybody else? Okay --

1 MR. SARLE: George Sarle, once again.
2 What happens as the trees do grow up and block that,
3 the antennas, go above the antennas, is that like --
4 that's likely to happen in that residential area
5 where there seems to be power lines and they cut them
6 and everything is taken way back, the trees don't
7 grow back.

8 MS. FAIRWEATHER: If you don't know the
9 answer, if you're not a tree....

10 THE WITNESS: I think the trees are
11 pretty mature here.

12 MS. FAIRWEATHER: You're the radio
13 frequency expert. You don't know how quickly trees
14 grow, what kind of trees they are, how quickly
15 they'll grow, correct?

16 THE WITNESS: Yes.

17 MR. SARLE: But that can happen.

18 CHAIRMAN VIVONA: He can't answer that.
19 I'm sure they'll have someone you can ask that
20 question to.

21 MR. SARLE: If the trees were above the
22 antennas would that block your signal getting out?

23 THE WITNESS: It could block the
24 antennas.

25 MR. SARLE: Because I think they could

1 grow that way.

2 UNIDENTIFIED SPEAKER: What was your
3 answer, I couldn't hear you?

4 MR. SARLE: It would block.

5 CHAIRMAN VIVONA: Okay, next witness.

6 MS. FAIRWEATHER: Yvonne, it only took
7 you three months.

8 MS. KENNY: Can I ask a question to Dr.
9 Eisenstein? I had a question about the collocation
10 because previous hearings I sort of thought it was
11 like if you build a tower other people would want to
12 collocate on it if there's spots.

13 Is that true generally? I mean you can
14 expect -- of course they don't know what another
15 carrier is doing, but generally the way it works is
16 someone gets a bid, builds a tower and other carriers
17 seek to collocate on that monopole or whatever. For
18 example, I'm thinking on Greenville Firehouse that
19 was one example where that happened.

20 DR. EISENSTEIN: Generally speaking if
21 you put up a monopole you're putting it up fairly
22 high, maybe 120 feet or some more, and they generally
23 design in such a way that it would accommodate
24 collocators. That's a raw land build, a fresh
25 monopole.

1 When we're looking at water towers, I
2 can't speak for this one because I don't know the
3 coverage of the other carriers in this area, they may
4 or may not need a site there, but in general when I
5 look at water towers around the State of New Jersey
6 there are antennas from almost all the carriers on
7 them.

8 MS. KENNY: Thank you.

9 MR. SHAW: Just so you know the question
10 we're going to be asking the engineer relative to
11 this water tower is does it have the structural
12 ability to take additional collocation on it. But
13 that's a question we'll be asking the engineer.

14 MS. FAIRWEATHER: Okay. Ready? My next
15 witness is my traffic expert.

16 John, can you please state your name and
17 then raise your right hand, please.

18 MR. PAVLOVICH: John Pavlovich,
19 P-a-v-l-o-v-i-c-h, with Jacobs Engineering.

20 MRS. FAIRWEATHER: Raise your right hand,
21 please.

22 CHAIRMAN VIVONA: Do you swear to tell the
23 truth, the whole truth and nothing but the truth, so
24 help you God?

25 MR. PAVLOVICH: I do.

1 CHAIRMAN VIVONA: Give us your
2 qualifications, please.

3 MR. PAVLOVICH: Sure. I have a
4 Bachelor's of Engineering from Stevens Institute of
5 Technology and a Master's in Transportation
6 Engineering from Purdue University.

7 I'm a licensed professional engineer in
8 the State of New Jersey. And I have testified before
9 numerous boards in Hudson, Bergen, Essex and Passaic
10 Counties.

11 I also sit on planning boards for
12 Montvale and Woodcliff Lake in Bergen County.

13 CHAIRMAN VIVONA: Have you testified
14 before this board before?

15 MR. PAVLOVICH: I have not.

16 MS. FAIRWEATHER: I offer John as my
17 engineer in with regard to traffic.

18 CHAIRMAN VIVONA: Very good, go ahead.

19 E X A M I N A T I O N

20 BY MRS. FAIRWEATHER:

21 Q. John, we had a question from the Board
22 regarding the visitation of the technician, once
23 every 4 to 6 weeks he would come. And it was
24 proposed that he would park on the side of the road
25 and go and visit the site for approximately a

1 45-minute period, during a weekday unless it was an
2 emergency, and during business hours.

3 Giving you that scenario we asked you to
4 please take a look at the existing road because it
5 does curve right around where the water tank is, and
6 to give your opinion as an expert.

7 So could you please tell us what you
8 found?

9 A. Well, I went out to the site, visited the
10 location. I had a copy of the map where the proposed
11 location is for the maintenance vehicle to be parked
12 in front of 63 Buxton Road and had measured various
13 aspects of the roadway in terms of the roadway width
14 itself, it varies anywhere from 21 to 24 feet. In
15 the area in front of the property it's roughly about
16 21 feet, give or take a few inches. And the vehicle
17 itself that is being proposed, that they use is their
18 regular automobile or pick up van, 7 or 7 and a half
19 feet wide at the widest. And with that being the
20 case with the vehicle parked at the edge of the
21 roadway that will give you a 13-foot maybe 14-foot
22 width for vehicles to pass without being obstructed
23 by the parked vehicle.

24 So in my opinion I would feel that the
25 vehicles not impose a problem to emergency vehicles

1 trying to get to the 4 or 5 houses that are just
2 north of the location where the maintenance vehicle
3 would be parked.

4 However, since it is on a curve it's not
5 the most logical place where you would like to have a
6 vehicle parked. I have looked at other options that
7 the board may want to consider if that one provides a
8 problem.

9 They can park on the tangent section just
10 north of 63 Buxton within the roadway right-of-way,
11 or they can park within the cul-de-sac at the very
12 end of the block, which is about 200 feet away, and
13 the vehicle would be out of anybody's concern of
14 being an intrusion on emergency vehicles.

15 Or the last option being, and probably
16 the most logical from the standpoint of a maintenance
17 person is parking within the easement that is already
18 granted for accessing the water tower which would
19 also be used by vehicles that are maintaining other
20 things at the water tower site.

21 So those are the three options. And if
22 the board would be acceptable to keeping the location
23 on the street the vehicle could also park another
24 three feet further off the road, it's a nice firm
25 shoulder area and that would give a 17-foot wide

1 travel lane that a vehicle could also pass by that
2 location without causing a problem.

3 There aren't many vehicles on the
4 roadway. It's what they classify the road as a
5 residential access roadway, less than 500 vehicles a
6 day, 25-mile an hour speed limit.

7 And I just won't expect it being a
8 problem with the vehicle staying where it is, but
9 there are options and that's at the discretion of the
10 board.

11 CHAIRMAN VIVONA: You stated if it pulled
12 the three feet further up, would that be on the
13 easement; it's not someone's property or grass or
14 anything?

15 THE WITNESS: That would be in the area
16 off -- I'm not quite sure of the dimensions of how
17 much of the travel width the cartway is that the
18 Township allows or requires, but since there's a
19 varied pavement I can't tell if it's a 24-foot wide
20 area. If that's the case then there's three
21 additional feet because they didn't pave that
22 additional space in front of 63 Buxton Road.

23 MRS. FAIRWEATHER: Mr. Chair, one of the
24 options is to have the vehicles parked in the
25 driveway of the house adjacent to the site where the

1 easement is so that the vehicle would not be on the
2 road at all.

3 CHAIRMAN VIVONA: It would be in
4 someone's driveway?

5 MS. FAIRWEATHER: Right, it's in the
6 easement and the property owner has given permission.

7 CHAIRMAN VIVONA: It's in the driveway.

8 MR. SHAW: It's the easement for the
9 tower.

10 CHAIRMAN VIVONA: Assume that
11 responsibility.

12 MR. SHAW: Or will assume that
13 responsibility.

14 MS. FAIRWEATHER: The property owner will
15 allow the vehicle to be parked there so it's not on
16 the street.

17 MS. KENNY: Was that a recent request or
18 that's always been like that?

19 MS. FAIRWEATHER: No, it was a recent
20 request because the board had concerns at the last
21 meeting about it being parked on the road. So we
22 went back to the property owner and explained the
23 board was concerned about the way that the road
24 turned and emergency vehicles coming in, even though
25 the technician is right there and our traffic expert

1 had said it could park on the road and emergency
2 vehicles coming in, the property owner said sure,
3 fine.

4 MS. KENNY: So since the last meeting you
5 went and contacted him, and he said okay?

6 MS. FAIRWEATHER: Yes.

7 MS. KENNY: There's no money exchanged in
8 that or renting, he's just doing it because why?

9 MS. FAIRWEATHER: I don't know. I'm the
10 attorney, I don't get into things like that or have
11 discussions like that. The request was made of him
12 he said sure.

13 MS. KENNY: But it's not the easement, I
14 mean I'm just -- I don't know if he's not home or I'm
15 just wondering, it seems like an unusual thing so I
16 was curious about why he would say okay, someone can
17 park in my driveway.

18 MS. FAIRWEATHER: He did, he said that --
19 you're asking me to give an opinion of -- a
20 conversation?

21 MS. KENNY: I just want to know if you
22 had any information about why that was okay with him.
23 Not asking you why he was thinking that or gave that
24 decision, I just want to know if he said anything to
25 you about why he would let you.

1 I mean I certainly wouldn't let you park
2 in my driveway.

3 MS. FAIRWEATHER: It's 30 minutes once
4 every 4 to 6 weeks.

5 MS. KENNY: I know, I understand.

6 MR. SHAW: As a condition of approval you
7 would provide an updated access easement from the
8 property owner indicating that he would.

9 MS. FAIRWEATHER: I don't know if he
10 would go as far as filing an easement for it but we
11 would revise the plans to show the parking spot there
12 or keep it on the road.

13 What we're trying to do is the board had
14 concerns and we're trying to address each of the
15 concerns, that's all. That's all we're trying to do
16 is address each and every concern. If you have a
17 concern about it being on the road because of
18 emergency vehicles we can park it in the driveway.
19 It's as simple as that.

20 MR. STYPLE: Can we see that in writing
21 from the owner?

22 MS. FAIRWEATHER: I'm the attorney
23 representing facts. If it's a condition of approval
24 and that's where the board would prefer us to park,
25 that's a condition of approval.

1 CHAIRMAN VIVONA: Well it's -- yes, I
2 think it's not the board's -- that we're that
3 concerned about it. If this thing goes through its
4 the neighbor who shall be concerned about it and we
5 want to, if it were to go through make it as
6 unobtrusive as possible so parking -- the concern has
7 been expressed by the residents if someone were to go
8 there and it would be a lot easier to park in the
9 cul-de-sac instead of anywhere near that corner since
10 that was a concern of the residents that if you have
11 two cars coming and a fire engine they couldn't get
12 by.

13 So whatever happens, when we get to that
14 point then I would say the parking would be more
15 appropriate in the cul-de-sac which is town-owned
16 property and it's out of the way.

17 MS. FAIRWEATHER: That would be fine.
18 We're just trying to address concerns, that's all.

19 CHAIRMAN VIVONA: I realize that. So are
20 we...

21 Any other questions?

22 MR. POLISE: Yes, I have one. I'm going
23 to do this, obviously you're going to do this in the
24 winter so the road widths that you stated, is there a
25 criteria for roads that get plowed and what is the

1 effective width of the road in the middle of the
2 winter?

3 THE WITNESS: There are no specific
4 criteria on that. What you try to do is have two
5 travel lanes of ten feet if you have two-way roadway.
6 In streets such as Buxton Road it's a dead end street
7 and the volumes are very low so in those areas, you
8 know, if it's slightly less than that it's not an
9 issue of concern from the standpoint of requiring
10 that the road width be wider.

11 I don't know what the town does in terms
12 of plowing requirements if when they plow the street
13 there are certain things that the people operating
14 the plows are supposed to provide, clearance from
15 curb to curb or entire travel way, I don't think so.
16 But whatever they do they provide ample space.

17 And I'm sure that any maintenance trucks
18 that are out doing their repairs, they're not going
19 to put their trucks in a location that is going to be
20 in jeopardy or they'll have safety condition to make
21 sure that truck isn't at risk to people providing the
22 inspection or people of the general public.

23 MR. POLISE: Second question is when they
24 put the generator on-site how do they do that?

25 THE WITNESS: I am not familiar with

1 that. I'm sure that if they bring a generator it's
2 going to be on some type of flatbed trailer, if they
3 bring the generator it's going to be backup, it's
4 going to be inside the fence. But other than that in
5 terms of the generator it's outside my area of
6 expertise.

7 CHAIRMAN VIVONA: Anyone else on the
8 board have questions?

9 Anyone from the public with questions?
10 And these are questions only about his testimony.

11 BY THE PUBLIC:

12 MS. MESSING: Yes. You went out, you saw
13 the easement? Because I didn't think there was a
14 paved area of the easement, I thought it was all
15 shrubbery.

16 So even forgetting the truck with the
17 generator, how do you get it back there.

18 THE WITNESS: The travel way I was
19 talking about is the roadway, Buxton Road itself,
20 that dimension. There's an easement of 10 feet that
21 has various types of material, not paved asphalt but
22 they do have an easement for vehicles or people to be
23 able to get to that back location.

24 MS. MESSING: So you're saying there is a
25 way to get a car back there?

1 THE WITNESS: There is a designated
2 easement. In terms of how it goes all the way to the
3 back, I didn't go all the way back, but there's some
4 chips or various things at the beginning of where
5 that easement location is, I'm assuming that's where
6 the easement probably starts.

7 But you're talking about an area of
8 16 feet deep and 7 feet, 8 feet wide that you're
9 talking about having the vehicle park.

10 MS. MESSING: Did you go there during the
11 winter?

12 THE WITNESS: Have I been there during
13 the winter?

14 MS. MESSING: Yes.

15 THE WITNESS: I was there this past week,
16 I haven't been there when there's been snow, no.

17 MS. MESSING: Because when we had snow
18 this year there was only room for one car at a time.
19 I had to pull into people's driveways to get passed.
20 And it is a concern because one of those 3 or 4
21 houses you're talking about they lost somebody due to
22 a heart condition. They have in that family they
23 have a hereditary heart ailment and they are very
24 concerned about the ability of getting emergency
25 vehicles. It's not something we take lightly. So in

1 the snow it is an issue.

2 But that generator, you do make a good
3 point, there's no way to get that generator back.
4 When we went to the site inspection they were talking
5 about ripping up all the shrubs and then replacing
6 everything for the construction. So if you're
7 talking about a temporary generator in and out, how
8 are they getting it there?

9 MS. FAIRWEATHER: I'm sorry, I think that
10 that's the issue for the engineer that is going to
11 come up. This is about the traffic and the road and
12 the width of the road and things.

13 MS. MESSING: Not about cars, okay.

14 CHAIRMAN VIVONA: I think we already
15 discussed that if something were to happen they would
16 park in the cul-de-sac not on the street.

17 MS. MESSING: You know what, that's where
18 the snow was. You could barely move your car in the
19 cul-de-sac. It was maybe an unusual winter but it's
20 things to come.

21 CHAIRMAN VIVONA: It's an unusual winter
22 and it's the same on every street in Chatham, there's
23 no place to put the snow anymore, but there's more
24 room in a cul-de-sac than on that corner even if the
25 snow was pushed to the site.

1 MS. MESSING: Little more room but not
2 for a car to be parked.

3 CHAIRMAN VIVONA: Unfortunately it's a
4 public street and they can park there. What they're
5 trying to say is that they'll park in the most
6 convenient spot for the residents or least
7 inconvenient spot for the residents and not park
8 anywhere where it would possibly block traffic.

9 Hypothetical situation, going by everyday
10 weather patterns and not extreme things or
11 superstorms or anything, we're just talking about
12 everyday weather patterns.

13 MS. MESSING: It is public, you're right,
14 but it is a residential-zoned area. And if I wanted
15 to open up a commercial business you probably
16 wouldn't allow me to do it even though I pay
17 substantial taxes.

18 CHAIRMAN VIVONA: They're not opening up
19 a commercial business.

20 MS. MESSING: It's a commercial entity.

21 CHAIRMAN VIVONA: You're talking about
22 parking a car.

23 MS. MESSING: Excuse me?

24 CHAIRMAN VIVONA: You're talking about
25 parking a car not a business.

1 MS. MESSING: I'm talking about the whole
2 process, this is a commercial entity that is looking
3 for a variance.

4 MR. NELSON: The water tower is a
5 commercial entity.

6 UNIDENTIFIED SPEAKER: They're not
7 looking for a variance.

8 MR. NELSON: How long has that been
9 there?

10 MS. MESSING: You know what, that tower
11 was there when I moved in, the cell antennas were
12 not. I never would have bought a house if I knew
13 that antennas could go up there. It was zoned
14 residential.

15 MR. NELSON: I would worry about what
16 happens if the water tower breaks.

17 MS. MESSING: Why?

18 MR. NELSON: What happens if the water
19 tower breaks?

20 UNIDENTIFIED SPEAKER: The water tower is
21 not asking for a change in zoning.

22 MS. MESSING: You know what, water is
23 water. These are electromagnetic fields.

24 CHAIRMAN VIVONA: Let's stick to the
25 questions.

1 MR. SHAW: These are traffic questions
2 and traffic questions only addressed to this witness.

3 MS. GROFF: Groff, G-r-o-f-f, 67 Buxton,
4 Patricia.

5 The easement that you are describing is
6 or is not their driveway?

7 THE WITNESS: Which situation are you
8 talking about?

9 MS. GROFF: The easement.

10 THE WITNESS: The easement is off the
11 driveway at 63 Buxton Road.

12 MS. GROFF: This is where the generator
13 or any other equipment would be taken through?

14 MS. FAIRWEATHER: I think these questions
15 regarding the easement and off the property and
16 everything else like that, that is something that
17 needs to go to the civil engineer.

18 His testimony is the street, how wide it
19 is and they can park in the driveway, he referred to
20 it as an easement in the driveway, they can park in
21 the driveway if need be.

22 That is what his testimony is. So
23 generators and access and things like that isn't him.
24 Wait until I get the civil engineer.

25 MS. GROFF: Because the driveway has the

1 easement that's what you're saying?

2 MRS. FAIRWEATHER: The car can park in
3 the driveway. Whether or not there's a legal
4 easement there or whether or not it's just an access
5 agreement, I don't know.

6 MS. GROFF: Haylee wants to know what
7 happens when they move?

8 MS. FAIRWEATHER: That's not his
9 testimony. That's not what this is. We're talking
10 about traffic right now and we're talking about
11 parking in a driveway.

12 MS. GROFF: It's not a legal easement in
13 their driveway, that's what you're saying?

14 MS. FAIRWEATHER: Right now I cannot say
15 that, that's the civil engineer. Right now I cannot
16 tell you that.

17 MS. STAGAARD: Tracey Stagaard,
18 S-t-a-g-a-a-r-d, 12 Buxton. I'm a real estate agent,
19 I grew up in Chatham and have been a real estate
20 agent over 30 years. Recently I sold one of the
21 houses at 63 Buxton sold and they had changed the
22 easement. It used to be across the front of the
23 property and now they say it's totally up their
24 driveway around the back of their house to get to
25 that tower. So those buyers had to know that when

1 they purchased the house, it's on the listing
2 agreement, it was on all of our information so it is
3 the driveway.

4 But it is a driveway, you drive all the
5 way up you take out their whole backyard because they
6 have no -- they only have a small yard, then it goes
7 behind the house and to the water tower. Just to let
8 you know.

9 CHAIRMAN VIVONA: Any other questions
10 about traffic patterns? I don't think he really is
11 the person to speak to about the easement itself; is
12 that correct?

13 MS. FAIRWEATHER: No, it's the civil
14 engineer.

15 CHAIRMAN VIVONA: So if no other
16 questions from the public and no other questions from
17 the Board about the traffic patterns, the next
18 witness.

19 Sir, do you have something?

20 Don't go away John, another question.

21 MR. PORTER: My name is James Porter, my
22 wife, Catherine, and I have lived at 3 Huron Drive
23 since 1984. I have lived through seven -- not seven,
24 several hearings before this particular group of them
25 and I have not heard word one in these hearings about

1 powering the antenna other than some speculation that
2 I believe early on about the possible use of
3 batteries.

4 CHAIRMAN VIVONA: Sir, I'm sorry to
5 interrupt you, but at this point this is just
6 questions about the traffic.

7 MR. PORTER: Is it? We've already passed
8 by the questions?

9 CHAIRMAN VIVONA: No, no, you will have
10 another opportunity but at this point these questions
11 are for this witness. You will have another
12 opportunity.

13 MR. PORTER: Another problem with these
14 hearings and it has been consistent throughout is
15 that whenever anybody from the general public does
16 want to make a comment, it's always mañana, we'll get
17 to that eventually, and I think that's happening
18 here.

19 CHAIRMAN VIVONA: We want your question
20 asked to the right person that can give the correct
21 answer.

22 MR. PORTER: My question is a very direct
23 one, it is when did the question of powering these
24 antenna become of interest to this group this panel,
25 and if it has, where is the record on it? I have not

1 heard anybody. All of a sudden I'm hearing about
2 bringing generators in.

3 My property is contiguous with the
4 property that the water company owns. The water
5 company applied to build a water tank. The papers
6 are in the files, they're in the Township. The
7 representations that were made and the
8 recommendations that were placed on the water
9 company's conduct of their property and their limited
10 use of it are clear and they have to do with
11 maintenance for water distribution purposes. They do
12 not have to do with, you know, generation equipment.

13 Now I was through one series of hearings
14 on the prior Applicant's desire to put antennae up in
15 that area of the water tower and use that property
16 for it and it was rather interesting because it was a
17 accompanied by either a suggestion or an application
18 for a 1,000 gallon propane tank at the base of a
19 million gallon water tower. That aroused some
20 concern in the neighborhood. It was not regarded as
21 a friendly gesture. And, indeed, these people have
22 been treated very kindly compared to the applicant
23 there because we had the entire neighborhood aroused
24 as they got that, they understood the danger.

25 I have no way of knowing, nor do my

1 neighbors, what on earth is going to be happening
2 with respect to powering all this or what AT&T may
3 reserve the right to come up with later. But when I
4 start hearing stories about trucks bringing
5 generators into the property that adjoins mine and we
6 have no discussion of how to power them or anything,
7 I would like to know when the board is getting that.

8 MR. SHAW: There was discussion
9 previously dealing with generator. There was a
10 discussion that it was going to be trucked into the
11 location using the same access point which was the
12 easement available to them for doing other work --

13 MR. PORTER: I have heard that this
14 hearing.

15 MR. SHAW: I believe that that was at the
16 last hearing.

17 MR. PORTER: I believe it was not. And I
18 was here and the Chairman was not so he's at a
19 disadvantage, but I was here for that and I don't
20 believe it was discussed at any length.

21 MR. SHAW: I'm sure that the record will
22 speak for itself in addition to which --

23 MR. PORTER: I hope that it does and gets
24 completed.

25 MR. SHAW: There's going to be additional

1 testimony on that subject from the civil engineer.

2 MR. PORTER: In the meantime, I won't
3 take the civil engineer's time with this series of
4 questions that I had in mind.

5 Thank you very much for your courtesy.

6 CHAIRMAN VIVONA: Any other questions
7 about traffic pattern before we move to the next
8 witness?

9 Next witness, please.

10 MS. FAIRWEATHER: Thank you, John.

11 My next witness is my sound expert.

12 CHAIRMAN VIVONA: Let's take a
13 five-minute break.

14 MRS. FAIRWEATHER: Sure.

15 CHAIRMAN VIVONA: Ladies and gentlemen
16 we'll take a five-minute break, maybe six minutes.

17 (Brief recess is now taken at 9:00 p.m..)

18 CHAIRMAN VIVONA: Call your next witness.

19 MRS. FAIRWEATHER: Yes, sir. Matthew
20 Murello. Matt, can you state your name and raise
21 your right hand.

22 CHAIRMAN VIVONA: First state your name.

23 THE WITNESS: My name is Matthew Murello,
24 spelled M-u-r-e-l-l-o.

25 CHAIRMAN VIVONA: Swear to tell the

1 truth, the whole truth and nothing but the truth, so
2 help you God?

3 MR. MURELLO: I do.

4 CHAIRMAN VIVONA: Give us your
5 qualifications, please.

6 MR. MURELLO: I'm currently the president
7 of Lewis S. Goodfriend & Associates, consulting
8 engineers in acoustics. I have been in that position
9 since 2002.

10 I'm a licensed professional engineer in
11 New Jersey and six other states. I have been
12 providing testimony since 1998 in the field of noise
13 and acoustics environmental and industrial noise.

14 I have been accepted as an expert for
15 over 100, 125 applications throughout the Northeast
16 area. I don't know if I've actually ever testified
17 in Chatham, I apologize, they all start to blend
18 together after a while.

19 I'm also a member of several commissions
20 and boards and serve applicants as well as boards and
21 commissions.

22 CHAIRMAN VIVONA: Okay, I think you're
23 qualified, then.

24 MR. MURELLO: I also have a Bachelor of
25 Science in Mechanical Engineering, my bad.

1 CHAIRMAN VIVONA: Now you're over.

2 MR. MURELLO: Thank you.

3 E X A M I N A T I O N

4 BY MRS. FAIRWEATHER:

5 Q. Matt, we provided you with site plans,
6 the specs on the equipment proposed, and asked you to
7 give us your expert opinion on the noise generated by
8 this site and if there was anything we needed to do
9 in order to make sure we comply with the New Jersey
10 D.E.P. regs and Municipal Ordinance.

11 That is correct, correct?

12 A. That is correct, yes.

13 Q. And what did you find?

14 A. The first thing we did is we, using
15 manufacturer's data on the noise for the different
16 pieces of equipment proposed for the site in addition
17 to measured data that our office has acquired at
18 other application and other sites of similar types
19 equipment we calculated what the expect sound levels
20 would be at the nearest property lines, which in this
21 case would be to the north and the west which
22 essentially is the fence line of where the existing
23 water tower structure.

24 In order to do that we also took into
25 effect -- into account, excuse me, the location of

1 the equipment on the site as well as the fact that we
2 have now moved some of that equipment a little
3 further back from that northern west property line.

4 In addition to calculating the overall
5 sound level we compared it to the applicable limits
6 of the New Jersey Department of Environmental
7 Protection, or D.E.P. Noise Regulation, as well as
8 municipal standards.

9 Now those standards quantified are
10 dependent on the receiving land use, which in this
11 case is residential, and the time of day the
12 equipment may operate.

13 So the noise regulation during the
14 nighttime hours is more stringent than daytime hours.
15 You don't want to inhibit people's ability to sleep
16 and enjoy their property at night. The nighttime
17 noise regulation on a residential property is 50 dBA
18 or decibels on A-weighted scale. We calculated sound
19 pressure levels that were slightly above that. So
20 what we recommended for the application, and will be
21 discussed in the witness after me, is a noise barrier
22 to be located around all four sides of the equipment
23 area not the water tower property.

24 This is a wooden barrier. It is solid,
25 it has what appears to be a T-111 type of plywood

1 exterior, it's 3 and a half, 4 inches thick, and it's
2 going to be approximately 9 and a half feet tall.
3 All four sides of the equipment area, again not the
4 water tower site.

5 When we enclose this 9 and a half foot
6 high noise barrier we calculate sound levels no
7 greater than about 42 to 43 dBA with all the
8 equipment operating simultaneously at the two closest
9 property lines to the north and the west. The
10 adjacent property lines to the south and the east
11 will be slightly lower than that because they're
12 further away.

13 The other question we wanted to answer
14 was will it be loud, will someone be able to hear
15 this? Because 50 dBA is meeting the code at night,
16 but how is it going to sound.

17 So to answer that question the first
18 thing we did is I visited the site on February 22nd
19 at 10 o'clock in the morning. I performed a baseline
20 sound pressure level measurement for about 30 minutes
21 on the south side of the existing water tower site.
22 During that time period the sound levels ranged from
23 about 42 to about 49 dBA. The higher sound levels
24 were when a car may have driven by or an airplane
25 flew overhead or just general nature, but the

1 background, the lowest sound level was about 42 dBA.

2 An associate of mine came back to the
3 site at about 11:30 the same night and did another
4 set of measurements on the same south property line
5 of the water tower, and that sound levels ranged from
6 about 40 to about 49 dBA.

7 So the residual, the lowest sound level
8 that existed out there that day we made measurements
9 on February 27th was about 40 to 42 dBA. We predict
10 sound levels of our equipment operating continuously
11 of no greater than 42 dBA and that's right at the
12 fence. At the houses further back at ground level we
13 expect sound levels to be even lower than that.

14 So basically, unless we're right up
15 against the fence line of the water tower site, we
16 expect the normal operating equipment of this to be
17 just barely audible over what exists presently at the
18 lowest sound level that exists out on the site now.

19 CHAIRMAN VIVONA: What will be making the
20 noise?

21 THE WITNESS: There are three types of
22 equipment out there making noise and mostly we're
23 talking about cooling fans on the equipment, small
24 fans like you have on the computer and the hum of the
25 electrical equipment. That is what we're talking

1 about, those pieces of equipment.

2 CHAIRMAN VIVONA: And the hum is
3 constant?

4 THE WITNESS: Yes.

5 CHAIRMAN VIVONA: And the fans are
6 intermittent?

7 THE WITNESS: Yes. Generally we're
8 talking about continuous noise so they're either on
9 or off but more or less we have considered them to be
10 on when we did our evaluation for 24 hours a day.

11 MR. SHAW: The existing noise that you
12 measured is not consistent 40 to 49? It's
13 intermittent noise or consistent noise?

14 THE WITNESS: No, the range I gave you is
15 over those half hour periods, the lowest to the
16 highest sound levels that range in that half hour.
17 So the lowest sound levels I gave you, the 40 and 42
18 dBA, those would be the continuous noise that exist
19 out there unless an airplane flies overhead and all
20 of a sudden the sound levels goes higher.

21 MR. SHAW: So the lower number is
22 actually a continuous number from what you explained?

23 THE WITNESS: Yes. If you're comparing
24 apples to apples the existing sound levels from
25 continuous out there are 40 to 42 dBA nighttime and

1 daytime respectively, and we predict sound levels no
2 greater than 42 dBA, again not including the ambient.

3 So we're talking about sound levels that
4 will be very consistent to what exists presently out
5 there.

6 MS. ROMANO: Now the fans are running to
7 cool the antennas?

8 THE WITNESS: Yes, ma'am.

9 MS. ROMANO: I know we had a crazy
10 winter. Let's say we get a crazy summer where it
11 gets really hot. Would that still be the loudest
12 that you would hear or were they actually have to
13 work harder or faster to cool the antennas?

14 THE WITNESS: That's a good question.
15 The manufacturer when they give us the data, they
16 provide us the data at maximum cooling, maximum fan
17 speed. Also when we verify that data by going and
18 doing our own independent measurements of other
19 pieces of equipment, we like to go out and make
20 measurements when the ambient temperature outside is
21 about 70 degrees Farenheit. So we try to get when
22 it's going to be hottest when we go do our
23 measurements to backup what the manufacturers tell
24 us.

25 So it's not like when we hit 100 degrees

1 in August a third or fourth fan is going to kick on,
2 no. The manufacturer provides us with all of the
3 equipment operating simultaneously.

4 MS. ROMANO: You would never need
5 additional fans or anything else? This is meant to,
6 let's just say it reaches 110 degrees, the current
7 fans are going to actually maintain that heat to keep
8 that cool?

9 THE WITNESS: It's not my expertise, I'm
10 mechanical, but I can give you -- I would assume not
11 because otherwise it would be a maintenance nightmare
12 to have to keep servicing every time it exceeds
13 ambient temperature.

14 MR. SHAW: And in terms of emergency
15 generator, your analysis does not include any
16 analysis of what those noise impacts would be?

17 THE WITNESS: No, sir. And that's
18 because there's no permanent generator proposed for
19 this site. And if a generator was required it would
20 be required only in the event of an emergency; in
21 other words, there's a sustained power outage. And
22 in that case any emergency generator, residential or
23 commercial, would be exempt from the noise regulation
24 in the eventuality of a Superstorm Sandy or anything
25 of that nature where you have a prolonged power

1 outage.

2 And it's very difficult to predict
3 temporary generator noise, as I'm sure everyone in
4 the township knows from what happened in Superstorm
5 Sandy, they vary tremendously. A permanent generator
6 is very easy to predict but there isn't one proposed
7 for this site so, no, we didn't predict that.

8 MR. WESTON: Can you redescribe the sound
9 barrier that you described; I heard 3 to 4 inches
10 thick?

11 THE WITNESS: Yes.

12 MR. WESTON: With the material 9 feet
13 high?

14 THE WITNESS: Yes, 9 and a half.

15 MR. WESTON: Is it going to be enclosed
16 at the top or just four walls?

17 THE WITNESS: No, it's open.

18 MRS. FAIRWEATHER: Mr. Chair, I'm going
19 to interject here.

20 CHAIRMAN VIVONA: Sure.

21 BY MRS. FAIRWEATHER:

22 Q. Matt, we had a site in Hanover, in a
23 residential neighborhood at the base of a water tank?

24 A. Yes.

25 Q. And we prosed the same thing there,

1 correct?

2 A. Yes.

3 Q. And, Matt, you actually went out and took
4 a picture of that, didn't you?

5 A. I did. With the board's permission can I
6 enter this as an exhibit and hand it out?

7 Q. Yes, it would be exhibit --

8 MR. SHAW: Mark it A-38 with today's
9 date.

10 (Exhibit A-38, Photograph, was marked.)

11 UNIDENTIFIED SPEAKER: Is there a large
12 one?

13 THE WITNESS: We do not have a large one,
14 I apologize. We may have a couple extra. I believe
15 we have a couple extras.

16 So Exhibit A-38 with today's date is a
17 photograph I shot, I apologize I do not know the date
18 but I'm going to have to guess it was sometimes in
19 2012. This is a wireless communication facility on a
20 water tower in Hanover Township. I believe it's on
21 Troy Road or off of Troy Road.

22 What you're seeing in this photograph
23 that I shot is the base of the water tower, and again
24 this is a not -- not the same type of water tower at
25 this site, this is a lollipop for lack of a better

1 expression. But at the lower left-hand corner of the
2 photograph you will see an enclosure. It has no
3 roof. It is a wooden post-and-panel design.

4 This is a product manufactured by a
5 company called PLYWALL, P-L-Y-W-A-L-L. This product
6 is called the Hoover -- excuse me, I have that
7 flipped. It is the Hoover Treated Wood Product is
8 the manufacturer and it is called PLYWALL. It is a
9 post-and-panel design. In other words the posts are
10 anchored into the ground. The panels come
11 prefabricated and slide into the posts on the sides
12 and they sit on top of each other in a shiplock
13 design so gravity forces it to be a solid barrier.

14 We have recommended this barrier in my
15 office probably for the last 15 years very
16 successfully from everything from 7 and 8-foot high
17 barriers, all the way to 20 and 25-foot high
18 barriers. It has a significant amount of success
19 because they're not field erected. They don't build
20 them out there. So everything comes manufactured and
21 all you have to do is basically LEGO it together.

22 It is a solid barrier. They take 2 x 4's
23 and put them on edge so they're about three and a
24 half inches thick the panels and the posts, depending
25 on how deep they have to go to satisfy wind load

1 calculations could be anywhere from 9 to 12 inches
2 thick. And that's the type of barrier we're
3 proposing with the board's approval.

4 I happen to like this barrier from an
5 acoustical standpoint because it is solid. It does
6 provide very good amount of attenuation. It also
7 looks better because it's wooden, it's not a metal
8 barrier, it's not a concrete barrier, as we all know
9 in New Jersey lining just about every highway in our
10 state, but it is from an acoustical standpoint a very
11 good solid noise barrier.

12 MS. KENNY: It's real wood?

13 THE WITNESS: It is real wood. I
14 apologize for standing but I feel bad.

15 MR. SHAW: There's an existing stockade
16 fence which surrounds three-quarters of the site.
17 Could you address what type of sound attenuation is
18 impacted or additionally provided to the site by
19 virtue of that?

20 THE WITNESS: The existing stockade
21 fence?

22 MR. SHAW: Yes.

23 THE WITNESS: Virtually none. This is
24 really the main source of noise attenuation that we
25 propose for this site.

1 And again, the purpose of this is to
2 reduce the sound levels to not only the limits of the
3 nighttime noise regulation but down into what the
4 existing sound levels are.

5 We could have put a maybe not as massive
6 or slightly lower fence and had sound levels that
7 would have complied with the code but would have been
8 audible or more audible, more perceptible in the
9 vicinity of the site. We recommend in our office a
10 slightly higher sound barrier that we have levels
11 above or below the existing sound levels at the site.

12 MR. WESTON: This is, from what I can
13 see, this seems to be a bit more of a park-like
14 setting than we're talking about here and I know
15 you're the acoustic engineer but this structure will
16 be five and a half, five feet away from the fence
17 line.

18 THE WITNESS: Yes. Five to 6 feet
19 depending on which side, yes.

20 MR. WESTON: And our zoning limits in
21 Chatham for fences are six feet I believe and this is
22 going to be nine and a half feet high. I can't do
23 the math in my head but this is going to be popping
24 out.

25 I understand the water tower sticks out

1 over the fence as well, but this is an additional
2 entity that will be sticking up over the fence in
3 Chatham.

4 THE WITNESS: Yes, and I believe the
5 existing fence for comparative purposes is 6 feet or
6 7 feet tall.

7 MR. SHAW: I believe it was supposed to
8 be increased to 8 feet, isn't it?

9 MS. FAIRWEATHER: Yes. Actually the
10 civil engineer was going to discuss that next.
11 Because the sound barrier has to be nine and a half
12 feet, AT&T is proposing -- so that it's all equal and
13 level and you don't have different heights in
14 there -- to replace the fence around with the
15 board-on-board wood fence to kind of match it and
16 make it the same height so you didn't have different
17 heights, if the board thought that would be better.

18 MR. SHAW: So you're seeking additional
19 variance relief for the height of the -- you're
20 currently seeking variance relief for 8 feet and you
21 would be seeking variance relief for the other nine
22 feet?

23 MS. FAIRWEATHER: Yes, 9 feet, another
24 foot and a half, yes, sir. We're changing the --
25 we're seeking the relief today, increasing the

1 height, and to discuss esthetically what would be
2 better on the existing fence, whether it should be
3 replaced with wood to make it match, have it the same
4 height, not have it the same height, leave as it is.
5 But that's for the civil engineer. He's an important
6 person tonight.

7 CHAIRMAN VIVONA: Why does it have to be
8 nine and a half feet tall?

9 THE WITNESS: We ran through several
10 iterations of barrier height to get the maximum
11 amount of attenuation. If you can envision a barrier
12 we can just keep increasing it indefinitely and you
13 would think that eventually you're going to keep
14 getting -- the sound levels get quieter and quieter
15 but the reality is it maxes out at some point in
16 terms of the amount of sound it will block. There's
17 always sound going over the top of the wall. At nine
18 and a half feet we've basically maxed out the amount
19 of attenuation we're going to get from a solid
20 barrier. We can go to 10 or 12 and the reality is
21 you're not going to get anymore attenuation than you
22 would at nine and a half.

23 If we were to go down to eight or lower,
24 or nine or eight and a half and so forth, we would
25 reduce the performance of that barrier and result in

1 slightly higher sound levels than what we predicted.
2 Still meeting the limits of the Ordinance but
3 slightly higher than what exists out there presently.

4 CHAIRMAN VIVONA: So if it was six-foot
5 tall -- right now it's a pretty big enclosure.

6 THE WITNESS: Yes.

7 CHAIRMAN VIVONA: If it were six feet
8 tall is it going to increase it by 10 decibels or a
9 tenth of a decibel?

10 THE WITNESS: Probably more like the
11 former than the latter. And I don't have those
12 numbers in front of me but I'm just going from the
13 numerous models we ran. Some of the equipment
14 actually on top of its mounting is about six feet
15 tall. So in order to have any real attenuation from
16 a source to a receiver you have to block the line of
17 sight. The example I like to use is if you imagine a
18 room is dark and you put a light bulb in one end of
19 the room and turn it on, if you put something between
20 you and the light bulb you're still seeing light but
21 once you interrupt that line of sight between your
22 eyes and the light bulb you're now in a shadow zone.
23 And that's exactly what we need to create that shadow
24 zone, which is why the barrier needs to start at
25 seven feet because the tallest equipment is about

1 six, little higher than six feet. That's why we came
2 up with nine and a half feet.

3 CHAIRMAN VIVONA: Are the fans in the top
4 of the equipment or bottom?

5 THE WITNESS: I'm going to have to defer
6 that, I'm not sure. I think they are all different,
7 some on top, some are in the middle.

8 But when we do our barrier calculations
9 for any application we always take the highest point
10 of the source not the lowest to do our designs. So
11 if they are lower then you end up with a better bang
12 for your buck per se.

13 CHAIRMAN VIVONA: Can you give me an
14 example of what 42 decibels is; a car 100 feet away?
15 A bird?

16 THE WITNESS: Okay, that's a difficult
17 one because you end up with a quality of sound, as
18 well. So if you say that 42 dBA sounds like
19 something at 50 feet, the first reaction is to say
20 it's going to sound like that. The best example I
21 can give you to about 40 or 45 dBA would be the
22 condensing unit for a home air conditioning unit at
23 100 feet, that's 40 to 45 dBA. The newer models
24 better, older models not so much. That's about the
25 range we're talking about.

1 CHAIRMAN VIVONA: You also stated that
2 the normal ambient sound, which is sound that is
3 there all day long, is 40?

4 THE WITNESS: 40 to 42.

5 CHAIRMAN VIVONA: And these machines
6 without the barrier are 42?

7 THE WITNESS: Without the barrier? No,
8 that's not what I testified to, I apologize. With
9 the barrier they would be 42. Without the barrier
10 they would be higher than of that.

11 MR. SHAW: Over 50?

12 THE WITNESS: Yes, they would be over 50.

13 MR. WESTON: If this is an open structure
14 here is there any sort of ducting effect where you
15 achieve your goal at ground level in a vicinity? I
16 know you have that effect on a highway with sound
17 barriers.

18 THE WITNESS: That's a good question.
19 When we do our calculations we assume your height, so
20 five and a half, six feet tall and we're not -- we're
21 doing the calculations at the property line so you're
22 not right up against -- if we were right up against
23 the wall that would not really be not a very fair
24 representation of the attenuation.

25 What happens when you start backing up

1 away from the barrier, two things. One is you get
2 further away from the noise source which results in
3 quieter sound levels but also starts to reduce the
4 performance of the barrier. Those tend to be a
5 one-to-one trade-off in pieces of equipment like
6 this. So basically the further you back away,
7 assuming you're still at normal 5 to 6-foot high
8 elevation, the trade-off of backing away from the
9 equipment and that reduction in noise will balance
10 out any decrease in the noise barrier. So basically
11 you're not going to have any higher sound levels if
12 you find that one spot in the middle of the yard
13 where it sounds like like that's the loudest spot,
14 like you're trying to find the good seat in an
15 auditorium. That's not going to exist here.

16 MS. ROMANO: What happens if you're in
17 the house and you're upstairs on the second floor.

18 THE WITNESS: The houses are
19 significantly further away from the property line. I
20 don't have exact distances here but the calculations
21 we did were at 12 and 13 feet from the equipment.
22 The equipment, the houses are probably over 100 feet,
23 I'm just assuming.

24 MS. ROMANO: Even though not at ground
25 level or higher up would that be --

1 THE WITNESS: No, they might be able to
2 see over the barrier. I don't expect the sound
3 levels to be any higher at the houses.

4 Now, there's currently a playground from
5 one of the properties up against the fence of the --
6 I have to get my bearings, west -- west property,
7 that is higher than the existing fence. You might be
8 able to, I didn't go on the property and measure the
9 height, but you might be able to from that look over
10 the barrier. In that case you might have sound
11 levels that were higher than what I'm predicting.

12 MS. ROMANO: Is there any way for this to
13 be enclosed or does it have to stay open?

14 THE WITNESS: I don't believe we can
15 enclose it because you need air flow through these
16 pieces of equipment and this is a solid barrier. In
17 addition if we enclose it it now it becomes a
18 structure, it's a barrier enclosure and the equipment
19 would not do very well, overheat quickly if it
20 couldn't get air through it. And then you have to
21 get forced air through the system because you would
22 have to put an air conditioner or something on it so
23 we don't want to do that.

24 MR. STYPLE: Just one question, what kind
25 of power does it draw?

1 THE WITNESS: Does what draw?

2 MR. STYPLE: The air conditioners, the
3 fans?

4 THE WITNESS: I'm going to let the
5 engineer talk about that. That's a good question but
6 I don't have an answer for you.

7 MR. POLISE: The background level you
8 mentioned, 40 to 45 you said?

9 THE WITNESS: The lowest we measured were
10 40 to 42. The higher sound levels we measured were
11 about 49 to 50.

12 MR. POLISE: That sounds kind of high to
13 me based on a rural setting.

14 THE WITNESS: That's about typical for
15 rural New Jersey, suburban New Jersey.

16 MR. POLISE: If I'm in my bedroom and I
17 open my window and I hear a cricket, what's that?

18 THE WITNESS: I have no idea.

19 MR. POLISE: I'm serious.

20 THE WITNESS: I really don't know. I can
21 tell you if you went out to the site now and stood
22 there for half an hour you would hear about 40 to 48
23 dBA. That's what you hear.

24 MR. POLISE: And you don't think that's
25 high?

1 THE WITNESS: No.

2 MS. KENNY: I have the same question
3 because the code is 50, I was surprised to hear those
4 numbers, too. What is 0? I'm surprised it's that
5 high.

6 THE WITNESS: 40 is high? Or 50 is high?

7 MS. KENNY: Well if the code is 50 and
8 we're at 42 during the day and 48.

9 THE WITNESS: That's a good point. Keep
10 in mind that the 50 dBA code is enforced for all the
11 municipalities in the State of New Jersey. So it's
12 the same standard as it is in the Bridgewater Commons
13 Mall area for the houses, the condos right behind the
14 mall as it is for Chatham.

15 MR. POLISE: It's the same for Newark?

16 THE WITNESS: They have their own code
17 but yes 50 dBA in Newark if this was equipment going
18 in the City of Newark or any of the urban areas of
19 New Jersey it would still be the same code.

20 The reason we recommended this additional
21 barrier is because I felt that 50 dBA was too loud
22 because we could meet the code with a smaller wall.
23 But then you would have an increase in sound level of
24 8 to 10 decibels over what is present, and I have
25 done a number of these applications and I didn't

1 think that that would be acceptable because you're in
2 a residential neighborhood, we want to maximize, we
3 want to get it as quiet as we possibly can.

4 And to be honest with you, I have done
5 measurements all over the State of New Jersey, 40 dBA
6 is quiet for a suburban area. I have measured some
7 numbers quieter but it's been way north, Northwest
8 New Jersey in middle of farm country.

9 MS. KENNY: It's more like a strict
10 Ordinance, you can look at it.

11 THE WITNESS: It's a strict Ordinance.
12 It was promulgated by D.E.P., it's enforced by the
13 County Health Office or the municipality if they
14 choose to have noise control officers accepted by the
15 D.E.P.

16 MR. POLISE: So you're saying with this
17 barrier if you're laying in bed at night with windows
18 open you won't hear it?

19 THE WITNESS: You won't. Not -- in the
20 backyard you might but in the houses, no, you will
21 not.

22 MR. POLISE: My next question is if the
23 fans are going on and off would you notice that?

24 THE WITNESS: If you're in the vicinity
25 of the property at night, right up against the

1 property, maybe. In the house, no.

2 MR. POLISE: So even the cycling of fans
3 you won't hear?

4 THE WITNESS: In the houses?

5 MR. POLISE: Yes.

6 THE WITNESS: I want to be quantify this.

7 MR. POLISE: Even in the backyard. Let's
8 say you're sitting in your backyard, the fans are
9 clicking on and off?

10 THE WITNESS: In terms of like startle,
11 like oh my gosh, what is that, no, I don't think
12 you're going to have that anywhere.

13 MR. POLISE: What would be apparent? Do
14 you know something is going on or not?

15 THE WITNESS: If you were right up
16 against the fence it will be, in my opinion, barely
17 audible. If there's nothing else, you're at the
18 lowest sound level, there's no airplanes or no cars
19 going by you might be able -- might be able to hear
20 that equipment running. I don't think it's going to
21 switch on and off like you're describing, maybe in
22 the colder months, but generally it's going to be on.

23 Definitely in the houses and further away
24 from the site, no, I don't believe you're going to
25 hear anything over what you hear now.

1 MR. POLISE: Your sound levels are based
2 on all the fans running together?

3 THE WITNESS: Yes, sir.

4 MR. POLISE: I'm looking at Drawing Z-01,
5 these drawings we have in the packet, do these
6 incorporate the sound barrier?

7 MS. FAIRWEATHER: No, that's on a sheet
8 that the civil engineer is going to talk about
9 because he's going to talk about where it is in the
10 civil engineering part of it.

11 MR. POLISE: Not to throw fuel on the
12 fire but this note on the drawing, Note 11 says,
13 "Proposed facility is unmanned and will not generate
14 any noise, dust, fumes, odors or vibrations."

15 So without the sound barrier it would
16 generate noise, wouldn't it? I'm just curious why
17 the note is on that drawing.

18 THE WITNESS: I don't know. I don't know
19 why that note is on there, to be honest with you.

20 MS. FAIRWEATHER: The drawings were
21 revised and handed in before the sound was finished,
22 they were to incorporate the changes from the last
23 hearing last month in order to do it. That was the
24 main purpose of submitting them prior to the ten days
25 before. And then so we have the sheet to go over

1 that with the civil engineer and he can answer all
2 these questions.

3 MR. POLISE: This one deals with noise
4 and it says there will be no noise and it's wrong.

5 MS. FAIRWEATHER: The site has to be
6 built pursuant to D.E.P. standards so when the site
7 was going to be constructed or whatever it would have
8 had to have been attenuated if it was going to be
9 heard over the thing. The civil engineer will answer
10 that. I'm just babbling. We'll wait for
11 the civil engineer.

12 MR. POLISE: You're going to point it
13 back to this guy.

14 MRS. FAIRWEATHER: He can explain why the
15 note is on the plans, the civil engineer.

16 MR. POLISE: The note is inaccurate.

17 THE WITNESS: From noise standard point
18 the note is inaccurate.

19 MS. KENNY: I have a question. So if I'm
20 a homeowner surrounding the equipment and I'm sitting
21 in my backyard 10:30 at night and it's quiet, your
22 testimony is I might be able to hear the fans go on
23 and off?

24 THE WITNESS: Maybe.

25 MS. KENNY: Maybe, okay. If you did the

1 measurements and you ended up getting instead of
2 40/42 you got 37/38, would you be able to bring
3 down -- would you be able to come down to that level
4 based on what you're proposing here?

5 What would you do you if you goal was to
6 have it be the lowest it could possibly be?

7 THE WITNESS: We have about maxed out our
8 attenuation with this barrier with the site being
9 laid out the way it is.

10 MS. KENNY: So if they weren't you
11 wouldn't be able to come in lower that to 40 or 42?

12 THE WITNESS: I think providing 10 dB
13 below the limits of the code and in the vicinity of
14 the existing sound levels I would be more than happy
15 to talk about hypotheticals and what would happen if
16 it was quieter or louder or what it is, but the
17 reality is what we measured out there was consistent.
18 It was wintertime, there was snow on the ground, it
19 was 11:30 at night and 1 o'clock in the afternoon or
20 10 o'clock in the morning whatever it was, I
21 apologize and lowest sound levels was 40/42. We
22 expect levels to be comparable to that now.

23 If somehow it got ten decibels quieter --
24 I don't know how that could possibly happen, but
25 let's say it does -- the equipment can't get much

1 quieter under this layout.

2 MR. SHAW: Is the equipment under the
3 existing layout would be -- would there be other
4 layouts with less noise?

5 THE WITNESS: I apologize, we really
6 haven't evaluated anything else. Certainly if you
7 were to move it further away from the property line
8 maybe, but again it's pretty quiet out there and this
9 is about the best I think we're going to be able to
10 do with this equipment in this particular layout.

11 If we were to move it further away from
12 the property line, closer towards the tower, I don't
13 know if we can do that logistically.

14 MR. SHAW: Okay.

15 THE WITNESS: Thank you. Anybody else on
16 the board have questions?

17 MR. POLISE: I had one question, what was
18 the daytime noise level?

19 THE WITNESS: At 10:05 a.m. we measured
20 sound levels from 42 to 49 dBA, 42 being the quietest
21 level, and at night it was 40 to about 49 as well.

22 MR. POLISE: How do you explain that?

23 THE WITNESS: My guess is you have
24 intermittent noise sources, like airplanes, and it
25 only takes over a 30-minute period it only takes one

1 to fly over your head at 50, 55 dBA to take your half
2 hour sound level and make that dominant noise. So if
3 you have one or two airplanes that fly over a half
4 hour, which is typical for Chatham, that is what that
5 highest sound level would be.

6 MR. POLISE: Same with the low, right?

7 THE WITNESS: Low is basically no ambient
8 noise sources, if there were insects in the
9 summertime that number would be significantly higher
10 with sakatas and bugs.

11 MR. POLISE: Is 40 an average?

12 THE WITNESS: The 40 is statistically
13 low, not the average. The average sound levels were
14 actually 46 to 47 dBA. That would be the mean level
15 over those 30 minutes where half the numbers were
16 higher than lower. So 46 to 48 is the average. The
17 40 to 42 dBA, that's the statistically lowest sound
18 levels. So again take 30 minutes of measurements,
19 take every sound level you measured one per second
20 for those 30 minutes and group them from highest to
21 lowest, the lowest -- when you start counting up
22 until ten % that lowest 90th, everything above that,
23 that's the 40 to 42. That would is the residual
24 quietest sound level that exists out there.

25 MR. POLISE: I think that sounds high.

1 THE WITNESS: You think 40 is high?

2 MR. POLISE: Yes.

3 THE WITNESS: Okay. I have to be honest
4 with you, for 20 years, that's low.

5 MR. POLISE: If you're lying in bed and
6 the windows are open, you hear nothing, the still of
7 the night, that's 40?

8 THE WITNESS: Yes. Keep in mind there is
9 really nothing, there's always something making
10 sound.

11 But I understand your point but what I
12 can tell you is I went out there, I stood there for
13 30 minutes, I made these measurements, these are what
14 the numbers are.

15 To be honest with you 40 dBA I thought
16 numerically was lower than I thought it was going to
17 be until I went out and stood there when I realized
18 that's pretty quiet.

19 MS. ROMANO: I have one more question so
20 we're saying without the fans and everything just
21 currently right now it's 42 dBA the lowest point?

22 THE WITNESS: 40 to 42, daytime,
23 nighttime, yes.

24 MS. ROMANO: Now we're adding the
25 consistent noise, another 42. This might sound dumb

1 but now with that noise on top of the existing daily
2 noise would that now bring the level to let's say 50?
3 Would it add to the existing noise or just stay 42?

4 THE WITNESS: For the benefit of not
5 putting everybody to sleep at this late hour and not
6 getting into the math of it, if we have 42 and 42
7 dBA, actually the total would be an increase of three
8 so about 45 dBA.

9 MS. ROMANO: So it wouldn't increase it
10 double?

11 THE WITNESS: No, it wouldn't be 84
12 that's for sure. It would add but that's why I said
13 I believe at the closest locations it will be barely
14 perceptible over the background because an increase
15 of 3 dBA generally is perceived as a smallest
16 increase an ear can perceive and that's with
17 headphones. Outside in the middle of the environment
18 that's going to be really difficulty to hear, but I
19 don't want to be taken out of context and say you
20 will never hear this.

21 I did testify that at the house I don't
22 believe you will be able to hear this but if there is
23 an increase right up against the fence, the fence of
24 the water tower site, it will be barely perceptible.

25 CHAIRMAN VIVONA: Thank you.

1 MR. POLISE: What percentage was fan
2 noise and what was the hum?

3 THE WITNESS: To be honest with you I
4 don't know. The manufacturer doesn't separate those
5 out for me. It's basically on versus off in terms of
6 noise for this equipment.

7 CHAIRMAN VIVONA: Any questions from the
8 Board? We'll open it up to the public, these are
9 questions only for his testimony.

10 BY THE PUBLIC:

11 MS. WEISGERBER: Katie Weisgerber. My
12 children's swing set is the swing set that overlooks
13 the structure that we're just discussing. Did we get
14 a measurement of what the sound level would be
15 without the structure?

16 THE WITNESS: Without the barrier?

17 MS. WEISGERBER: Without it.

18 THE WITNESS: It would be over 50 dBA.

19 MS. WEISGERBER: So the barrier will not
20 have a top that will be nine and a half?

21 THE WITNESS: Correct, no lid.

22 MS. WEISGERBER: We children swing set
23 has a platform six feet off the ground.

24 THE WITNESS: Okay.

25 MS. WEISGERBER: Now my children are

1 12 months old and 36 months old and they require help
2 from their parents and my husband is 6 foot three, my
3 father 6'5". Now we're 12 feet looking over the
4 fence that is intended to now be raised even further
5 changing my property.

6 Now how loud is that going to be for me
7 look go into something that has a much higher dBm
8 allowable bylaw how much louder is it for me by that
9 vantage point?

10 THE WITNESS: I don't have that answer
11 for you. I would be happy to provide that but I
12 didn't do the calculation -- to have the platform
13 looking down there to the barrier I don't know. But
14 I can provide that if the board would like it.

15 MS. WEISGERBER: That would be great if
16 they would like it. Would you be stating in your
17 professional opinion that the sound would be louder
18 than if it was standing on the ground.

19 THE WITNESS: Yes.

20 MS. WEISGERBER: Thank you.

21 MR. DREYFUS: David Dreyfus. Can you
22 tell us what the full dimensions are of the sound
23 barrier? Looking at this you said it was nine and a
24 half feet wide. It looks wider than that and much
25 longer, so I'm just trying to figure out the full

1 dimensions of the structure.

2 THE WITNESS: You're referring to the
3 photograph Exhibit A-38.

4 MR. DREYFUS: Yes, I am.

5 THE WITNESS: Just for the record. To be
6 honest with you I'm not sure about the length of the
7 enclosure I know this particular one I believe is
8 nine feet tall we tape measured it the other day but
9 additional concrete pad for about 4 or 5 inches in
10 the bottom. So from the grass to the top of the
11 barrier it's under nine and a half feet tall.

12 In terms of the dimensions of it I don't
13 know but I may have to assume that it's about
14 comparable to the equipment layout that we're
15 proposing. It's the same type of equipment that
16 we're proposing so the dimensions length and width
17 would be comparable to what we're talking about.

18 MR. DREYFUS: Do you know what that is
19 approximately.

20 THE WITNESS: I have to be honest with
21 you the civil engineer can tell you anything about --
22 dimensions, I can only tell you on that photograph
23 how tall it is.

24 MR. DREYFUS: Does that effect the sound
25 at all the dimensions, how far it would be from the

1 generator, how close?

2 THE WITNESS: The noise generator or a
3 generator? Because there's no generator on the side.

4 MR. DREYFUS: I had the wrong word. The
5 equipment that will be installed there if this was
6 approved, does that effect the noise in terms of how
7 far it is away from it?

8 THE WITNESS: Yes, it does. But
9 primarily the dominating dimension for noise barrier
10 is height so if you have a noise barrier that is very
11 far away from a noise source or close to a noise
12 source you will be get differing amounts of
13 attenuation. The closer it is to noise source the
14 better it is to attenuating that sound. That's why
15 we like to put them close to the noise source?

16 MR. DREYFUS: Have you done any studies
17 in terms of the impact of this type of noise and how
18 constant it is on wildlife or house pets.

19 THE WITNESS: Well, no, but I can tell
20 you that in this photograph only because he scared me
21 to death on the bottom of the water tank you can see
22 a sleeping deer. He was there the entire time and
23 didn't scare me until I was getting ready to leave
24 after 30 minutes of measurements.

25 Trust me, I didn't see it either. I

1 haven't done any studies per se on the noise of
2 telecommunications but again there is telecom
3 equipment all over the State of New Jersey and
4 ever-growing presence of deer, it doesn't appear to
5 be effecting it in any way, shape, or form.

6 MR. DREYFUS: My question really there's
7 all kinds of hawks and eagles and all types of birds
8 that will be flying over it, that's what I was
9 wondering. But you haven't done any studies on that
10 so thanks very much.

11 THE WITNESS: Thank you.

12 MR. WEISGERBER: Brad Weisgerber, 11
13 Huron. I also -- my house is the one that is
14 back-to-back with the water tower, we share a
15 property line. So just so I understand this
16 correctly, what you're saying is the fence now is
17 going to be higher than the proposed plan because OF
18 the sound barrier, correct?

19 THE WITNESS: Yes.

20 MR. WEISGERBER: And you're saying you're
21 moving it further away from the property line?

22 THE WITNESS: No. The enclosure is the
23 same dimension from the property line. What we did
24 is move the equipment that makes the most noise to
25 the south and east of the enclosure within the

1 property.

2 MR. WEISGERBER: And your estimate,
3 according to this photograph here, is that it would
4 create roughly between 40 and 48 dBA's.

5 THE WITNESS: No. What I said is it would
6 be 42 dBA at the property line. The existing sound
7 levels are 40 to 42 with the highest existing sound
8 levels being 48 to 49 dBA.

9 MR. WEISGERBER: So if we were to go to
10 this site and listen it would be comparable to what
11 we should expect?

12 THE WITNESS: I would have to be honest
13 with you I don't remember because it has been a
14 while, but I did do post-installation measurements at
15 this site, it is in the middle of a residential
16 community, I really don't remember. But if you stood
17 at the property line of this site, yeah, you probably
18 would.

19 MR. WEISGERBER: It sounds like the board
20 is looking to hear an example of 40 dBA's, which is
21 the expected noise?

22 THE WITNESS: But I believe I testified I
23 did give an example of what it would be, 40/45 dBA
24 would be.

25 MR. WEISGERBER: What was that again.

1 THE WITNESS: I would be happy to. I
2 stated or I believe the Chairman had asked me what 42
3 dBA sounds like. My testimony was 40 to 45 dBA that
4 range is about what the condensing unit if you have
5 central air, so the condensing unit, the piece that
6 goes outside your house at about 75 to 100 feet away
7 is 40 to 45 dBA.

8 MR. WEISGERBER: What concerns me is
9 that's my central air and bought the house knowing
10 it's central air. My children don't play around with
11 the central air unit. Their playground is three feet
12 from the property line in what appears to be less
13 than ten feet in where this sound barrier and
14 electric equipment to power the antenna is going to
15 be located. So clearly it's going to be audible from
16 my property and from the swing set is what I'm taking
17 away from this at 40, 42 dBA?

18 THE WITNESS: That's not what I testified
19 to but if you want to make that statement you
20 certainly can.

21 MR. WEISGERBER: That's what I took away
22 from it.

23 THE WITNESS: Okay.

24 MR. WEISGERBER: So we're talking about
25 40 to 42 roughly dBA of unnatural noise.

1 What is currently on the site is nothing
2 and that is creating 0 dBA I would assume, right?

3 THE WITNESS: No. I think I testified
4 already the existing sound levels, what you referred
5 to as 0 or no noise or I call it the ambient, is 40
6 to 42 dBA. So your nothing is 40 to 42. We predict
7 that the --

8 MR. WEISGERBER: On average.

9 THE WITNESS: -- that is the lowest sound
10 level that I measured was 40 to 42. If you want to
11 talk about averages, that's fine, the average sound
12 level was 46 to 48. I don't want to look at averages
13 because to me that's not going to give you the total
14 picture.

15 I looked at the lowest continuous sound
16 level we measured, 40 to 42, what you refer to as no
17 noise, we predicted sound levels comparable to that.

18 MR. WEISGERBER: Okay. Because I want to
19 the site and I used the measurement tool and the
20 electric equipment was producing what we measured as
21 roughly 64 dBA's. That was ten feet away and this
22 didn't have a sound barrier, but I stood further away
23 which I would guesstimate was roughly two-thirds of
24 the sound so maybe in the forties and it was a lot
25 higher than I thought it was going to be.

1 So I think 40 something dBA, as the board
2 stated, is substantial. And I think it is not
3 preferable, especially to a property owner who shares
4 a property line, and I think that the plan that you
5 propose generates significant noise. And I think
6 that people who have a decision to make whether or
7 not this gets approved should hear what the noise
8 level is that this is going to be created. And
9 whether that's a site visit or whatever you propose,
10 in my experience from visiting the site it was very
11 significant. It was a lot higher than I thought it
12 was going to be. And 50 dBA which sounds like it's
13 the limit is high. I mean if something was
14 constantly going at 50 dBA it's bothersome. And you
15 mentioned airplanes going overhead, they're not
16 constantly going, this sounds like constant.

17 And whether it's daytime, nighttime, our
18 backyard is never quiet, our windows are always open,
19 we use the space a lot and nobody wants to hear
20 noise. Whether it's 40 dBA or 50 dBA whatever the
21 limits are it's going to be a change. I don't know,
22 what is going to be the answer, to go to the site?

23 THE WITNESS: What's your question?

24 MR. WEISGERBER: Where do I hear
25 something comparable to what it's going to be

1 generating?

2 MS. FAIRWEATHER: He's told you
3 repeatedly that if you just stand in your yard that's
4 the noise. The background noise at low level is 40
5 to 42, that's going to be 42. That's what he's
6 saying.

7 MR. WEISGERBER: And I'm supposed to
8 believe that? I mean -- all right, we're supposed to
9 take your word for it?

10 All right, I'll let someone else ask a
11 question, I guess.

12 MS. LOTFY: Ola Lotfy, 4 Kincaid Lane. I
13 was wondering if you considered the topography of the
14 land in terms of your testing, the houses adjacent to
15 the property but downhill? Because in my experience
16 the sound is attenuated for me. We can hear people
17 whispering in their backyards basically.

18 THE WITNESS: We calculated the sound
19 level at the property line which is the fence, which
20 is the same elevation as WITH the proposed equipment.

21 MS. LOTFY: You didn't consider the
22 properties adjacent to that land where the tower is
23 but downhill?

24 THE WITNESS: Yes, we looked at the
25 property line. Did we calculate --

1 MS. LOTFY: The property line is adjacent
2 to the equipment. I'm talking about you don't go
3 property line at the same level but you go down one
4 hill. So basically a house that's situated lower
5 than the water tower but yet they share a property
6 line with the water tower.

7 So I'm sitting in my backyard on Kincaid
8 Lane, I'm downhill from the water tower what would be
9 the decibel level there relative to where the water
10 tower is?

11 THE WITNESS: I didn't do a calculation
12 but my best estimate would be lower than what I've
13 predicted because the lower you get the more
14 attenuation you're going to get from topography,
15 barrier and location of equipment.

16 MS. LOTFY: I don't know anything about
17 the propagation of sound waves the sound is
18 accentuated when you're downhill. We can hear people
19 whispering in their backyards.

20 THE WITNESS: Okay.

21 MS. MESSING: Haylee Messing, 60 Buxton.
22 When were you outside for the half hour and measuring
23 42 to 49 what was making all that noise?

24 THE WITNESS: Just wildlife, intermittent
25 aircraft, 1 or 2 cars passing by along the local

1 road, distant traffic from the roads down the hill.
2 That's about it.

3 MS. MESSING: So probably what would make
4 the 49, would that be an airplane?

5 THE WITNESS: Yes, Very likely, an
6 airplane or car, a loud car.

7 MS. MESSING: And that just went by at
8 some point during the half hour?

9 THE WITNESS: Which is why I didn't want
10 to talk about those numbers because they're
11 intermittent. If they happen once or twice during a
12 half hour we don't want to say that's what your
13 existing sound levels are on your property, that's
14 not fair. It's not really realistic to what you're
15 experiencing in your yard which is why I testified
16 what I'm talking about are the lowest sound levels
17 that you would experience when there are no cars and
18 planes flying by what are the lowest sitting in the
19 yard meditating that kind of sound level, can I
20 quantify it. And that's the 40 to 42 that I
21 testified to.

22 MS. MESSING: So the 40 is no cars, no
23 airplanes, no nothing.

24 THE WITNESS: Yes.

25 MS. MESSING: Just Chatham?

1 THE WITNESS: Yes, just Chatham.

2 MS. MESSING: But 49 is an airplane?

3 THE WITNESS: To be honest with you, I
4 didn't identify specific sources, that was an air
5 plane or that was a car.

6 MS. MESSING: I'm trying to figure out
7 incrementally, because I don't know sound and I don't
8 understand it so I was just wondering incrementally
9 what is the difference when you're going up.

10 Because you're saying the sound is
11 cumulative in a sense, she asked before and you said
12 it might go up three decibels adding the ambient to
13 the sound of the antennas.

14 THE WITNESS: Correct.

15 MS. MESSING: So what I'm trying to
16 figure out is in that range that you measured during
17 the day, that was say 42 to 49, where that three, the
18 cumulative three points is going to impact us?

19 THE WITNESS: Let me try to do this for
20 the record with my hands here. I'm Italian, this
21 should be easy for me.

22 MR. SHAW: Hard to show your hands on the
23 record.

24 THE WITNESS: I'm going to try real hard
25 to do this for the record.

1 So if my right hand -- so we have an
2 existing sound level, my right hand, let's call it
3 right about at eye level. This is my 40 to 42 that
4 we measured.

5 Now we introduce a new noise source which
6 is comparable, again at eye level. This level of the
7 equipment noise will never change, it's going to stay
8 the same.

9 MR. POLISE: Excuse me, you don't know
10 that.

11 THE WITNESS: Yes, I do because its
12 continuous noise.

13 MR. POLISE: The fans go on and off.

14 THE WITNESS: So if it goes off then it
15 will never go higher than that.

16 MR. POLISE: That's my point, the
17 difference in noise levels is perceptual.

18 THE WITNESS: No, no, no. Let me finish.

19 MS. FAIRWEATHER: You're not supposed to
20 tell a board member "no, no, no". I'm sorry.

21 THE WITNESS: My apologies.

22 MR. POLISE: You said something that is
23 wrong.

24 THE WITNESS: No, I did not.

25 MR. POLISE: It's not on all the time.

1 THE WITNESS: The cooling fan equipment
2 is more or less on all the time, the cooling for
3 the -- the cooling and equipment and the hum of the
4 electrical equipment is on all the time. The cooling
5 fans may not be on at a high but they have to provide
6 a constant cooling to this equipment or it will
7 overheat.

8 MR. POLISE: If it's 100 degrees outside
9 the fans aren't going to be on?

10 THE WITNESS: Then the sound level for
11 the equipment will be lower than what I testified to.

12 MR. POLISE: As the temperature changes
13 they will come on and off.

14 THE WITNESS: But they will never get
15 higher than the 42 that I testified to.

16 MR. POLISE: I understand they won't be
17 higher than 42. I'm saying the difference in sound
18 levels is what is perceptible to people not just --
19 you're saying 42 is 42 but when it goes from 46 to 32
20 you can hear that.

21 THE WITNESS: The lowest sound level I
22 measured out there was 40. That was at 11:30 at
23 night, the statistical lowest sound level. That's
24 40. So no matter what you do at the site if
25 you were to produce 30 dBA you would still never be

1 able to measure below 40 because 40 is our let's call
2 it the floor because that's Chatham at night at this
3 site. That's 40.

4 So if that's my eye level here, that's 40
5 dBA, that's the existing lowest sound level at
6 11:30 at night in the middle of winter, okay, and we
7 produce a sound level that let's say gets no higher
8 than 42 dBA, my left eye, the existing sound level
9 when an airplane goes by, or a car or whatever, goes
10 up to 49, this stays at 42. It goes down to 40 and
11 it goes up and down, but this stays where it is.

12 So the worst-case scenario would be if we
13 were to have a sound level of let's say the quietest
14 2 o'clock in the morning or whatever, let's say 40 or
15 even if it's a little quieter, 39, I would be
16 surprised if it's that much below 40 but let's say 40
17 dBA, and we have equipment that produces at its
18 highest level 42 dBA, the total sound level would be
19 no greater than 43 or 44 dBA. That's if you were to
20 just stand at the property with a Sound Level Meter
21 and our equipment is on and there are no airplanes or
22 cars going by and no neighboring air conditioning
23 units running, nothing, that's what we would
24 experience, that's what we would expect.

25 The increase of less than three is what I

1 was trying to demonstrate maybe poorly and I do
2 apologize, but that's what I was trying to
3 demonstrate.

4 MS. MESSING: But I guess where I was
5 getting confused is it sounds like three is a big
6 deal if 49 is the sound for an airplane and it just
7 seems if the noise is cumulative it's just adding,
8 you know, when people do have their compressors
9 running or there are trucks or whatever, it's just
10 noise pollution, it's just constantly adding to
11 what's already a problem. It's making an existing
12 problem worst.

13 THE WITNESS: I understand your point.
14 But if the ambient gets higher because of something
15 else, existing air conditioning units, a car, truck,
16 a Harley goes by, what have you, it's not going to be
17 42 plus 49, it's just going to be 55. Our level
18 stays fixed at --

19 MS. MESSING: But still contributing.

20 THE WITNESS: Certainly, it will
21 contribute.

22 MS. MESSING: Your noise level is
23 contributing to the noise pollution of the community.

24 THE WITNESS: If you want to testify --
25 sure.

1 MS. MESSING: It is, yes. Thank you.

2 MR. STAGAARD: Donald Stagaard,
3 S-t-a-g-a-a-r-d. It keeps gnawing at me that we're
4 trying to quantify something that to the human ear is
5 more about quality. You have suggested a number of
6 times that the 40/42 dBA is like when there's no
7 other sounds out there at night and it's quiet and
8 that the sound generated by this equipment is in a
9 similar 43, whatever it is and yet we're really
10 talking about two different kinds of sounds. To me
11 it's the difference with between the wind wrestling
12 the trees in the afternoon and the low hum you hear
13 from an air conditioner two doors down. That's two
14 different kinds of sounds and I don't think we can
15 quantify it.

16 You keep using the air conditioning unit
17 as an example of the kind of sound this equipment is
18 going to generate from your neighbor's yard, and even
19 that an air conditioner is on 4 or 5 hours a day
20 maybe for 2, 3 months. We're talking about something
21 12 months 24/7 all the time and maybe going off
22 intermittently and not a natural sound. Ambient
23 sound is natural sound. We're trying to compare that
24 in a quantified way with manmade with mechanical
25 noises, it's an entirely different thing. Even

1 recording them the same in my job we record ambient
2 noises and we have them mix it in and I learned from
3 mechanical noises and ambient noises are two
4 different things. Even though you hear them at a
5 similar value they just can't be compared in the way
6 that you're doing it I don't think.

7 I think the ear hears these things
8 differently as you imagine animals. That's my point.
9 You agree with me maybe? That's the question.

10 THE WITNESS: I'm not sure where to
11 start. I'll agree with you --

12 MR. STAGAARD: The mechanical noises
13 you're talking about at 42 dBA have to be far more
14 detrimental to the experience you have when you're
15 outside in your backyard than that of the ambient
16 noises you hear recorded at similar dBA that are
17 natural.

18 Do you agree with that?

19 THE WITNESS: I don't believe this will
20 be detrimental to the ear. We did our evaluation not
21 only in dBA but also looked at all the frequencies
22 that are audible from 20 hertz to 20,000 hertz. Our
23 conclusions were consistent throughout all the octave
24 bands we did. We can talk about that but we did our
25 bands from 20 hertz to 20,000 hertz that's the

1 audible range of hearing for the human and what we
2 have predicted sound levels not only from the dBA
3 which is overall sound level of how the ear perceives
4 sound that's what the dBA is for, numerically
5 speaking is going to be comparable. Will it be
6 slightly different character with no other air
7 conditioners in the vicinity, yes, which is why I
8 thought it would be fairly audible in proximity to
9 the equipment but I do not believe --

10 MR. STAGAARD: You answered the best you
11 can.

12 THE WITNESS: But I do not believe it's
13 going to be detrimental to the community.

14 MR. STAGAARD: That's the term I came up
15 with, preferred.

16 THE WITNESS: You asked if I agreed and I
17 don't, not with the word "detrimental".

18 MR. STAGAARD: All right.

19 CHAIRMAN VIVONA: Also these measurements
20 were taken 12 feet from the sound barrier?

21 THE WITNESS: The predicted sound levels?
22 Correct at the property line. Further away the
23 values, the audibility of this equipment will be
24 lower.

25 MR. GREEVE: Ray Greeve, again 60 River

1 Road. In your expert opinion, there's a lot to it
2 what was just said and to me at least. If there is
3 ambient noise let's say that's what I would call the
4 wind and the brushes and the leaves making noise and
5 whatnot, there is -- there's got to be a difference
6 between that, the wind blows and then it stops, a
7 plane flying over then it stops.

8 Is there -- what, in your opinion, is the
9 difference between that versus a continuous noise?
10 Because there has to be --

11 THE WITNESS: That's a good question and
12 the best way I can answer that -- and I apologize if
13 it's not answering your question and please let me
14 know I can try to expound upon it even more.

15 When we went out there, when I stood out
16 there and tried not to move, because the crunching of
17 the snow underneath my boots was louder, so I tried
18 not to move for a half an hour, the lowest sound
19 level we measured factors out the wind, the brushes,
20 the intermittent noise and so forth. That's the
21 lowest that existed out there. That's the 40 to 42
22 dBA that we measured. That's continuous sound. That
23 is the ambient and that's the best I can compare the
24 way in industry that we compare a continuous noise to
25 an existing sound level is by using that lowest sound

1 level that exists out there factoring out the
2 intermittent noise sources that may intimately make
3 that sound level higher.

4 MR. GREEVE: Now you said earlier that
5 there's a plane flying over that determines the 40
6 dBA, right?

7 THE WITNESS: No.

8 MR. GREEVE: What did you mean by that
9 exactly then? Because a plane is not continuous.

10 THE WITNESS: What I testified to is that
11 the existing sound levels out there ranged from about
12 40 dBA at the lowest to 49 dBA at the highest. The
13 question I was asked about the airplanes was well
14 what contributed to the higher sound levels, the 49's
15 the 50's and so forth and probably even went a little
16 higher than that 1 or 2 times. Those were airplanes,
17 cars going by in the distance or 1 or 2 driving in
18 the local Buxton Road. That's what the higher sound
19 levels are.

20 The numbers I testified to, the 40 and 42
21 the lowest sound levels factor all that out, like
22 they don't exist. That's what the lowest sound
23 levels that I testified to are.

24 MR. GREEVE: So if you -- let me ask you
25 something else then. You're saying so it's 42 right

1 now and the machinery whatever you want to call it is
2 40 something as well.

3 THE WITNESS: 42.

4 MR. GREEVE: And the young lady on the
5 board asked if you add those up it's going to be
6 higher?

7 THE WITNESS: 45.

8 MR. GREEVE: Something like that. So how
9 do you explain if I sit in my backyard and listen to
10 the ambient noise and my neighbor's air conditioner
11 comes on and I clearly hear that according to you
12 it's not higher.

13 THE WITNESS: I don't know anything about
14 the orientation of your neighbor's air conditioner
15 how far away it is. It could be right up against
16 your patio or 200 feet away, I don't know so I can't
17 tell you it's going to be comparable to you sitting
18 in your backyard relaxing and your neighbor's air
19 conditioner going. I don't know what that is.

20 What I can tell you is at the fence like
21 barely audible. Further away from the fence like you
22 will not be able to hear the equipment at all at
23 ground level.

24 MR. GREEVE: Okay.

25 MS. VON RYDINGSVARD: Ursula Von

1 Rydingsvard, V-o-n R-y-d-i-n-g-s-v-a-r-d, 610 River
2 Road.

3 So you were saying 48 dBA is going to be
4 the absolute highest level with the 9 and a half foot
5 fence?

6 THE WITNESS: 43, is that what you said?

7 MS. VON RYDINGSVARD: 48 is that what
8 your said?

9 THE WITNESS: No, ma'am. What I said was
10 the existing sound levels ranged from about 40 to 42
11 at the lowest to about 48 or 49 dBA. That's the
12 existing sound levels. We predict the sound level of
13 42 dBA.

14 MS. VON RYDINGSVARD: So your equipment
15 alone will be 42 dBA?

16 THE WITNESS: Yes.

17 MS. VON RYDINGSVARD: Are you going to
18 then come back to the site to monitor this?

19 THE WITNESS: If it was a condition of
20 approval we can come back and do a post-installation
21 measurement and provide it to the board demonstrating
22 we meet the Ordinance.

23 MS. VON RYDINGSVARD: What if it's
24 higher?

25 THE WITNESS: Then we have to fix it.

1 The Ordinance is 50. We're designing it to quieter
2 than that. We're bound to do 50 dBA, this barrier
3 that I have recommended that we're going to - that
4 the civil engineer may or may not discuss tonight,
5 the purpose of that barrier is to get the sound level
6 below the limits that we are statutorily required to
7 have. In other words, if you have a speed limit of
8 65 on Route 80 this would be keeping us at 50.

9 MS. VON RYDINGSVARD: I get it, I get it.
10 If it ends up about.

11 MS. VON RYDINGSVARD: AT&T will come back
12 to the site if it's 51 dBA to fix it?

13 THE WITNESS: Yes.

14 MS. VON RYDINGSVARD: And possibly build
15 a higher barrier?

16 THE WITNESS: I will have to by law fix
17 it. We have no choice.

18 MS. VON RYDINGSVARD: How would one do
19 that since you're a sound expert?

20 THE WITNESS: I do not know because I do
21 not expect it to be that loud.

22 MS. VON RYDINGSVARD: I'm saying if it
23 were 51 and you came back to fix it this probably was
24 a problem somewhere else.

25 In your experience if you were somewhere

1 else ended up being higher --

2 THE WITNESS: If hypothetically I got a
3 phone call from AT&T that said, hi, Matt, you don't
4 know us but we have a site that's too loud, and I say
5 that's loud. We would have to come up with some way
6 to fix it. It could be put a roof on it, put an
7 enclosure around it, there are things we can do
8 however --

9 MS. FAIRWEATHER: Matt, let's go back to
10 something. The site that --

11 MS. VON RYDINGSVARD: No, no, no, this
12 was interesting.

13 MS. FAIRWEATHER: The sites that you have
14 designed that you have said dBA are going to be
15 whatever they were, 40, 42, 45, 49, and you have gone
16 back and tested, are you right?

17 THE WITNESS: Yes.

18 MS. VON RYDINGSVARD: 100 percent of the
19 time?

20 THE WITNESS: If I was not right my
21 company would not be in business for 60 years going
22 to this level of liability where I'm testifying
23 hundreds of times in municipal court on the record
24 and I'm asked to go back and do post-installation
25 measurements, I assure you, and I am not being crass

1 or pompous, if it did not work I would be would be
2 continuing to testify as an expert.

3 MS. VON RYDINGSVARD: So, just for the
4 record, you have always been 100 percent correct?

5 THE WITNESS: In terms of
6 environmental --

7 MS. VON RYDINGSVARD: "Yes" or "no."

8 MS. FAIRWEATHER: Please let him finish
9 answering.

10 THE WITNESS: I cannot think of an
11 application that I have worked on in the last
12 20 years where I have gone back and done measurements
13 and I was wrong.

14 MS. VON RYDINGSVARD: Not think, 100
15 percent accurate?

16 THE WITNESS: I can't answer your
17 question better than that. I apologize, I can't
18 answer any better than that.

19 CHAIRMAN VIVONA: If it's over 50 dBA
20 it's illegal.

21 MS. VON RYDINGSVARD: Right, but who's
22 going to fix it?

23 CHAIRMAN VIVONA: The people that install
24 it would fix it.

25 THE WITNESS: We would.

1 MR. WEISGERBER: Brad Weisgerber, 11
2 Huron. To the same point you're testifying that you
3 estimate it to be in the low forties and I understand
4 that and that's fine. I also hear that the legal
5 limit is 50 and she asked what if it comes back and
6 it's 48, which is still legal and according to your
7 estimates you measured 42 to 49, the high end was 49
8 and you claim maybe an airplane. If an airplane
9 going overhead makes the sound 49 and it's legal but
10 clearly no one wants to hear an airplane going over
11 their house 24 hours a day.

12 So what happens if you testify here today
13 it's going to create hypothetically 42 dBA's and it
14 creates 49; that's still legal they can't impose
15 anything on you, but you're telling us that you're
16 expecting 42?

17 MS. FAIRWEATHER: I will tell you as the
18 AT&T attorney as a condition of approval, lower than
19 your town Ordinance and D.E.P. requirements this site
20 will operate at 42 dBA. I will take that as a
21 condition of approval. We have represented it here
22 at the board, we are agreeing to something that we
23 don't have to do by law but that is what our sound
24 expert says, we have used him many times before.

25 And his wife may not think he's 100

1 percent right but as far as I'm concerned in my
2 application I think he is. His wife, my noise expert
3 guy's wife. His wife may not think he's 100 all of
4 the time but when I have used him he is.

5 MR. WEISGERBER: Okay. And are your
6 findings or recordings are they available anywhere to
7 listen if one wanted to?

8 THE WITNESS: I didn't do audio
9 recordings I made measurements on a sound level meter
10 Type 1 sound level analyzer. So no audio recordings
11 per se.

12 MR. WEISGERBER: Is one able to purchase
13 that equipment themselves and measure it?

14 THE WITNESS: Sure.

15 MR. WEISGERBER: Where would I find one?

16 THE WITNESS: We used a Bruel & Kjaer
17 Type 2270 Sound Level Meter. If you would like I
18 would imagine you could purchase something a lot less
19 expensive than that and probably get a pretty decent
20 number out there.

21 MR. WEISGERBER: Okay. Do you have any
22 suggestions on where I can purchase it to be
23 accurate?

24 THE WITNESS: Sure. I would -- to be
25 honest I would Google Sound Level Meter and see what

1 you get.

2 MR. WEISGERBER: Thank you.

3 MS. PETERSON: Christine Peterson again.
4 I would like to compliment you, as a fellow engineer,
5 I think you have been the least pompous engineer we
6 have had testify so far.

7 THE WITNESS: Thank you.

8 MS. FAIRWEATHER: That was an insult to
9 my other engineers.

10 MS. PETERSON: No, it was compliment to
11 this engineer.

12 THE WITNESS: Thank you.

13 MS. PETERSON: You testified that you did
14 your measurements on the south side of the property
15 but I believe you also testified that it was the
16 northwest property line that was the closest to the
17 equipment?

18 THE WITNESS: Yes, ma'am.

19 MS. PETERSON: And so I'm wondering if it
20 isn't more appropriate to be doing the measurements
21 at that --

22 THE WITNESS: I understand your point the
23 reason we didn't do measurements on the north or west
24 property is just we didn't have permission to access
25 that site. I don't generally make a habit of going

1 and walking on other people's property to do noise
2 measurements unless I'm invited.

3 The ambient sound level on one side of
4 the site versus the other side of the site in my
5 professional opinion is going to be pretty much the
6 same. Now the predicted sound levels are going to
7 vary greatly because on the north and west property
8 lines we're 12 and 13 feet the equipment from the
9 fence, where the other property lines are maybe as
10 much as 80 feet.

11 So the predicted sound levels were at the
12 closest property line but we made a measurement in
13 our easement on that south side, the south property,
14 but the ambient, to be honest with you, is probably
15 going to be the same in my opinion on all four sides.

16 I mean if you could imagine there was a
17 road on one side of the site that wasn't on the
18 other, a highway or something that produced a lot
19 more noise, then the ambient on one side of the site
20 might be louder than the other, but we're generally
21 talking about a site that is 100 feet by 100 feet
22 square the ambient is going to be pretty much the
23 same on all four sides.

24 And it was just the ease of access why I
25 chose the south.

1 MS. PETERSON: I would also like to
2 confirm that February 27th was a Thursday. I just
3 looked it up, my calendar says it was a Thursday. So
4 I'm just also wondering if it might be quieter on a
5 Sunday?

6 THE WITNESS: That's a good point however
7 my policy typically is I don't do measurements on
8 weekends and it has nothing to do with time and a
9 half or anything like that. It's simply because
10 weekends can be very atypical in a community, you can
11 have something going on, traffic patterns are
12 different. I prefer to get measurements daytime and
13 nighttime in the middle of the week when weather is
14 as acceptable as you can get for the worst winter in
15 my lifetime, but no winds, no rain, and relatively
16 decent temperatures between 30 and 80 degrees
17 Farenheit.

18 But we really try to stay away from
19 weekends because they're atypical.

20 MS. PETERSON: As you were speaking about
21 sound characteristics and winter versus summer do
22 leaves on the trees have any effect on reflection of
23 the sound back down?

24 THE WITNESS: Reflection, no. They may
25 attenuate sound if you have a substantial amount of

1 trees or vegetation between the noise source and the
2 noise receiver but that doesn't really exist in this
3 case.

4 MS. PETERSON: But currently the leaves
5 are off the trees and there are trees all around that
6 site. So when you have leaves above the equipment
7 around that site will that create like a barrier that
8 might reflect the sound back down? That is my
9 question.

10 THE WITNESS: I don't believe so, no.

11 MS. PETERSON: So just to summarize I
12 believe I heard you say, I would like to confirm,
13 that there are different sound characteristics
14 between an ambient type of natural sound and the
15 sound being produced by mechanical equipment.

16 THE WITNESS: Sure.

17 MS. PETERSON: And that there will be an
18 incremental increase of approximately 3 dBA.

19 THE WITNESS: Approximately, yes.

20 MS. PETERSON: And that the noise
21 increase will require an additional variance for
22 the --

23 THE WITNESS: The noise increase? No,
24 the height of the barrier increases.

25 MS. PETERSON: Barrier increase to --

1 THE WITNESS: I just want to be careful,
2 make sure the record is correct.

3 MS. PETERSON: -- will require additional
4 variance?

5 MS. FAIRWEATHER: No, where we're seeking
6 the variance, the proposed fence was going to be 8
7 feet high and we are receiving a variance anyway
8 because the Ordinance allows six feet, so we were
9 going for a fence variance.

10 MS. PETERSON: So a change in the
11 variance for a higher...

12 MS. FAIRWEATHER: A foot and a half
13 change in the variance we were already seeking.

14 MS. PETERSON: And the 50 dBA you
15 referred to that is the State law, right?

16 THE WITNESS: Correct.

17 MS. PETERSON: I was reading through
18 Chatham's municipal zoning ordinance, and the board
19 is going to know better than I, but I read in the
20 commercial district that it states "no activity shall
21 be carried on that will create any of the following
22 conditions beyond the limits of the property which
23 will be perceptible to the human senses", one of
24 those being noise. And I believe the testimony is
25 that it will be barely perceptible?

1 THE WITNESS: That is my testimony, yes

2 MS. PETERSON: Thank you.

3 MR. GREEVE: Ray Greeve again. You
4 testified that the high end of the ambient noise was
5 48, right?

6 THE WITNESS: Yes, I believe so, 48 to
7 49.

8 MR. GREEVE: 49. And you also testified
9 that if you add the two it's plus three. If it's 49
10 plus 3, isn't that over 50?

11 THE WITNESS: No. What I testified to is
12 that if two values, if the ambient and the predicted
13 were the same value, 42 and 42, that the new number
14 would be three decibels higher, approximately 45.

15 However, if we're producing 42 and the
16 ambient is 49 the sound level would be 49 because the
17 ambient wouldn't mask, essentially drown out, the
18 sound level of the telecom equipment.

19 MR. GREEVE: Okay.

20 MR. SARLE: George Sarle, 8 Kincaid. One
21 question that you said was asked of you, do you think
22 you would hear it in the person's second floor and
23 your response was I don't believe that you would.
24 Why wouldn't you hear that noise from that unit if
25 you would hear an air conditioner from 100 feet away

1 and that house is closer?

2 THE WITNESS: I think we're mixing
3 testimony and I apologize, I'm just trying to
4 clarify.

5 I was asked a question of what is 40 to
6 45 dBA and I compared that to an external air
7 conditioning unit operating at 100 feet. I said
8 nothing about if it was audible or inaudible. I also
9 testified that at the nearest house which I believe
10 is to the west that with an open window inside the
11 bedroom I don't believe our equipment will be
12 audible.

13 I want to make sure I'm separating those
14 two. I didn't combine those two statements into what
15 you said. Those were my testimony.

16 MR. SARLE: And where is that tower that
17 you gave us a picture of?

18 THE WITNESS: That's in Hanover Township
19 off of Troy Road. Just look for the water tower, you
20 can't miss it.

21 MS. KREUZER: Kim Kreuzer, 24 Van Houton.

22 You spoke before about when you were
23 taking the sound level measurements you were standing
24 out in the snow. And we all know that in February we
25 were covered with snow. Curious if these weather

1 impacts has an effect on the sound.

2 THE WITNESS: At these distances, no. But
3 at very far distances I'm sure a lot of people can
4 equate, a lot of times in the warm summer and then
5 when it gets cold at night it sounds like Route 24 is
6 in your backyard or something like that. At very far
7 distances the weather can mess with sound. It
8 doesn't make the speed of sound any faster, it just
9 tends to not attenuate the noise.

10 But at these distances, we're talking 13
11 feet from the equipment to the property line, no, I
12 don't expect anything meteorologically to effect
13 those sound levels. If anything, crunching on snow
14 is going to make more noise than our equipment will.

15 MS. KREUZER: What about 100 feet to the
16 house line?

17 THE WITNESS: Even at 100 feet we're not
18 talking about anything -- in order to have a
19 meteorological, something in the weather that effects
20 noise one way or the other we need to be a quarter
21 mile or something further than that. And the noise
22 from this equipment at 100 feet I don't expect --
23 will be so far below the background sound level that
24 it is not going to be audible.

25 MS. KREUZER: So as a resident who lives

1 almost a quarter of a mile from the site will I then
2 hear it often?

3 THE WITNESS: I don't say this often, but
4 I can guarantee you, you will not hear this equipment
5 from your house.

6 MS. KREUZER: Thank you.

7 THE WITNESS: Thank you.

8 MS. STAGAARD: Tracey Stagaard, 12
9 Buxton. First of all the picture you gave us on Troy
10 Road is that a residential area like ours?

11 THE WITNESS: Yes.

12 MS. STAGAARD: So the houses are as
13 close?

14 THE WITNESS: No. But it is a
15 residential area, and it's an existing water tower.

16 MS. STAGAARD: And how far are the houses
17 on Troy Road from that?

18 THE WITNESS: I don't remember. I really
19 don't remember.

20 MS. STAGAARD: Definitely not as close as
21 what we're dealing with on Buxton, right?

22 THE WITNESS: The fence, the boundary of
23 the site is a little bit larger than what we're
24 proposing here, where we did our evaluation. The
25 houses are slightly further back but if you were to

1 look at this, if you pull this up on Google Earth you
2 will see houses all the way around it and a big blue
3 dot in the middle.

4 MS. STAGAARD: But they are further back
5 definitely, right?

6 THE WITNESS: Yes.

7 MS. STAGAARD: That was just my point.

8 THE WITNESS: Yes.

9 MS. STAGAARD: The other thing, I just
10 don't know if you're aware of this, since I grew up
11 in this town I have never lost electricity as much as
12 I have on the Buxton Road. And not from Sandy but
13 the storm before we were without electricity for
14 12 days. It was totally silent on our road.

15 I want to know what would happen, then,
16 while the rest of us had no electricity, truthfully
17 we were the last people in the Township to get
18 electricity, besides Highland Avenue in the Borough,
19 what would happen with that area?

20 THE WITNESS: I don't know the exact
21 procedure as to at what point but at some point they
22 would be bringing in a temporary emergency generator
23 so that the cell service does not go down. I don't
24 know if that's two hours, 8 hours or 3 days after to
25 be honest with you.

1 MS. STAGAARD: My point is for 12 days
2 we're all without electricity but the cell tower will
3 be running and we'll be able to hear that.

4 THE WITNESS: There would be an emergency
5 generator brought to the site on a trailer.

6 MS. FAIRWEATHER: That was testified to.

7 MS. STAGAARD: So can that generator do
8 our houses, too, while its there?

9 THE WITNESS: Bring a really long
10 extension cord.

11 CHAIRMAN VIVONA: If I might throw in,
12 commercial generators have silent packages where they
13 are extremely quiet. They're not going to bring in a
14 little Home Depot generator. It would probably be a
15 diesel, probably 20 kW which has extensive insulation
16 and muffler system, so they're very quiet.

17 MS. STAGAARD: You can imagine how if we
18 don't have electricity but the cell tower is still
19 working and we're freezing to death it's going to be
20 driving me crazy.

21 CHAIRMAN VIVONA: I have a generator. I
22 know exactly what you're talking about.

23 Any other questions for Mr. MURL?

24 MR. POLISE: Can I ask a few more? Can
25 you look at Drawing Z02. Before the civil engineer

1 gets up I just want to make sure what pieces of
2 equipment did you model in your noise study?

3 Is it every piece in here or is it just
4 the cabinets? What do you model?

5 THE WITNESS: We model all the cabinets
6 in that box that have any type of rotating
7 circulating equipment or has electric power
8 producing, in other words, produces a hum. Anything.

9 MR. POLISE: The battery cabinets; the
10 power; the amps cabinets?

11 THE WITNESS: Yes.

12 MR. POLISE: All of it?

13 THE WITNESS: All of it.

14 MR. POLISE: That was it.

15 MR. STYPLE: By the photograph you talked
16 about there was an attempt to put some landscaping
17 around it. Do those evergreens provide an additional
18 buffering for sound?

19 THE WITNESS: Well the fact that they're
20 below the barrier, by and large they're below the
21 barrier, unless they were really stacked, I mean
22 alternating trunks at some pretty decent thickness,
23 generally no. It's more of a psychological. I
24 believe this town -- actually, I know this town
25 because it's where my office is, likes to have

1 screening in front of screens so that's why it was
2 put there. But there really isn't any acoustical
3 benefit to that vegetation being put there.

4 MS. KENNY: I have a question. If you
5 moved the equipment base more towards the ridge
6 towards the south side as opposed to the front, would
7 that change the sound level of the -- of the children
8 on the swing set would hear?

9 THE WITNESS: Two things. The first just
10 for the purposes I am looking at Z02 since I -- is
11 that okay for the record?

12 MR. SHAW: Reference to the sheet is
13 fine.

14 MS. KENNY: I'm on Z01.

15 MS. FAIRWEATHER: You're just talking
16 about moving the equipment from the front to the
17 back?

18 MS. KENNY: Yes. I can't remember if we
19 talked about why it had to be there or not but I'm
20 just wondering why not put it by the ridge where
21 there's fewer property owners?

22 THE WITNESS: I don't know if it can be
23 moved or why it was located in the north being up, in
24 the northwest corner of this site, I really don't.
25 May be a better question for the civil.

1 However, in response to your first
2 question if it were moved away from that west
3 property line, and again, I believe -- and, I
4 apologize, I have lost the face of the resident who
5 has the play set -- I believe their playground is
6 almost -- it's in the same vicinity of this. It's
7 adjacent to the northwest corner of our property. Is
8 that about fair?

9 So if we move it further away from there
10 then the sound levels at the playground that could be
11 experienced would be lower, but maybe the civil --
12 maybe not tonight.

13 MS. KENNY: I thought that was what you
14 were going to say but I didn't want you to leave
15 without testifying about whether the sound level
16 would be different.

17 MS. FAIRWEATHER: What would be
18 different? Just so we know what we're talking about.

19 THE WITNESS: Generally speaking every
20 time we double the distance, and the rule of thumb,
21 big rule of thumb, if we double the distance from the
22 noise source to the receiver, the sound level will
23 drop by about 6 dBA. So if we were to go from this
24 13-foot dimension, which is the equipment to the west
25 property line, to let's say 26 to 30 feet, the sound

1 level would now be whatever 42 minus six, help me
2 out, I'm an engineer -- if we double the distance
3 from 13 feet, the equipment to the property line, we
4 would expect a 6 decibel drop. I testified to 42
5 dBA, I would expect sound levels in the vicinity of
6 about 36 dBA. But it's never going to get there
7 because the ambient is 40 dBA.

8 So at some point you're really -- again,
9 that floor I talked about of about 40 dBA, once you
10 get below the floor the equipment can be anywhere you
11 want and the reality is it's going to be in that
12 floor or in the background.

13 MR. SHAW: Would that have the effect of
14 eliminating any increase, what would be perceived as
15 an increase, if you were to move it back that
16 distance there would be no perceived increase?

17 THE WITNESS: At the west property line,
18 yes.

19 MR. SHAW: West property line?

20 THE WITNESS: Sure.

21 MS. KENNY: Two more questions. What is
22 the life span of the wooden structure that would go
23 around the equipment?

24 And like say 20 years from now it's
25 rotting and the sound levels are going up and

1 conditions of approval only said test for two years
2 or something?

3 THE WITNESS: I can tell you that the
4 first product of this that I recommended was around
5 1986 or '87 in Eatontown, New Jersey. I went passed
6 it again a year and a half ago and it's still holding
7 up. The manufacturer says that their barriers have
8 been installed in the Atlanta area, which is where
9 the company is from, for 25-plus years. And unless
10 somebody has -- because they're highway noise
11 barriers -- driven into them, they have had no
12 appreciable wood rot.

13 Again, keeping in mind that the highway
14 noise barriers that you see up and down New Jersey
15 have a shelf life of about 30 to 35 years before they
16 have to start crumbling at the base especially if
17 they get a lot of salt.

18 This particular barrier, again, 25 years
19 I have had experience I haven't seen anything where
20 it has rotted or unless somebody blows into one or a
21 lot of salt. And because of the location on the site
22 I don't expect any one of those situations to occur.

23 (REQ) MS. KENNY: I wanted to request, since
24 you offered to do it, sound measurements on the
25 equipment without the barrier.

1 (REQ) And then I don't know how the homeowners
2 feel about the swing set, but I was curious about
3 that as well, the platform of the swing set.

4 (REQ) And another resident was Kincaid Lane. I
5 don't know where we left it. Did you testify that
6 definitely, for sure, the sound -- she was saying
7 that she thinks the sound -- she hear's more because
8 she's lower.

9 THE WITNESS: I am not familiar with
10 Kincaid.

11 MS. KENNY: Kincaid Lane is the street
12 below the tower, if you go down the ridge.

13 THE WITNESS: Down the ridge?

14 MS. KENNY: Yes.

15 THE WITNESS: If the board wants as a
16 condition of approval to run measurements on Kincaid,
17 that would be fine.

18 MS. KENNY: I don't want you to do it if
19 it's going to be fruitless. That's what I'm saying.

20 She's saying she thinks in her experience
21 that she hear's more because of what's up there
22 because she's lower.

23 Is that true?

24 THE WITNESS: I don't believe anyone on
25 the bottom of the ridge is going to hear this

1 equipment ever.

2 MS. KENNY: That's fine with me, just
3 those other two.

4 MS. FAIRWEATHER: So I understand it, you
5 want him to make measurements of what it would be
6 like with the sound barrier?

7 MS. KENNY: No, the equipment without the
8 sound barrier. He said it would be over 50.

9 THE WITNESS: You want me to calculate
10 the sound level without the barrier?

11 MS. KENNY: I want to know what the
12 difference is, yeah, where we are at before the sound
13 barrier.

14 MS. FAIRWEATHER: Okay.

15 THE WITNESS: I'm trying to think if I
16 did that. Yes, I can do that.

17 MR. POLISE: I thought you started with
18 that?

19 MS. KENNY: He said over 50.

20 THE WITNESS: Yes, it's definitely over
21 50, I could tell you that. It would not comply with
22 the nighttime noise regulation.

23 MS. KENNY: Right, but is it like 52 or
24 60? That's what I'm wondering. It's information.

25 THE WITNESS: I can provide that

1 information but my memory is that it's at least 10 or
2 12 decibels higher so it would be somewhere in the
3 55-ish range, maybe higher than that.

4 MS. KENNY: Okay. Would you mind getting
5 us accurate...

6 THE WITNESS: I'm going from memory now.
7 For the record that's my memory at 10:45 at night.
8 I'm not perfect, remember.

9 I can provide that to the board.

10 MS. KENNY: And I don't know about the
11 swing set, if we can talk about that, if that would
12 be a useful thing because they can always move the
13 swing set. I don't know but you testified that that
14 would be louder?

15 THE WITNESS: The question I was asked is
16 if the platform was about six feet and I believe he's
17 about 6'3' or something like that, you would be
18 looking over the barrier. And would it be higher,
19 yes.

20 MS. KENNY: But again you can't say
21 whether it would be 2 or 3 or 8?

22 THE WITNESS: I can calculate that, sure.

23 MS. KENNY: Okay.

24 MR. SHAW: If the property owner wanted
25 to provide access to you to make that measurements,

1 you would be able to make that?

2 THE WITNESS: Granting a favorable
3 approval by the board and the equipment installed?

4 MR. SHAW: I don't think they're looking
5 about after the approval.

6 THE WITNESS: I can calculate it without
7 their -- I don't need to be on their property to
8 calculate the sound level. To measure the sound
9 level if it were there, yes, I would. I just want to
10 make sure I'm clear, for the record. We could
11 calculate the level.

12 My opinion is that the sound level
13 without the barrier would be comparable to what the
14 sound level would be on top of the platform looking
15 over the barrier because you're at the same distance
16 but you're now 12 and a half feet tall looking over a
17 9 and a half foot high wall three feet off the fence.

18 But I will be happy to provide that
19 information to the board if the board would like it.

20 MS. KENNY: I think it would be good for
21 the residents to hear. The more data I think is
22 helpful.

23 THE WITNESS: Okey-dokey.

24 CHAIRMAN VIVONA: It would be nice if you
25 had some sort of a recording that you could play and

1 show your meter that this is 42 decibels and you have
2 that noise or whatever, if you have...

3 THE WITNESS: I try to shy away from
4 making recordings only because if you play a recorded
5 sound in an enclosed room environment to whatever
6 extent the room is going to colloquially mess with
7 your noise, it will.

8 So I know other people that do do that,
9 they'll play a sound and say, see, that's what you
10 are going to hear. I really try to shy away from
11 that because playing an outdoor sound inside will
12 have a different perception. And if the goal of that
13 exercise is to say here is what you will hear, I'm
14 afraid that is not going to end up the way you are
15 really going to hear it.

16 MS. PORTER: I'm Catherine Porter, 3
17 Huron Drive. Right next door to the Weisgerbers but
18 I have been there a lot longer than they have. So we
19 have heard a lot of things that go on and off of that
20 water tower.

21 Do I understand correctly that you
22 measured the ambient sound level exactly twice on one
23 day, 12-hour period?

24 THE WITNESS: They were two half hours
25 periods in the same day.

1 MR. PORTER: Seems inadequate to me. I
2 just would like to point out that we have had
3 experience over sometime with the issue of
4 enforcement of noise levels. There was a period, for
5 example, when every 20 years I think it is they paint
6 the water tower, clean it and paint it. We
7 personally measured decibel levels way over 50 day
8 after day after day. Called the Township, called
9 everybody we could possibly think of and there was no
10 relief ever.

11 So my question I think is, is there any
12 kind of continuous monitoring of what's going to be
13 going on there so we can find out some way that we
14 can do something about it if we face another
15 situation like that?

16 Possibly a question for the Board.

17 MS. PETERSON: Christine Peterson again.
18 With your predictions on the sound levels did you do
19 a chart at different frequencies, what the kilohertz
20 range was?

21 THE WITNESS: Yes, I did, from 20 to
22 20,000 Hertz. In other words the octave band set of
23 frequencies from 31 and a half hertz to 8,000 hertz.
24 Yes.

25 MS. PETERSON: That's going to be

1 submitted into the evidence?

2 THE WITNESS: I have not...

3 MS. FAIRWEATHER: No, we're not
4 submitting a written report. It's his testimony here
5 as an expert.

6 MS. PETERSON: There was a question about
7 bird life and wildlife, which is an excellent
8 question. I do know from having rented the property
9 right next to the water tower that there is a hawk's
10 nest located right behind there as well as other bird
11 life, and there has been some studies on the effects
12 of different frequencies on wildlife.

13 So I think to address that concern it's a
14 worthwhile submission to the record.

15 THE WITNESS: I don't believe there will
16 be any sound from this application that will be
17 anywhere near what would be considered a threshold of
18 damaging to any wildlife in the vicinity.

19 MS. PETERSON: Well my question has to do
20 with the frequencies because they are citing decibels
21 as low as 20 and 30, but has to do with the
22 frequencies.

23 THE WITNESS: In the higher frequencies,
24 correct. This equipment, typically air conditioners,
25 produce a lower hum in the 120 hertz range which is

1 no where near the 10,000 hertz that tends to bother
2 birds, or the very low frequency of windmills which
3 is in the 8 hertz range that tends to effect bats and
4 birds. This is nothing like that.

5 MS. PETERSON: Thank you.

6 THE WITNESS: Thank you.

7 MR. WEISGERBER: My question is about
8 height of the sound barrier.

9 MS. FAIRWEATHER: That barrier was only
10 submitted to show what it looks like. It wasn't
11 submitted to say this is going to be the same height.
12 All it was was to show what it would look like and
13 it's another site and it was just to show.

14 MR. WEISGERBER: Not this one
15 specifically but is the question of the height of the
16 sound barrier for another engineer?

17 THE WITNESS: That height of that barrier
18 is about 9 feet to the concrete pad. There's about a
19 six-inch pad underneath it. So if you were to go
20 from grass to top it's about the same.

21 MR. WEISGERBER: I'm not talking about
22 this specific one, the one that you're prosing.

23 MS. FAIRWEATHER: Yes, 9.5, he's the guy.
24 He told us it has to be 9.5.

25 MR. WEISGERBER: And the current fence is

1 six feet?

2 MS. FAIRWEATHER: I think it's 6 feet and
3 then 8' on one side. The fence varies in height
4 right now, the existing fence varies.

5 MR. WEISGERBER: So my fence on my side
6 is 6 feet tall, I can see over it with my eyes. The
7 fence on the other side, because the ground is lower,
8 is 8 feet tall. He is saying it has to be 9 feet
9 tall so clearly this is going to rise above my fence
10 which is going to make me have to raise my fence in
11 order to block the site of anything on the other side
12 of it.

13 UNIDENTIFIED SPEAKER: And need a
14 variance for that?

15 MR. WEISGERBER: That means I have to
16 raise my fence.

17 MS. WEISGERBER: Are you guys cool with
18 that?

19 MR. WEISGERBER: So I have to come back
20 to seek a variance to purchase a new fence because of
21 what you're proposing to minimize the sound, correct?

22 MS. FAIRWEATHER: What you do is what you
23 do. If you want to change out your fence then you
24 change out your fence.

25 MR. WEISGERBER: My question is, if I do

1 not want to see your sound barrier fence I'm going to
2 have to raise my fence?

3 MS. FAIRWEATHER: Okay.

4 MR. WEISGERBER: Correct? I guess that's
5 on the record.

6 MR. SHAW: I believe there's an exterior
7 fence --

8 MR. WEISGERBER: There is.

9 MR. SHAW: -- outside of the sound barrier
10 fence which was originally going to be -- and they're
11 seeking a variance to have it constructed at 8 feet.
12 They're now amending their application to have that
13 exterior perimeter fence raised to 9 and a half feet.

14 MR. WEISGERBER: That's my point. Right
15 now it's below my fence. The fences are side by
16 side. I cannot see their fence. When it's raised up
17 I will be able to see their fence. Okay, great.

18 Is there any Township law as to how high
19 a fence is?

20 MR. SHAW: That's why they're seeking a
21 variance.

22 CHAIRMAN VIVONA: Six feet without a
23 variance.

24 MR. WEISGERBER: So that's one of the
25 decisions?

1 CHAIRMAN VIVONA: They're seeking a
2 variance to help shield what they're looking to put
3 up and to help with noise prevention. They're not
4 looking to put up a 9 foot fence just to annoy you.

5 MR. WEISGERBER: I understand that but
6 whether I'm looking at their wooden fence or their
7 mechanical equipment, I'm still looking at something.

8 CHAIRMAN VIVONA: Right.

9 MR. WEISGERBER: Which is not currently
10 there. So I understand the variance, I was just
11 clarifying.

12 MR. MICHAELS: Excuse me, Mr. Chairman,
13 if I can just get clarification that the fence that
14 is going to be around the entire or this side of the
15 water tower's property is going to be 9 and a half
16 feet?

17 I thought it was just going to be the
18 enclosure around the equipment cabinets.

19 MS. FAIRWEATHER: We did say just the
20 equipment. We're proposing the enclosure around the
21 equipment cabinets.

22 And if the Board would like us to do the
23 fence all around on the outside to match it so
24 aesthetically it was all the same, you didn't have a
25 shorter and a taller, one side is 8-foot, one side 6

1 foot, it's kind of a mess, we were just trying to
2 clean it up and make it look even.

3 CHAIRMAN VIVONA: Yes, but not with a 9
4 and a half foot fence surrounding the entire
5 perimeter. I think that would be totally
6 overbearing.

7 MS. FAIRWEATHER: That's fine. We'll
8 just replace what's there to make it look nice,
9 whatever. Whatever the board would want.

10 MR. DREYFUS: David Dreyfus, 29 Huron.
11 My only question is whether in response to questions
12 from the Board this witness is going to be doing
13 additional testing and supplement the record with the
14 test results?

15 MRS. FAIRWEATHER: The board has asked
16 him to do two additional tests, one was to do --
17 well, calculations -- to do calculations on the side
18 by the play set on the platform there, and then at
19 6'3". And then the other calculation was what would
20 the sound be like with no barrier.

21 MR. DREYFUS: So he's going to do that
22 testing and then report to everyone about the test?

23 MRS. FAIRWEATHER: He's going to
24 calculate it. He's not going to go out and test it
25 with equipment because it's not there yet.

1 So he's going to calculate it with all
2 the information he has. He will be at the next
3 meeting to testify to that.

4 MR. DREYFUS: Okay, that was my question.
5 Thank you.

6 MRS. FAIRWEATHER: Sure.

7 CHAIRMAN VIVONA: It's almost 11 o'clock.
8 We like to stop at 11. If nobody has further
9 questions for this witness --

10 MS. FAIRWEATHER: Can I just clarify
11 something, Mr. Chair? All the questions that what he
12 testified tonight have been asked, so at the next
13 hearing, instead of reopening everything again and
14 having all the same questions, at the next hearing
15 people will ask him questions on what he testifies to
16 at the next hearing, correct?

17 CHAIRMAN VIVONA: Correct.

18 MRS. FAIRWEATHER: We're going to limit?

19 CHAIRMAN VIVONA: Correct. I think we
20 have a good representation of the neighborhood, it
21 all will be available on the record.

22 MR. SHAW: Minutes are approved at the
23 meeting. After the minutes are approved they'll be
24 put up.

25 The transcripts for the last three

1 meetings, were approved this evening so they will be
2 up on the website so anyone who wants to see them can
3 do so.

4 MS. MESSING: You can read the
5 transcripts? Auditory or written?

6 CHAIRMAN VIVONA: They're written.

7 MR. SHAW: They're written transcripts,
8 the court stenographer's transcripts.

9 MS. FAIRWEATHER: Mr. Chair, can we
10 please go over the next date to make sure that Matt
11 is available?

12 CHAIRMAN VIVONA: Yes, one minute.

13 MR. SHAW: The next meeting date would be
14 April 17th.

15 MS. WEISGERBER: Just a quick question,
16 that's Holy Thursday?

17 CHAIRMAN VIVONA: Yes.

18 MS. WEISGERBER: That could be a conflict
19 for some people. A lot of people go away because
20 they're off on Friday. And if this is going to be
21 where everyone is able to make public comment, I
22 think it's fair to take that into consideration.

23 CHAIRMAN VIVONA: That's the Holy Day.
24 She might have already changed it already. We're
25 going to check.

1 MR. POLISE: Are we going to get revised
2 drawings showing the sound barrier?

3 MS. FAIRWEATHER: Yes, you are, sir.

4 MR. SHAW: Before anyone goes we have to
5 set the next date. We may do this at our work
6 session which is a couple of days earlier. Kali has
7 to double-check the calendar to check what the
8 meeting schedule is. So I would suggest people just
9 hang out a minute or two so we get that. No new
10 legal notice is going out, we'll have to announce
11 where it's going to.

12 MS. PETERSON: I have a question for the
13 board. Christine Peterson.

14 If we are going to submit video
15 testimony, how would you like that submitted?

16 MR. SHAW: Video testimony?

17 MS. PETERSON: Yes.

18 MR. SHAW: We take live testimony.

19 CHAIRMAN VIVONA: What do you mean by
20 "video"?

21 MR. SHAW: You have a presentation you
22 want to make of some sort?

23 MS. PETERSON: I have videos of calls
24 being made in the gap areas.

25 MR. SHAW: I don't know whether they're

1 videos or not, factual statements are I think there's
2 already been a statement made that if they're
3 ordinary cell coverage, I believe it's the
4 1800 megahertz, that there already is basically
5 coverage throughout the whole area. What there is
6 not is a satisfactory level of coverage at some other
7 light frequency bands.

8 But certainly you don't need to show a
9 video of people making a phone call. You can state
10 for the record that phone calls were made by these
11 persons at such and such a time and they successfully
12 made the calls.

13 MS. PETERSON: Okay.

14 MR. SHAW: There really isn't a mechanism
15 for putting videotapes of people placing phone calls
16 into the record.

17 MS. PETERSON: Okay. Is the board able
18 to receive links to view videos for their own
19 purposes?

20 MR. SHAW: I would say that's not -- we
21 have to do something that could be turned into part
22 of a record. There certainly can be electronic
23 documents but, I mean, it would be preferable if you
24 could just present on the record factually what was
25 done. Your sworn testimony is your sworn testimony

1 MS. PETERSON: Okay, thank you.

2 MR. SHAW: So the 17th of April currently
3 is the regularly scheduled meeting. It is possible
4 if the board wanted to and if it was convenient, if
5 you did not want to have the board meeting on Maundy
6 Thursday, as we Episcopalians say, if the members
7 were available and if you were available also with
8 your witnesses we could convert our work session
9 which is April 9th, a Wednesday, to a Special Meeting
10 for that night.

11 MS. FAIRWEATHER: Actually April 9th
12 would be better for us because my appraiser is
13 actually going on a family vacation from April 11th
14 to the 18th. So April 9th would be better for us.

15 And also Matt was supposed to go with his
16 family on the 18th.

17 MR. SHAW: A question, we have -- this is
18 for our own matter, there are also two other
19 applications that are present. What I would suggest,
20 see if they can publish for April 9th that's all we
21 have to do.

22 Will the Board members be able to?

23 MS. ROMANO: I won't be able to.

24 MR. SHAW: I would say at this point it's
25 unlikely we'll be finishing that night because in

1 addition to the engineer, the sound engineer will
2 come back, your site engineer will be back.

3 MS. FAIRWEATHER: My appraiser.

4 MR. SHAW: Your appraiser will be back.

5 MRS. FAIRWEATHER: And then my planner.

6 MR. SHAW: And then your planner.

7 So we are not likely -- I had earlier
8 said that I thought that the public might have their
9 opportunity to start putting their own public
10 personal opinions on the record, I suspect that from
11 what I have heard it's not going to be April 9th it
12 will be the May meeting, given the procedures which
13 have gone on and the timing for the hearings.

14 So just as an announcement, there will be
15 no further public notices sent out. This matter will
16 be continued and carried to April 9th.

17 MS. FAIRWEATHER: 7:30?

18 MR. SHAW: At 7:30.

19 (REQ) Counsel will provide an extension of time
20 for action?

21 MS. FAIRWEATHER: Yes, counsel will and
22 fax it tomorrow.

23 MR. SHAW: And Kali will advertise the
24 work session for April 9th as a Special Meeting for
25 this application.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MS. KENNY: I make a motion to adjourn.

CHAIRMAN VIVONA: Motion to adjourn

anybody?

(Hearing adjourned at 11:00 p.m.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

C E R T I F I C A T E

I, ANGELA C. BUONANTUONO, a Notary Public and Certified Court Reporter of the State of New Jersey and Registered Professional Reporter, do hereby certify that prior to the commencement of the hearing, the witnesses were duly sworn to testify the truth, the whole truth and nothing but the truth.

I DO FURTHER CERTIFY that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

Angela C. Buonantuono, CCR, RPR, CLR
Notary Public of the State of New Jersey
License No. 30XI00233100

&	120 51:22 156:25	22nd 77:18	4's 84:22
& 27:17 74:7 133:16	125 74:15	23 3:4,22 27:19	40 78:6,9 79:12,17
0	13 54:21 92:21	24 27:19 54:14	79:25 90:21,23 91:3
0 95:4 112:2,5	135:8 141:10	56:19 79:10 132:11	91:4 94:8,10,22
01 98:4	147:24 148:3	140:21 141:5	95:6 96:5 100:11
07960-4214 2:20	13-62-105 1:8	24/7 25:9 122:21	101:21 102:11,12
1	14 54:21	25 56:6 84:17 149:9	102:17,23 103:1,7
1 3:23 100:19	145 27:16	149:18	103:15,22 110:4,7
115:25 126:16,17	149 3:22	26 147:25	110:20 111:3,7,17
133:10	15 23:15 84:15	27th 78:9 136:2	111:25 112:5,6,10
1,000 71:18	150 3:23,24	29 39:13 161:10	112:16 113:1,20
10 62:20 77:19	16 63:8	3	114:4 116:20,22
88:20 89:8 95:24	160 2:20	3 12:18 31:17 37:13	118:3 119:22,24
100:12,20 152:1	167 3:25	37:13 43:7 63:20	120:1,1,3,4,10,14,16
10,000 157:1	17 9:24 13:4,5,12	69:22 77:1 82:9	120:16 125:21
100 21:2 25:21	17:18,20,23 18:6	104:15 122:20	126:5,12,20 127:2
49:14 74:15 80:25	17th 163:14 166:2	137:18 139:10	128:10 130:15
90:14,23 92:22	1800 165:4	143:24 152:21	140:5 148:7,9
111:6 119:8 130:18	18th 166:14,16	154:16	40/42 100:2,21
131:4,14 132:25	19 3:25	3/10 36:22 37:4,5	122:6
133:3 135:21,21	1984 69:23	30 59:3 68:20 77:20	40/45 110:23
139:25 140:7	1986 149:5	101:25 102:15,18	401-1111 2:21
141:15,17,22	1996 15:23	102:20 103:13	42 77:7,23 78:1,9,11
105 1:6 3:9	1998 74:12	108:24 119:25	79:17,25 80:2 90:14
10:05 101:19	2	136:16 147:25	90:18 91:4,6,9
10:30 99:21	2 16:19 17:14 31:17	149:15 156:21	94:10 95:8 100:11
10:45 152:7	84:22 115:25	30xi00233100	101:20,20 102:17
11 35:14 47:8 98:12	120:14 122:20	169:25	102:23 103:21,22
109:12 132:1 162:7	126:16,17 152:21	31 155:23	103:25 104:3,6,6
162:8	20 2:9 23:14,15	3142 35:3	110:6,7 111:2,17,25
110 81:6	84:17 103:4 123:22	32 119:19	112:6,6,10,16 114:5
111 76:25	123:25 131:12	332 40:22	114:5 115:23
11:00 168:5	144:15 148:24	35 149:15	116:20 117:17
11:30 78:3 100:19	155:5,21 156:21	36 106:1 148:6	118:3 119:15,17,19
119:22 120:6	20,000 123:22,25	37 25:23 48:22	119:19 120:8,10,18
11th 166:13	155:22	37/38 100:2	121:17 123:13
12 68:18 85:1 88:20	200 55:12 127:16	38 3:15 30:22 83:8	125:21 126:20,25
92:21 106:1,3	2002 74:9	83:10,16 107:3	127:3 128:10,13,15
122:21 124:20	2012 83:19	39 120:15	130:15 132:7,13,16
135:8 142:8 143:14	2014 2:9	4	132:20 139:13,13
144:1 152:2 153:16	21 54:14,16	4 3:24 12:18 53:23	139:15 148:1,4
154:23	2270 133:17	55:1 59:4 63:20	154:1
		77:1 82:9 107:9	43 77:7 120:19
		114:12 122:19	122:9 128:6

<p>44 120:19 45 54:1 90:21,23 94:8 104:8 111:3,7 127:7 130:15 139:14 140:6 46 102:14,16 112:12 119:19 47 102:14 48 94:22 95:8 102:16 110:4,8 112:12 128:3,7,11 132:6 139:5,6 49 77:23 78:6 79:12 94:11 101:20,21 110:8 115:23 116:4 117:2,17 120:10 121:6,17 126:12 128:11 130:15 132:7,7,9,14 139:7 139:8,9,16,16 49's 126:14</p>	<p style="text-align: center;">6</p> <p>6 53:23 59:4 86:18 87:5 92:7 106:2 147:23 148:4 158:2 158:6 160:25 6'3 152:17 161:19 6'5 106:3 60 32:20 115:21 124:25 130:21 151:24 610 34:1 45:6 128:1 62 1:6 3:7 63 1:6 54:12 55:10 56:22 67:11 68:21 64 112:21 65 129:8 67 67:3</p>	<p style="text-align: center;">9</p> <p>9 6:24 15:4 18:20 19:1 36:7 40:2 47:23 77:2,5 82:12 82:14 85:1 87:23 128:4 153:17 157:18 158:8 159:13 160:4,15 161:3 9.5 157:23 9.5. 157:24 9/10 9:10 23:7 25:5 36:9,15 90 43:6 90th 102:22 911 37:17,21 38:2 38:12,13 973 2:21 99.8 21:3 9:00 73:17 9th 166:9,11,14,20 167:11,16,24</p>	<p>134:24 135:24 152:25 accessible 7:13 accessing 55:18 accident 36:14,21 36:24 37:12 accommodate 51:23 accompanied 71:17 account 75:25 accurate 16:5 131:15 133:23 152:5 169:10 achieve 91:15 acoustic 86:15 acoustical 85:5,10 146:2 acoustics 74:8,13 acquired 75:17 act 15:22 18:15 20:3 20:4,13,15 21:1 action 167:20 169:15,18 activity 138:20 actual 48:18 add 6:23 18:21 20:12 36:6 104:3,12 127:5 139:9 adding 103:24 117:12 121:7,10 addition 33:6 72:22 75:16 76:4 93:17 167:1 additional 17:15 20:7 52:12 56:21,22 72:25 81:5 87:1,18 95:20 107:9 137:21 138:3 145:17 161:13,16 additionally 85:18 address 14:5 23:4 26:6 59:14,16 60:18 85:17 156:13 addressed 10:11 18:17 26:7 67:2</p>
<p style="text-align: center;">5</p>	<p style="text-align: center;">7</p> <p>7 54:18,18 63:8 84:16 87:6 70 80:21 75 3:8 111:6 7:30 2:10 167:17,18</p>	<p style="text-align: center;">a</p>	
<p>5 3:4 55:1 92:7 107:9 122:19 50 19:2,3 42:4 76:17 77:15 90:19 91:11 91:12 94:11 95:3,6 95:7,10,17,21 102:1 104:2 105:18 113:12,14,20 129:1 129:2,8 131:19 132:5 138:14 139:10 151:8,19,21 155:7 50's 126:15 500 56:5 51 129:12,23 52 151:23 53 3:6 55 102:1 121:17 152:3 56 3:6 58 2:8</p>	<p style="text-align: center;">8</p> <p>8 12:21,22 13:3,5,6 13:9 14:9 17:9,14 17:20,22 18:4 19:6 23:6 44:25 47:17 63:8 84:16 87:8,20 95:24 138:6 139:20 143:24 152:21 157:3 158:3,8 159:11 160:25 8,000 155:23 80 129:8 135:10 136:16 83 3:15 84 104:11 85 3:9 13:24 20:1 87 149:5</p>	<p>a.m. 101:19 ability 11:22 41:6 52:12 63:24 76:15 able 25:7 34:12,16 34:18 40:12 42:16 42:18 62:23 77:14 93:1,8,9 97:19,19 99:22 100:2,3,11 101:9 104:22 120:1 127:22 133:12 144:3 153:1 159:17 163:21 165:17 166:22,23 absolute 128:4 accentuated 115:18 acceptable 55:22 96:1 136:14 accepted 74:14 96:14 access 56:5 59:7 67:23 68:4 72:11</p>	

addresses 10:2 addressing 39:22 adequate 10:9 adjacent 56:25 77:10 114:14,22 115:1 147:7 adjoins 72:5 adjourn 168:1,2 adjourned 168:5 adjustment 1:2 40:14,16 adverse 30:18,20 advertise 167:23 aesthetically 160:24 afraid 154:14 afternoon 100:19 122:12 agent 68:18,20 ago 149:6 agree 24:20 25:2 123:9,11,18 agreed 6:12 124:16 agreeing 132:22 agreement 68:5 69:2 ahead 27:15 53:18 aid 22:22,23,24 ailment 63:23 air 38:15 90:22 93:15,20,21,22 94:2 111:5,9,10,11 117:4 120:22 121:15 122:13,16,19 124:6 127:10,14,18 139:25 140:6 156:24 aircraft 115:25 airplane 77:24 79:19 116:4,6 117:2 120:9 121:6 132:8,8 132:10 airplanes 97:18 101:24 102:3 113:15 116:23 120:21 126:13,16	alleviate 43:4 allow 46:15 57:15 65:16 allowable 106:8 allows 56:18 138:8 alternate 6:2,2 alternating 145:22 alternative 12:13 21:17 32:5,8,21 ambient 80:2,20 81:13 91:2 102:7 112:5 117:12 121:14 122:22 123:1,3,15 125:3,23 127:10 135:3,14,19 135:22 137:14 139:4,12,16,17 148:7 154:22 amenable 42:7 amending 159:12 amount 10:1 17:15 29:17 84:18 85:6 88:11,16,18 136:25 amounts 108:12 ample 61:16 amps 145:10 analysis 26:5 81:15 81:16 analyzer 133:10 anchored 84:10 angela 2:3 169:3,23 angle 49:3 animals 123:8 announce 164:10 announcement 167:14 annoy 160:4 answer 4:8 31:6 35:20 37:9,11 38:8 38:9 39:24 47:4 50:9,18 51:3 70:21 77:13,17 94:6 99:1 99:9 106:10 113:22 125:12 131:16,18	answered 24:20 41:5 124:10 answering 37:10 125:13 131:9 antenna 22:3,21 48:3 70:1,24 111:14 antennae 71:14 antennas 6:9,13,17 7:2 8:10 12:7 21:25 30:4,5 35:16 43:3 45:2,3 48:25 49:15 49:18,23 50:3,3,22 50:24 52:6 66:11,13 80:7,13 117:13 anticipates 28:15 anybody 12:3 23:1 24:12 28:11,21 45:14 49:25 70:15 71:1 101:15 168:3 anybody's 55:13 anymore 22:25 64:23 88:21 anyway 138:7 apologies 118:21 apologize 5:6 74:17 83:14,17 85:14 91:8 100:21 101:5 121:2 125:12 131:17 140:3 147:4 apparent 97:13 appear 16:6 109:4 appears 76:25 111:12 apples 79:24,24 applicable 76:5 applicant 2:22 71:22 applicant's 28:11 71:14 applicants 74:20 application 1:8 4:20 26:25 33:5 71:17 75:18 76:20 90:9 131:11 133:2 156:16 159:12	167:25 applications 74:15 95:25 166:19 applied 71:5 appraiser 4:17 166:12 167:3,4 appreciable 149:12 appropriate 60:15 134:20 approval 59:6,23,25 85:3 128:20 132:18 132:21 149:1 150:16 153:3,5 approve 20:5 approved 25:6 26:22 40:9 108:6 113:7 162:22,23 163:1 approximately 53:25 77:2 107:19 137:18,19 139:14 april 4:21 163:14 166:2,9,11,13,14,20 167:11,16,24 apropos 11:8 area 6:25 7:9 8:24 13:23 15:4,18 16:20 17:23 18:5,20 20:22 20:24 21:16 22:3 23:10,18,23 26:3 29:4,13,15 31:2,3 31:12 34:13 35:8,9 37:20 38:1,16 42:3 42:17,18 43:7 44:2 44:7,11 45:22 46:18 46:24 47:1 50:4 52:3 54:15 55:25 56:15,20 62:5,14 63:7 65:14 71:15 74:16 76:23 77:3 95:13 96:6 142:10 142:15 143:19 149:8 165:5 areas 7:19 13:11,24 14:9 17:24 19:17
--	--	---	---

<p>22:1 24:8 26:6 28:24,25 29:1 42:25 61:7 95:18 164:24</p> <p>argue 34:4</p> <p>aroused 71:19,23</p> <p>asked 4:12 19:13 33:7,24 34:2 36:2 43:13 44:1 45:7 54:3 70:20 75:6 111:2 117:11 124:16 126:13 127:5 130:24 132:5 139:21 140:5 152:15 161:15 162:12</p> <p>asking 10:13 11:20 18:19 20:18 24:17 24:21 36:23 37:24 38:11 43:23 47:16 52:10,13 58:19,23 66:21</p> <p>aspects 54:13</p> <p>asphalt 62:21</p> <p>associate 78:2</p> <p>associates 74:7</p> <p>assume 57:10,12 81:10 91:19 107:13 112:2</p> <p>assuming 19:10,11 26:16 38:4 63:5 92:7,23</p> <p>assumption 25:12</p> <p>assure 130:25</p> <p>assured 26:23</p> <p>at&t 1:5 9:3 10:3,4 23:15 24:11,24 26:1 27:23 31:12 32:22 38:16 41:10 43:13 72:2 87:12 129:11 130:3 132:18</p> <p>at&t's 7:3 10:17 24:25 38:3,14</p> <p>atlanta 149:8</p> <p>attempt 145:16</p>	<p>attention 33:17</p> <p>attenuate 136:25 141:9</p> <p>attenuated 99:8 114:16</p> <p>attenuating 108:14</p> <p>attenuation 85:6,17 85:24 88:11,19,21 89:15 91:24 100:8 108:13 115:14</p> <p>attorney 1:19 58:10 59:22 132:18 169:14,16</p> <p>attributes 11:8</p> <p>atypical 136:10,19</p> <p>audibility 124:23</p> <p>audible 78:17 86:8,8 97:17 111:15 123:22 124:1,8 127:21 140:8,12 141:24</p> <p>audience 32:23</p> <p>audio 133:8,10</p> <p>auditorium 92:15</p> <p>auditory 163:5</p> <p>august 81:1</p> <p>automatically 18:25</p> <p>automobile 54:18</p> <p>available 32:1,3 38:16 40:6 46:11,11 72:12 133:6 162:21 163:11 166:7,7</p> <p>avenue 13:13 27:17 30:23 40:22 143:18</p> <p>average 18:25 102:11,13,13,16 112:8,11</p> <p>averages 112:11,12</p> <p>awarded 9:6</p> <p>aware 23:18 143:10</p> <p style="text-align: center;">b</p> <p>b 1:12 3:13 35:14 47:8</p>	<p>babbling 99:10</p> <p>bachelor 74:24</p> <p>bachelor's 53:4</p> <p>back 4:10 5:11 7:21 7:23 8:1 21:8 22:11 27:2 33:22 47:21 50:6,7 57:22 62:17 62:23,25 63:3,3 64:3 68:24 76:3 78:2,12 92:6 99:13 109:14,14 128:18 128:20 129:11,23 130:9,16,24 131:12 132:5 136:23 137:8 142:25 143:4 146:17 148:15 158:19 167:2,2,4</p> <p>background 78:1 94:7 104:14 114:4 141:23 148:12</p> <p>backing 91:25 92:8</p> <p>backup 62:3 80:23</p> <p>backyard 69:5 96:20 97:7,8 99:21 113:18 115:7 123:15 127:9,18 141:6</p> <p>backyards 41:23 114:17 115:19</p> <p>bad 74:25 85:14</p> <p>balance 92:9</p> <p>balancing 18:15</p> <p>band 155:22</p> <p>bands 123:24,25 165:7</p> <p>bang 90:11</p> <p>barely 64:18 78:17 97:16 104:13,24 127:21 138:25</p> <p>barrier 3:22 76:21 76:24 77:6 82:9 84:13,14,22 85:2,4 85:8,8,11 86:10 87:11 88:10,11,20 88:25 89:24 90:8</p>	<p>91:6,7,9,9 92:1,4,10 93:2,10,16,18 95:21 96:17 98:6,15 100:8 105:16,19 106:13 106:23 107:11 108:9,10 109:18 111:13 112:22 115:15 124:20 129:2,5,15 137:7,24 137:25 145:20,21 149:18,25 151:6,8 151:10,13 152:18 153:13,15 157:8,9 157:16,17 159:1,9 161:20 164:2</p> <p>barriers 84:17,18 91:17 149:7,11,14</p> <p>base 71:18 82:23 83:23 146:5 149:16</p> <p>based 4:15 28:6,14 43:6 94:13 98:1 100:4</p> <p>baseline 77:19</p> <p>basically 42:25 44:6 78:14 84:21 88:18 92:6,10 102:7 105:5 114:17 115:4 165:4</p> <p>bats 157:3</p> <p>batteries 70:3</p> <p>battery 145:9</p> <p>bearings 93:6</p> <p>bed 96:17 103:5</p> <p>bedroom 94:16 140:11</p> <p>beginning 63:4</p> <p>behalf 10:14 11:13</p> <p>believe 12:21 35:5 39:17 48:1 70:2 72:15,17,20 83:14 83:20 86:21 87:4,7 93:14 97:24 104:13 104:22 107:7 110:22 111:2 114:8 123:19 124:9,12 134:15 137:10,12</p>
---	--	---	--

<p>138:24 139:6,23 140:9,11 145:24 147:3,5 150:24 152:16 156:15 159:6 165:3 benefit 27:22,25 29:8,20 104:4 146:3 bergen 53:9,12 best 31:12 46:21 90:20 101:9 115:12 124:10 125:12,23 better 13:7 20:15,20 21:6 29:12,14 48:17 83:25 85:7 87:17 88:2 90:11,24 108:14 131:17,18 138:19 146:25 166:12,14 beyond 15:25 138:22 bid 9:2 13:1 51:16 bidder 9:3 bids 9:5 big 23:10 46:5 89:5 121:5 143:2 147:21 bird 90:15 156:7,10 birds 109:7 157:2,4 bit 86:13 142:23 black 34:23,25 35:1 35:3 blend 74:17 blob 18:5 block 1:6 36:10 50:2 50:22,23 51:4 55:12 65:8 88:16 89:16 158:11 blocking 49:8 blows 125:6 149:20 blue 143:2 board 1:2,10,19,20 1:20,21 3:4,6,9 5:17 10:21 13:21 14:5,7 15:3 18:19 20:5,10 20:18 25:25 27:21 27:23 28:3,19 31:17</p>	<p>33:23 40:4,9,14,16 43:13 44:10 53:14 53:21 55:7,22 56:10 57:20,23 59:13,24 62:8 69:17 72:7 87:15,15,17 101:16 105:8 106:14 110:19 113:1 118:20 127:5 128:21 132:22 138:18 150:15 152:9 153:3,19,19 155:16 160:22 161:9,12,15 164:13 165:17 166:4,5,22 board's 60:2 83:5 85:3 boards 16:1 53:9,11 74:20,20 bob 20:8 boots 125:17 borough 143:18 bother 45:14 157:1 bothersome 113:14 bottom 90:4 107:10 108:21 150:25 bought 66:12 111:9 bound 129:2 boundary 142:22 box 145:6 brad 35:13 109:12 132:1 break 73:13,16 breakdown 17:6 breaks 66:16,19 bridgewater 95:12 brief 73:17 bring 4:9 5:11 44:2 62:1,3 100:2 104:2 144:9,13 bringing 71:2 72:4 143:22 broken 16:7 36:8,15 brought 33:17 144:5</p>	<p>bruce 1:21 bruel 133:16 brushes 125:4,19 buck 90:12 buffering 145:18 bugs 102:10 build 21:4 30:11 41:19,25,25 51:11 51:24 71:5 84:19 129:14 building 2:7 builds 51:16 built 21:19,23 99:6 bulb 89:18,20,22 buonantuono 2:3 169:3,23 burden 25:12 business 54:2 65:15 65:19,25 130:21 busy 14:21 butting 35:18 buxton 1:6 4:2 6:10 6:17 7:2 32:21 45:21 54:12 55:10 56:22 61:6 62:19 67:3,11 68:18,21 115:21 126:18 142:9,21 143:12 buyers 68:25 bylaw 106:8</p>	<p>calculations 85:1 90:8 91:19,21 92:20 161:17,17 calendar 136:3 164:7 call 15:19 36:9,11 38:1,13 73:18 112:5 118:2 120:1 125:3 127:1 130:3 165:9 called 44:14 84:5,6 84:8 155:8,8 calling 19:24 calls 23:19 37:17,21 38:12 164:23 165:10,12,15 car 15:18 16:8 17:5 36:20,24 37:8,12 62:25 63:18 64:18 65:2,22,25 68:2 77:24 90:14 116:6,6 117:5 120:9 121:15 care 27:23 careful 138:1 carried 138:21 167:16 carrier 38:2,15,17 38:19 39:6 46:16 51:15 carrier's 38:20 carriers 10:7,8,12 10:15 11:10,23 38:5 38:22 51:16 52:3,6 cars 60:11 64:13 97:18 115:25 116:17,22 120:22 126:17 cartway 56:17 case 16:2 28:11,15 37:22 54:20 56:20 75:21 76:11 81:22 93:10 120:12 137:3 cases 14:18 20:17 catherine 69:22 154:16</p>
		<p>c 1:14 2:3,17 52:19 169:1,1,3,23 cabinets 145:4,5,9 145:10 160:18,21 calculate 77:6 114:25 151:9 152:22 153:6,8,11 161:24 162:1 calculated 75:19 76:18 114:18 calculating 76:4 calculation 106:12 115:11 161:19</p>	

<p>causing 56:2 ccr 169:23 cell 16:14 22:21 37:18,19 49:10 66:11 143:23 144:2 144:18 165:3 cellular 37:17 central 111:5,9,10 111:11 certain 14:11 61:13 certainly 59:1 101:6 111:20 121:20 165:8,22 certified 2:3,5 169:4 certify 169:6,9,13 chair 4:22 24:13 56:23 82:18 162:11 163:9 chairman 1:13 4:1,4 4:23 5:5,13 7:5,8,11 7:20 9:8,16 19:6 21:10,15,24 22:6,18 22:25 25:11 27:15 28:21 31:23 32:1 36:17 39:7,21 40:2 43:9 49:13,25 50:18 51:5 52:22 53:1,13 53:18 56:11 57:3,7 57:10 60:1,19 62:7 64:14,21 65:3,18,21 65:24 66:24 69:9,15 70:4,9,19 72:18 73:6,12,15,18,22,25 74:4,22 75:1 78:19 79:2,5 82:20 88:7 89:4,7 90:3,13 91:1 91:5 104:25 105:7 111:2 124:19 131:19,23 144:11 144:21 153:24 159:22 160:1,8,12 161:3 162:7,17,19 163:6,12,17,23 164:19 168:2</p>	<p>change 66:21 113:21 118:7 138:10,13 146:7 158:23,24 changed 68:21 163:24 changes 98:22 119:12 changing 87:24 106:5 character 124:6 characteristics 136:21 137:13 charlene 30:22 chart 155:19 chatham 1:1,7 2:6,8 11:9 21:19 23:14 27:19 31:13 45:22 48:8 49:7,11 64:22 68:19 74:17 86:21 87:3 95:14 102:4 116:25 117:1 120:2 chatham's 138:18 cheaper 30:8 check 163:25 164:7 164:7 checked 39:15 checking 39:14 children 105:22,25 111:10 146:7 children's 105:12 chips 63:4 choice 129:17 choose 96:14 chose 135:25 christine 25:23 37:16 47:25 134:3 155:17 164:13 church 25:25 26:11 27:9 cingular 1:5 2:22 4:1 circulating 145:7 citing 156:20</p>	<p>city 95:18 civil 11:25 67:17,24 68:15 69:13 73:1,3 87:10 88:5 98:8,10 99:1,9,11,15 107:21 129:4 144:25 146:25 147:11 claim 132:8 clarification 17:1 160:13 clarified 5:18 clarify 32:19 42:14 140:4 162:10 clarifying 160:11 clarity 48:17 classes 44:2,5,10 classify 56:4 clean 155:6 161:2 clear 17:17 48:3 49:2 71:10 153:10 clearance 61:14 clearly 46:23 111:15 127:11 132:10 158:9 click 40:16,17 clicking 97:9 clipped 12:23 close 32:14 41:12 108:1,11,15 142:13 142:20 closer 7:15 101:12 108:13 140:1 closest 77:8 104:13 134:16 135:12 clr 169:23 clutter 44:2,5 code 77:15 86:7 95:3 95:7,10,16,19,22 100:13 cold 141:5 colder 97:22 collocate 11:22 12:4 51:12,17 collocation 51:9 52:12</p>	<p>collocators 51:24 colloquially 154:6 colony 22:15 combination 26:7 combine 9:21 140:14 combined 25:5 combining 23:6 come 21:8 25:15 45:3 53:23 64:11,20 72:3 84:10 100:3,11 119:13 128:18,20 129:11 130:5 158:19 167:2 comes 8:10 84:20 127:11 132:5 coming 10:12 27:3 57:24 58:2 60:11 commencement 169:6 commencing 2:9 comment 17:13 28:3 28:11 70:16 163:21 commentary 28:9 comments 28:18 commercial 42:3 65:15,19,20 66:2,5 81:23 138:20 144:12 commissions 74:19 74:21 commitment 5:7 commons 95:12 communication 3:16 83:19 community 110:16 121:23 124:13 136:10 company 8:14,18 30:3 41:13 44:14,14 45:2 71:4,5 84:5 130:21 149:9 company's 8:5 71:9 comparable 100:22 107:14,17 110:10</p>
--	--	---	--

<p>112:17 113:25 118:6 124:5 127:17 153:13 comparative 87:5 compare 13:2 122:23 125:23,24 compared 13:4,5 17:14 71:22 76:5 123:5 140:6 comparing 79:23 comparison 17:19 competing 29:9 complaints 23:18 complete 4:20 completed 4:9 72:24 completing 28:15 complied 86:7 compliment 134:4 134:10 comply 75:9 151:21 compressors 121:8 compromise 45:11 computer 78:24 concern 26:22 46:23 55:13 59:16,17 60:6 60:10 61:9 63:20 71:20 156:13 concerned 45:12 57:23 60:3,4 63:24 133:1 concerns 8:18 12:9 41:7,8 57:20 59:14 59:15 60:18 111:8 conclusion 28:10 conclusions 123:23 concrete 85:8 107:9 157:18 condensing 90:22 111:4,5 condition 59:6,23 59:25 61:20 63:22 128:19 132:18,21 150:16 conditioner 93:22 122:13,19 127:10</p>	<p>127:14,19 139:25 conditioners 94:2 124:7 156:24 conditioning 90:22 120:22 121:15 122:16 140:7 conditions 138:22 149:1 condos 95:13 conduct 71:9 confirm 136:2 137:12 conflict 163:18 confused 121:5 consider 18:7 28:19 43:20 55:7 114:21 considerable 10:1 consideration 163:22 considered 14:20 29:2 32:5,13 79:9 114:13 156:17 considering 42:17 consistent 70:14 79:12,13 80:4 100:17 103:25 123:23 constant 79:3 108:18 113:16 119:6 constantly 113:14 113:16 121:10 constitutes 14:9 15:20 construct 21:18 42:6 constructed 99:7 159:11 construction 64:6 consulting 74:7 contacted 58:5 context 104:19 contiguous 71:3 continue 21:4</p>	<p>continued 5:3 167:16 continuing 131:2 continuous 79:8,18 79:22,25 112:15 118:12 125:9,22,24 126:9 155:12 continuously 78:10 contribute 121:21 contributed 126:14 contributing 121:19 121:23 control 96:14 convenient 65:6 166:4 conversation 58:20 convert 166:8 cook 27:16,16 28:8 28:20 cool 80:7,13 81:8 158:17 cooling 78:23 80:16 119:1,2,3,4,6 copies 5:23 copy 54:10 cord 144:10 corner 60:9 64:24 84:1 146:24 147:7 correct 7:10,16 9:18 9:19,22 18:20 19:4 19:5 21:21 23:8,20 27:10 31:7 32:18,25 33:21 49:9 50:15 69:12 70:20 75:11 75:11,12 83:1 105:21 109:18 117:14 124:22 131:4 138:2,16 156:24 158:21 159:4 162:16,17,19 correctly 109:16 154:21 cost 41:7 42:9 counsel 2:22 28:15 167:19,21 169:14</p>	<p>169:17 counterintuitive 43:6 counties 53:10 counting 102:21 country 27:17 96:8 county 53:12 96:13 couple 34:25 83:14 83:15 164:6 course 51:14 court 2:4 14:17 130:23 163:8 169:4 courtesy 73:5 cover 6:21 7:19 17:22 21:9,16,25 42:16,18 45:9 46:20 46:24 47:1 coverage 6:11,14,16 7:3 9:12 10:2,6,9 11:9 13:6,8 15:23 16:17,21,22,23 17:6 17:10,15,18 18:25 19:21 20:6,14,19 21:5 24:3 25:21 26:14 29:7,9,12,15 29:15,17,24 31:1 35:22 36:14 37:6,13 37:20,21,25 38:5,7 38:14,15,22 43:7 52:3 165:3,5,6 covered 6:11 17:2 28:24 45:10,17,24 46:13 47:3 140:25 covering 46:24 crass 130:25 crazy 80:9,10 144:20 create 89:23 110:4 132:13 137:7 138:21 created 113:8 creates 132:14 creating 112:2 cricket 94:17</p>
--	---	---	---

<p>criteria 12:14 13:23 23:25 24:9,24 47:19 60:25 61:4</p> <p>crumbling 149:16</p> <p>crunching 125:16 141:13</p> <p>cs1818334 1:25</p> <p>cul 14:19 15:24 55:11 60:9,15 64:16 64:19,24</p> <p>cumulative 117:11 117:18 121:7</p> <p>curb 61:15,15</p> <p>curious 58:16 98:16 140:25 150:2</p> <p>current 26:14 43:1 81:6 157:25</p> <p>currently 74:6 87:20 93:4 103:21 112:1 137:4 160:9 166:2</p> <p>curve 54:5 55:4</p> <p>cut 50:5</p> <p>cycling 97:2</p>	<p>day 56:6 76:11 78:8 79:10 91:3 95:8 107:8 117:17 122:19 132:11 154:23,25 155:7,8,8 163:23</p> <p>days 19:1,2 98:24 143:14,24 144:1 164:6</p> <p>daytime 76:14 80:1 101:18 103:22 113:17 136:12</p> <p>db 4:14,16 100:12</p> <p>dba 76:17 77:7,15 77:23 78:1,6,9,11 79:18,25 80:2 90:18 90:21,23 94:23 95:10,17,21 96:5 101:20 102:1,14,17 103:15,21 104:7,8 104:15 105:18 110:6,8,23 111:3,3 111:7,17,25 112:2,6 113:1,12,14,20,20 119:25 120:5,8,17 120:18,19 122:6 123:13,16,21 124:2 124:4 125:22 126:6 126:12,12 128:3,11 128:13,15 129:2,12 130:14 131:19 132:20 137:18 138:14 140:6 147:23 148:5,6,7,9</p> <p>dba's 110:4,20 112:21 132:13</p> <p>dbm 106:7</p> <p>de 14:19 15:24 55:11 60:9,15 64:16 64:19,24</p> <p>dead 61:6</p> <p>deal 121:6</p> <p>dealing 72:9 142:21</p> <p>deals 99:3</p>	<p>death 108:21 144:19</p> <p>decent 133:19 136:16 145:22</p> <p>decibel 89:9 115:9 148:4 155:7</p> <p>decibels 76:18 89:8 90:14 95:24 100:23 117:12 139:14 152:2 154:1 156:20</p> <p>decide 15:14 43:19</p> <p>decided 15:25</p> <p>decision 10:21 58:24 113:6</p> <p>decisions 159:25</p> <p>decrease 92:10</p> <p>deep 41:14 63:8 84:25</p> <p>deer 108:22 109:4</p> <p>defer 90:5</p> <p>deficit 43:1</p> <p>definite 29:20</p> <p>definitely 9:8 97:23 142:20 143:5 150:6 151:20</p> <p>definition 19:24,25 24:25</p> <p>degrees 80:21,25 81:6 119:8 136:16</p> <p>dei 25:25 26:10</p> <p>demonstrate 121:1 121:3</p> <p>demonstrating 128:21</p> <p>dense 32:14</p> <p>department 76:6</p> <p>dependent 76:10</p> <p>depending 84:24 86:19</p> <p>depends 38:13</p> <p>depot 144:14</p> <p>depth 5:15</p> <p>describe 43:18</p> <p>described 82:9</p> <p>describing 67:5 97:21</p>	<p>description 3:14,21</p> <p>design 13:23 14:2 47:19 51:23 84:3,9 84:13</p> <p>designated 63:1</p> <p>designed 130:14</p> <p>designing 129:1</p> <p>designs 90:10</p> <p>desire 71:14</p> <p>determines 126:5</p> <p>detrimental 123:14 123:20 124:13,17</p> <p>diesel 144:15</p> <p>difference 12:25 13:19 16:8,9 17:5 17:22 18:7 117:9 118:17 119:17 122:11 125:5,9 151:12</p> <p>different 5:14 6:3 10:16 18:10 30:16 75:15 87:13,16 90:6 122:10,14,25 123:4 124:6 136:12 137:13 147:16,18 154:12 155:19 156:12</p> <p>differently 123:8</p> <p>differing 108:12</p> <p>differs 17:25</p> <p>difficult 11:18 82:2 90:16</p> <p>difficulty 48:9 104:18</p> <p>dimension 62:20 108:9 109:23 147:24</p> <p>dimensions 56:16 106:22 107:1,12,16 107:22,25</p> <p>direct 28:15 70:22</p> <p>disabled 15:18 16:7</p> <p>disadvantage 72:19</p> <p>discretion 56:9</p>
d			
<p>d 3:1 39:13 68:18 122:3 128:1,1</p> <p>d.e.p. 75:10 76:7 96:12,15 99:6 132:19</p> <p>daily 104:1</p> <p>damaging 156:18</p> <p>danger 71:24</p> <p>dark 89:18</p> <p>data 31:16 44:19 75:15,17 80:15,16 80:17 153:21</p> <p>date 10:1 44:21,23 83:9,16,17 163:10 163:13 164:5 169:12</p> <p>david 39:12 106:21 161:10</p>			

<p>discuss 87:10 88:1 129:4</p> <p>discussed 5:9,13,18 41:16 64:15 72:20 76:21</p> <p>discussing 105:13</p> <p>discussion 30:24 72:6,8,10</p> <p>discussions 58:11</p> <p>distance 126:17 147:20,21 148:2,16 153:15</p> <p>distances 92:20 141:2,3,7,10</p> <p>distant 116:1</p> <p>distribution 71:11</p> <p>distributive 22:2</p> <p>district 138:20</p> <p>doctor 14:6</p> <p>documents 3:20 25:20 165:23</p> <p>doing 4:15 51:15 58:8 61:18 72:12 80:18 91:21 123:6 134:20 161:12</p> <p>dokey 153:23</p> <p>dominant 102:2</p> <p>dominating 108:9</p> <p>donald 122:2</p> <p>door 154:17</p> <p>doors 122:13</p> <p>dot 34:23,25 35:4 143:3</p> <p>dots 10:17 35:1</p> <p>double 104:10 147:20,21 148:2 164:7</p> <p>doug 40:21</p> <p>doughy 40:22</p> <p>downhill 114:15,23 115:8,18</p> <p>dr 1:21 6:12 12:11 12:18,22 13:3,16,20 14:11,25 15:6 16:6 16:18,23 17:13</p>	<p>18:10 20:12 51:8,20</p> <p>draw 17:20 93:25 94:1</p> <p>drawing 98:4,12,17 144:25</p> <p>drawings 98:5,20 164:2</p> <p>dreyfus 39:12,12,25 40:3 106:21,21 107:4,18,24 108:4 108:16 109:6 161:10,10,21 162:4</p> <p>drive 25:24 39:16 45:8 69:4,22 154:17</p> <p>driven 42:8 77:24 149:11</p> <p>driveway 56:25 57:4 57:7 58:17 59:2,18 67:6,11,19,20,21,25 68:3,11,13,24 69:3 69:4</p> <p>driveways 63:19</p> <p>driving 24:11 126:17 144:20</p> <p>drop 147:23 148:4</p> <p>dropped 23:19</p> <p>drown 139:17</p> <p>ducting 91:14</p> <p>due 10:23 11:2 63:21</p> <p>duly 169:7</p> <p>dumb 103:25</p> <p>dust 98:14</p>	<p>earlier 9:16 126:4 164:6 167:7</p> <p>early 70:2</p> <p>earth 72:1 143:1</p> <p>ease 135:24</p> <p>easement 55:17 56:13 57:1,6,8 58:13 59:7,10 62:13 62:14,20,22 63:2,5 63:6 67:5,9,10,15 67:20 68:1,4,12,22 69:11 72:12 135:13</p> <p>easier 60:8</p> <p>easily 19:3</p> <p>east 77:10 109:25</p> <p>easy 16:3 82:6 117:21</p> <p>eatontown 149:5</p> <p>edge 54:20 84:23</p> <p>effect 9:18 12:10 28:1 75:25 91:14,16 107:24 108:6 136:22 141:1,12 148:13 157:3</p> <p>effecting 109:5</p> <p>effective 61:1</p> <p>effectively 37:4</p> <p>effects 141:19 156:11</p> <p>efficient 30:10 32:11</p> <p>eight 88:23,24</p> <p>eisenstein 1:21 6:12 12:12,18,22 13:3,16 13:20 14:11,25 15:6 16:6,18,23 17:13 18:10 20:12 51:9,20</p> <p>either 71:17 79:8 108:25</p> <p>electric 111:14 112:20 145:7</p> <p>electrical 22:19 78:25 119:4</p> <p>electricity 8:17 45:13 143:11,13,16 143:18 144:2,18</p>	<p>electromagnetic 66:23</p> <p>electronic 165:22</p> <p>elevation 92:8 114:20</p> <p>eliminating 148:14</p> <p>emad 43:11</p> <p>emergency 4:13 15:19 36:8,15 54:2 54:25 55:14 57:24 58:1 59:18 63:24 81:14,20,22 143:22 144:4</p> <p>emphasis 41:6,13</p> <p>employee 169:14,16</p> <p>enclose 77:5 93:15 93:17</p> <p>enclosed 82:15 93:13 154:5</p> <p>enclosure 84:2 89:5 93:18 107:7 109:22 109:25 130:7 160:18,20</p> <p>ended 100:1 130:1</p> <p>ends 129:10</p> <p>enforced 95:10 96:12</p> <p>enforcement 155:4</p> <p>engine 60:11</p> <p>engineer 1:20 4:8,15 11:25 52:10,13 53:7 53:17 64:10 67:17 67:24 68:15 69:14 73:1 74:10 86:15 87:10 88:5 94:5 98:8 99:1,9,11,15 107:21 129:4 134:4 134:5,11 144:25 148:2 157:16 167:1 167:1,2</p> <p>engineer's 73:3</p> <p>engineering 52:19 53:4,6 74:25 98:10</p> <p>engineers 74:8 134:9</p>
	e		
	<p>e 1:12,12,18,18 2:17 2:17 3:1,13 5:4 28:23 35:14,14,14 39:13 40:22 47:8,8 47:8 48:12 53:19 73:24 75:3 169:1,1</p> <p>eagles 109:7</p> <p>ear 104:16 122:4 123:7,20 124:3</p>		

<p>enhance 31:2 enjoy 76:16 enormous 17:15 enter 83:6 entire 61:15 71:23 108:22 160:14 161:4 entirely 122:25 entitled 2:2 entity 65:20 66:2,5 87:2 environment 104:17 154:5 environmental 74:13 76:6 131:6 envision 88:11 episcopalians 166:6 equal 39:9 87:12 equate 141:4 equipment 10:25 67:13 71:12 75:6,16 75:19 76:1,2,12,22 77:3,8 78:10,16,22 78:23,25 79:1 80:19 81:3 89:13,25 90:4 92:5,9,21,22 93:16 93:18 95:17 97:20 99:20 100:25 101:2 101:10 105:6 107:14,15 108:5 109:3,24 111:14 112:20 114:20 115:2,15 118:7 119:1,3,4,6,11 120:17,21 122:8,17 124:9,23 127:22 128:14 133:13 134:17 135:8 137:6 137:15 139:18 140:11 141:11,14 141:22 142:4 145:2 145:7 146:5,16 147:24 148:3,10,23 149:25 151:1,7 153:3 156:24 160:7</p>	<p>160:18,20,21 161:25 erected 84:19 especially 113:3 149:16 esq 1:19 esquire 2:19 essentially 14:7 16:15 75:22 139:17 essex 53:9 estate 27:18 68:18 68:19 esthetically 88:1 estimate 46:21 110:2 115:12 132:3 estimates 132:7 evaluated 101:6 evaluation 14:23 20:10 79:10 123:20 142:24 evening 2:10 4:3,4 4:19 40:9 163:1 event 36:7 81:20 eventuality 81:24 eventually 7:1 70:17 88:13 evergreens 145:17 everybody 40:11 104:5 155:9 everybody's 10:25 everyday 65:9,12 everyone's 10:15 evidence 156:1 exact 20:14 92:20 143:20 exactly 10:3 11:1 12:13 89:23 126:9 144:22 154:22 example 44:9 51:18 51:19 89:17 90:14 90:20 110:20,23 122:17 155:5 exceeds 81:12 excellent 156:7</p>	<p>exception 43:8 exchanged 58:7 excuse 65:23 75:25 84:6 118:9 160:12 executed 9:7 exempt 81:23 exercise 154:13 exhibit 3:14 83:6,7 83:10,16 107:3 exist 46:4 79:18 92:15 126:22 137:2 existed 47:12 78:8 125:21 existing 12:6,25 16:17 17:21 30:9,16 30:18 32:8 35:16 41:7,14,21 43:3,20 47:11,18 54:4 75:22 77:21 79:11,24 85:15,20 86:4,11 87:5 88:2 93:7 100:14 101:3 104:1 104:3 110:6,7 112:4 116:13 118:2 120:5 120:8 121:11,15 125:25 126:11 128:10,12 142:15 158:4 exists 78:17,18 80:4 89:3 102:24 126:1 expect 15:12 51:14 56:7 75:19 78:13,16 93:2 100:22 110:11 120:24 129:21 141:12,22 148:4,5 149:22 expected 110:21 expecting 132:16 expensive 133:19 experience 17:8 113:10 114:15 116:17 120:24 123:14 129:25 149:19 150:20 155:3</p>	<p>experienced 147:11 experiencing 116:15 expert 1:21 4:11,14 20:21 25:15 28:12 50:13 52:15 54:6 57:25 73:11 74:14 75:7 125:1 129:19 131:2 132:24 133:2 156:5 expertise 62:6 81:9 explain 4:15 42:22 44:4 99:14 101:22 127:9 explained 57:22 79:22 exploring 41:10 expound 125:14 expressed 60:7 expression 84:1 extension 3:25 144:10 167:19 extensive 144:15 extent 154:6 exterior 77:1 159:6 159:13 external 140:6 extra 83:14 extras 83:15 extreme 65:10 extremely 144:13 eye 118:3,6 120:4,8 eyes 89:22 158:6</p> <p style="text-align: center;">f</p> <p>f 1:12 39:13 43:12 67:3,3 169:1 face 147:4 155:14 facilities 33:10,15 41:11 facility 3:16 7:1 11:22 31:11 33:11 33:11 35:5 43:1 83:19 98:13 fact 14:8,12,12 16:2 17:8 38:2 76:1</p>
--	--	---	--

<p>145:19 factor 126:21 factoring 126:1 factors 125:19 facts 59:23 factual 165:1 factually 165:24 fair 38:10 91:23 116:14 147:8 163:22 fairly 17:17 51:21 124:8 fairmount 7:15 13:13 17:23 28:25 34:7 35:1 40:22 fairweather 2:19 3:6,8 4:3,5,24 5:10 5:22 6:5 8:3 9:2,15 9:20 10:23 11:15,24 12:6 15:5 18:18,23 19:13 21:7,13,20 22:2,8,13,16 24:7 24:13,19,23 25:14 27:1,5,13 31:6,19 32:7,16 33:18,22 34:20 35:19 36:3,25 37:10 38:8 41:16,24 42:2 43:16 46:1,15 47:4 48:19 49:12,19 50:8,12 51:6 52:14 52:20 53:16,20 56:23 57:5,14,19 58:6,9,18 59:3,9,22 60:17 64:9 67:14 68:2,8,14 69:13 73:10,14,19 75:4 82:18,21 87:9,23 98:7,20 99:5,14 114:2 118:19 130:9 130:13 131:8 132:17 134:8 138:5 138:12 144:6 146:15 147:17 151:4,14 156:3 157:9,23 158:2,22</p>	<p>159:3 160:19 161:7 161:15,23 162:6,10 162:18 163:9 164:3 166:11 167:3,5,17 167:21 falls 13:9 familiar 61:25 150:9 family 63:22 166:13 166:16 fan 80:16 81:1 105:1 119:1 fans 25:8,13 78:23 78:24 79:5 80:6 81:5,7 90:3 94:3 96:23 97:2,8 98:2 99:22 103:20 118:13 119:5,9 far 7:18 8:24 12:8,9 44:7 45:12 59:10 107:25 108:7,11 123:13 127:15 133:1 134:6 141:3,6 141:23 142:16 fahrenheit 80:21 136:17 farm 96:8 farther 42:1 faster 80:13 141:8 father 106:3 favorable 153:2 fax 167:22 fcc 15:21 16:12 february 77:18 78:9 136:2 140:24 feel 54:24 85:14 150:2 feet 42:4 49:14 51:22 54:14,16,19 55:12,24 56:12,21 61:5 62:20 63:8,8,8 77:2 82:12 86:16,18 86:21,22 87:5,6,8 87:12,20,22,23 88:8 88:18 89:7,14,25 90:1,2,14,19,23</p>	<p>91:20 92:21,22 105:23 106:3,24 107:8,11 111:6,11 111:13 112:21 124:20 127:16 135:8,10,21,21 138:7,8 139:25 140:7 141:11,15,17 141:22 147:25 148:3 152:16 153:16,17 157:18 158:1,2,6,8,8 159:11,13,22 160:16 fellow 134:4 felt 95:21 fence 62:4 75:22 78:12,15 85:16,21 86:6,16 87:1,2,5,14 87:15 88:2 93:5,7 97:16 104:23,23 106:4 109:16 114:19 127:20,21 128:5 135:9 138:6,9 142:22 153:17 157:25 158:3,4,5,7 158:9,10,16,20,23 158:24 159:1,2,7,10 159:13,15,16,17,19 160:4,6,13,23 161:4 fences 86:21 159:15 fewer 146:21 field 14:3 74:12 84:19 fields 66:23 figure 36:1 106:25 117:6,16 files 71:6 filing 59:10 fill 14:20 42:19,20 43:22 47:22 filled 7:1 13:12 14:22 financially 169:17</p>	<p>find 21:18 24:11 40:7,19 43:21 48:17 75:13 92:12,14 133:15 155:13 finding 14:8 16:2 42:20 findings 133:6 fine 25:19 58:3 60:17 112:11 132:4 146:13 150:17 151:2 161:7 finish 118:18 131:8 finished 5:11 98:21 finishing 166:25 fire 60:11 98:12 firehouse 51:18 firm 55:24 first 5:5 19:18 22:4 22:22,23,24 30:25 73:22 75:14 77:17 90:19 142:9 146:9 147:1 149:4 five 73:13,16 86:16 86:16,18 91:20 fix 128:25 129:12,16 129:23 130:6 131:22,24 fixed 121:18 flat 15:18 flatbed 62:2 flew 77:25 flies 79:19 flipped 84:7 floor 92:17 120:2 139:22 148:9,10,12 florida 15:11,13 flow 93:15 fly 15:11 102:1,3 flying 109:8 116:18 125:7 126:5 follow 11:16 18:19 34:15 following 41:1 138:21</p>
--	--	--	---

<p>follows 5:3</p> <p>foot 54:21,21 55:25 56:19 77:5 84:16,17 87:24 89:4 92:7 106:2 128:4 138:12 147:24 153:17 160:4,25 161:1,4</p> <p>forced 93:21</p> <p>forces 84:13</p> <p>foregoing 169:9</p> <p>forget 13:24 17:21</p> <p>forgetting 62:16</p> <p>form 109:5</p> <p>former 89:11</p> <p>forsk 44:15</p> <p>forth 88:24 125:20 126:15 169:12</p> <p>forties 112:24 132:3</p> <p>forward 15:21,22</p> <p>found 40:18 54:8</p> <p>four 12:19 13:16 17:24 23:5,6 36:4 76:22 77:3 82:16 135:15,23</p> <p>fourth 25:3 81:1</p> <p>frankly 13:21 17:20 42:9</p> <p>freezing 144:19</p> <p>frequencies 10:24 123:21 155:19,23 156:12,20,22,23</p> <p>frequency 1:21 4:7 4:8 50:13 157:2 165:7</p> <p>fresh 51:24</p> <p>friday 163:20</p> <p>friendly 71:21</p> <p>friends 41:2</p> <p>front 48:23 54:12,15 56:22 68:22 89:12 146:1,6,16</p> <p>fruitless 150:19</p> <p>fuel 98:11</p> <p>full 106:22,25</p>	<p>fumes 98:14</p> <p>further 11:22 55:24 56:12 76:3 77:12 78:12 92:2,6,19 97:23 101:7,11 106:4 109:21 112:22 124:22 127:21 141:21 142:25 143:4 147:9 162:8 167:15 169:9 169:13</p> <p style="text-align: center;">g</p> <p>g 35:14 47:8 67:3 68:18 122:3 128:1</p> <p>gallon 71:18,19</p> <p>gap 6:3,6 10:11 14:3 14:10,12,14,15,15 14:18,21 15:20 16:3 16:4 17:3,5,17,22 19:24,24,25 20:6 24:3,5,18,22,25 36:6 37:4,15 38:16 40:2 43:2,4 45:15 47:13 164:24</p> <p>gaps 6:23,24 7:7 9:12 11:16 17:3 23:5,6,10 24:12 36:4,21 40:1 43:8 43:22 47:11,18,18 47:22</p> <p>general 40:15 52:4 61:22 70:15 77:25</p> <p>generally 51:13,15 51:20,22 79:7 97:22 104:15 134:25 135:20 145:23 147:19</p> <p>generate 98:13,16 122:18</p> <p>generated 75:7 122:8</p> <p>generates 113:5</p> <p>generating 114:1</p>	<p>generation 71:12</p> <p>generator 61:24 62:1,3,5,17 64:2,3,7 67:12 72:9 81:15,18 81:19,22 82:3,5 108:1,2,3,3 143:22 144:5,7,14,21</p> <p>generators 67:23 71:2 72:5 144:12</p> <p>gentlemen 73:15</p> <p>geographical 44:19</p> <p>geography 11:9</p> <p>george 28:23 34:2 44:25 50:1 139:20</p> <p>gesture 71:21</p> <p>getting 26:2 50:22 63:24 64:8 72:7 88:14 100:1 104:6 108:23 121:5 152:4</p> <p>giant 25:13</p> <p>give 4:7 19:21 20:19 20:21 37:11 46:1 53:1 54:6,16,21 55:25 58:19 70:20 74:4 75:7 80:15 81:10 90:13,21 110:23 112:13</p> <p>given 41:8 57:6 167:12</p> <p>gives 19:22</p> <p>giving 54:3</p> <p>glen 1:14</p> <p>gloria 25:25 26:10</p> <p>gnawing 122:3</p> <p>go 4:16 9:9 15:13 21:25 27:15 31:21 32:17 37:17 38:2,14 40:15 50:3 53:18,25 59:10 60:5,7 63:3 63:10 66:13 67:17 69:20 80:19,22 84:25 88:20,23 93:8 98:25 99:22 106:7 110:9 113:22 115:2 115:3 117:12</p> <p>118:13,15 130:9,24 143:23 147:23 148:22 150:12 154:19 157:19 161:24 163:10,19 166:15</p> <p>goal 16:12,15 91:15 100:5 154:12</p> <p>god 52:24 74:2</p> <p>goes 21:11 28:4 39:9 60:3 63:2 69:6 79:20 111:6 118:14 119:19 120:9,9,10 120:11 121:16 164:4</p> <p>going 4:6,16,24 9:9 10:7,10,12 13:7 14:19 25:8,15 26:17 27:2,8 31:2 35:6 37:11 41:21 45:14 46:20 47:3,10 49:12 49:22 52:10 60:22 60:23 61:18,19 62:2 62:3,4 64:10 65:9 72:1,10,25 77:2,16 80:17,22 81:1,7 82:15,18 83:18 86:22,23 87:10 88:13,17,19,21 89:8 89:12 90:5,20 92:11 92:15 94:4 95:17 96:23 97:12,14,19 97:20,22,24 98:8,9 99:7,8,12 101:9 103:16 104:18 106:6 109:17 111:14,15 112:13 112:25 113:8,12,14 113:15,16,21,22,25 114:5 115:14 117:9 117:18,24 118:7 119:9 120:22 121:16,17 122:18 122:21 124:5,13 126:17 127:5,17,19</p>
--	--	---

<p>128:3,17 129:3 130:14,21 131:22 132:9,10,13 134:25 135:5,6,15,22 136:11 138:6,9,19 141:14,24 144:13 144:19 147:14 148:6,11,25 150:19 150:25 152:6 154:6 154:10,14,15 155:12,13,25 157:11 158:9,10 159:1,10 160:14,15 160:17 161:12,21 161:23,24 162:1,18 163:20,25 164:1,10 164:11,14 166:13 167:11 good 4:3,4,23 11:24 31:25 32:4 35:24 53:18 64:2 80:14 85:6,11 91:18 92:14 94:5 95:9 125:11 136:6 153:20 162:20 goodfriend 74:7 google 133:25 143:1 gosh 97:11 government 44:20 granted 55:18 granting 153:2 grass 56:13 107:10 157:20 gravity 84:13 great 5:10 30:20 106:15 159:17 greater 29:16 77:7 78:11 80:2 120:19 greatly 135:7 green 13:23 14:1,3 18:24 greenville 51:18 greeve 34:1,1,14 45:6,6,23 46:5,10 46:22 47:2,6 124:25</p>	<p>124:25 126:4,8,24 127:4,8,24 139:3,3 139:8,19 grew 68:19 143:10 grid 8:24 groff 67:3,3,9,12,25 68:6,12 ground 49:14 78:12 84:10 91:15 92:24 100:18 105:23 106:18 127:23 158:7 group 69:24 70:24 102:20 grow 50:2,7,14,15 51:1 growing 109:4 guarantee 142:4 guess 16:25 17:1,4 27:20 28:25 32:13 37:14 83:18 101:23 114:11 121:4 159:4 guesstimate 112:23 guy 25:16,16 99:13 157:23 guy's 133:3 guys 35:15 36:5 158:17</p>	<p>160:15 161:4 halpern 2:19 hand 52:17,20 73:21 83:6 84:1 118:1,2 handed 98:21 handout 5:20 hands 117:20,22 hang 164:9 hanover 3:17 82:22 83:20 140:18 happen 8:8 50:4,17 64:15 85:4 100:15 100:24 116:11 143:15,19 happened 51:19 82:4 happening 17:7 70:17 72:1 happens 13:6 20:16 30:14 50:2 60:13 66:16,18 68:7 91:25 92:16 132:12 happy 48:12 100:14 106:11 111:1 153:18 hard 5:23 117:22,24 harder 80:13 harley 121:16 harm 45:16 hat 20:11 hawk's 156:9 hawks 109:7 haylee 32:20 68:6 115:21 head 86:23 102:1 headphones 104:17 health 96:13 hear 22:11 27:11 38:25 51:3 77:14 80:12 94:17,22,23 95:3 96:18 97:3,19 97:25,25 99:22 103:6 104:18,20,22 110:20 113:7,19,24 114:16 115:18</p>	<p>119:20 122:12 123:4,16 127:11,22 132:4,10 139:22,24 139:25 142:2,4 144:3 146:8 150:25 153:21 154:10,13 154:15 hear's 150:7,21 heard 15:4 26:21 69:25 71:1 72:13 82:9 99:9 137:12 154:19 167:11 hearing 22:4 71:1 72:4,14,16 98:23 124:1 162:13,14,16 168:5 169:7 hearings 15:14 40:19 51:10 69:24 69:25 70:14 71:13 167:13 hears 123:7 heart 63:22,23 heat 81:7 height 87:16,19 88:1 88:4,4,10 91:19 93:9 108:10 137:24 157:8,11,15,17 158:3 heights 87:13,17 held 2:6 14:18 help 21:25 40:11 52:24 74:2 106:1 148:1 160:2,3 helpful 15:2 153:22 hereditary 63:23 hereinbefore 169:12 hertz 123:22,22,25 123:25 155:22,23 155:23 156:25 157:1,3 hey 40:23 hi 130:3 high 7:12,17 8:16 34:5 39:17 44:17 49:5 51:22 77:6</p>
	h		
	<p>h 1:19 3:13 52:19 habit 134:25 half 36:10 54:18 77:1,2,5 79:15,16 82:14 84:24 86:16 86:22 87:11,24 88:8 88:18,22,24 90:2 91:20 94:22 102:1,3 102:15 105:20 106:24 107:11 115:22 116:8,12 125:18 128:4 136:9 138:12 149:6 153:16,17 154:24 155:23 159:13</p>		

82:13 84:16,17 86:22 92:7 94:12,25 95:5,6,6 102:25 103:1 113:13 119:5 132:7 138:7 139:4 153:17 159:18 higher 29:23 34:5 39:18 49:6 77:23 79:20 86:10 89:1,3 90:1 91:10 92:11,25 93:3,7,11 94:10 102:9,16 106:7 109:17 112:25 113:11 118:15 119:15,17 120:7 121:14 126:3,14,16 126:18 127:6,12 128:24 129:15 130:1 138:11 139:14 152:2,3,18 156:23 highest 48:8 49:11 49:13,14 79:16 90:9 102:5,20 110:7 120:18 126:12 128:4 highland 143:18 highlands 27:20 highway 14:21 29:2 29:5 85:9 91:16 135:18 149:10,13 highways 29:3 hike 37:2 hill 21:11 34:4,10 46:22 115:4 116:1 hit 80:25 holding 149:6 holy 163:16,23 home 28:1 48:7,23 58:14 90:22 144:14 homeowner 99:20 homeowners 150:1 honest 96:4 98:19 103:3,15 105:3 107:6,20 110:12	117:3 133:25 135:14 143:25 hoover 84:6,7 hope 72:23 hopefully 4:18 20:7 hopes 18:12 hoping 18:15 hot 80:11 hottest 80:22 hour 56:6 79:15,16 94:22 102:2,4 104:5 115:22 116:8,12 125:18 154:23 hours 54:2 76:14,14 79:10 122:19 132:11 143:24,24 154:24 house 56:25 66:12 68:24 69:1,7 92:17 97:1 104:21 108:18 109:13 111:6,9 115:4 132:11 140:1 140:9 141:16 142:5 houses 36:13 41:9 55:1 63:21 68:21 78:12 92:18,22 93:3 95:13 96:20 97:4,23 114:14 142:12,16 142:25 143:2 144:8 houton 27:17 30:23 140:21 hudson 53:9 hum 78:24 79:2 105:2 119:3 122:12 145:8 156:25 human 122:4 124:1 138:23 hundreds 130:23 huron 25:24 35:14 39:13 47:8 48:22 69:22 109:13 132:2 154:17 161:10 husband 25:24 106:2	hypothetical 37:12 65:9 hypothetically 130:2 132:13 hypotheticals 100:15 i idea 94:18 ideal 36:14 identifies 44:7 identify 48:14 117:4 illegal 131:20 illustrated 6:19 imagine 89:17 123:8 133:18 135:16 144:17 immediately 8:8 impact 30:18,21 108:17 117:18 impacted 15:3 85:18 impacts 81:16 141:1 important 14:20 30:25 42:10 88:5 impose 54:25 132:14 inaccurate 99:16,18 inadequate 6:11 155:1 inaudible 140:8 inch 21:19 157:19 inches 54:16 77:1 82:9 84:24 85:1 107:9 include 81:15 included 26:13 including 80:2 inconvenient 65:7 incorporate 98:6,22 increase 89:8 95:23 104:7,9,14,16,23 120:25 137:18,21 137:23,25 148:14 148:15,16	increased 87:8 increases 137:24 increasing 17:9 87:25 88:12 incremental 137:18 incrementally 117:7 117:8 indefinitely 88:12 independent 80:18 indicates 14:3 indicating 59:8 industrial 74:13 industry 125:24 information 3:20 7:25 58:22 69:2 151:24 152:1 153:19 162:2 inhibit 76:15 insects 102:8 inside 62:4 140:10 154:11 insignificant 13:8 insinuating 35:17 inspection 61:22 64:4 install 131:23 installation 110:14 128:20 130:24 installed 108:5 149:8 153:3 institute 53:4 insulation 144:15 insult 134:8 intended 106:4 interest 70:24 interested 169:17 interesting 71:16 130:12 interfere 12:7 interference 12:9 interject 82:19 intermittent 79:6,13 101:24 115:24 116:11 125:20 126:2
---	---	---	---

<p>intermittently 122:22 interpret 20:18 interrupt 36:17 70:5 89:21 intimately 30:13 126:2 introduce 118:5 intrusion 55:14 invited 135:2 ipad 48:22 ish 152:3 islands 13:15 issue 8:19 10:3 12:1 12:1,1 14:5 15:21 17:7,19 18:13 23:16 30:24 42:10 46:12 61:9 64:1,10 155:3 issues 18:15,17 23:19 28:7 italian 117:20 iterations 88:10</p>	<p>judith 2:19</p> <hr/> <p style="text-align: center;">k</p> <hr/> <p>kali 1:21 164:6 167:23 kate 1:13 katie 47:7 105:11 keep 19:24 35:15 36:5 59:12 81:7,12 88:12,13 95:9 103:8 122:16 keeping 55:22 129:8 149:13 keeps 122:3 kenny 1:13 5:19 7:21,25 8:13,20,25 12:11,20,24 13:14 13:18 16:4,16,19,25 18:9 26:20 27:4,8 27:11 34:15,25 35:9 40:13 45:25 51:8 52:8 57:17 58:4,7 58:13,21 59:5 85:12 95:2,7 96:9 99:19 99:25 100:10 146:4 146:14,18 147:13 148:21 149:23 150:11,14,18 151:2 151:7,11,19,23 152:4,10,20,23 153:20 168:1 kick 81:1 kilohertz 155:19 kim 140:21 kincaid 3:24 44:25 114:12 115:7 139:20 150:4,10,11 150:16 kind 6:6 44:8 50:14 87:15 93:24 94:12 116:19 122:17 155:12 161:1 kindly 71:22 kinds 109:7 122:10 122:14</p>	<p>kjaer 133:16 knew 66:12 know 8:2,3 9:5 10:18,20 15:3,17 22:16,22 23:13 24:9 24:12,17 25:1 31:14 36:3,11 39:15 45:5 45:15 46:19 47:2,6 50:8,13 51:14 52:2 52:9 58:9,14,21,24 59:5,9 61:8,11 64:17 66:10,22 68:5 68:6,25 69:8 71:12 72:7 74:16 80:9 83:17 85:8 86:14 91:16 94:20 97:14 98:18,18 100:24 101:13 105:4 106:13 107:7,13,18 113:21 115:16 117:7 118:9 121:8 125:14 127:13,16 127:19 129:20 130:4 138:19 140:24 143:10,15 143:20,24 144:22 145:24 146:22 147:18 150:1,5 151:11 152:10,13 154:8 156:8 164:25 knowing 71:25 111:9 known 44:18 knows 82:4 kreuzer 140:21,21 141:15,25 142:6 kw 144:15</p>	<p>ladies 73:15 lady 127:4 laid 100:9 lake 53:12 land 21:17 51:24 76:10 114:14,22 landscaping 145:16 lane 3:24 29:2 56:1 114:12 115:8 150:4 150:11 lanes 61:5 language 31:10 large 83:11,13 145:20 larger 142:23 largest 23:9 37:3,15 late 104:5 law 14:17 129:16 132:23 138:15 159:18 laying 96:17 layman 31:9 layout 101:1,3,10 107:14 layouts 101:4 learned 123:2 lease 9:7 19:19 46:16 leased 7:14 leave 9:10 88:4 108:23 147:14 leaves 21:1 125:4 136:22 137:4,6 leaving 20:5 left 4:6,20 9:16 84:1 120:8 150:5 leg 16:7 36:8,15 legal 17:11 25:20 68:3,12 132:4,6,9 132:14 164:10 legality 17:14 lego 84:21 length 72:20 107:6 107:16</p>
<p style="text-align: center;">j</p>	<p>jacobs 52:19 james 69:21 jcp&l 12:17 29:24 34:3,3 43:7 45:8,12 47:10 jeopardy 61:20 jersey 1:7 2:6,9 14:18 52:5 53:8 74:11 75:9 76:6 85:9 94:15,15 95:11 95:19 96:5,8 109:3 149:5,14 169:5,24 jfairweather 2:21 job 1:25 123:1 john 1:16,20 3:5 52:16,18 53:16,21 69:20 73:10 joseph 3:3 4:25 5:2 23:3 28:22 47:9 judgment 13:20 16:1</p>	<p style="text-align: center;">l</p> <hr/> <p>l 1:18 28:23 40:22 43:12 52:19 73:24 73:24 84:5,5,5 lack 23:23,24 24:4,6 83:25</p>	

<p>level 49:14 76:5 77:20 78:1,7,12,18 87:13 91:15 92:25 94:7 95:23 97:18 100:3 101:18,21 102:2,5,14,19,24 104:2 105:14 112:10,12,16 113:8 114:4,19 115:3,9 116:19 118:2,3,6,6 119:10,21,23 120:4 120:5,7,8,13,18,18 120:20 121:17,22 124:3 125:19,25 126:1,3 127:23 128:4,12 129:5 130:22 133:9,10,17 133:25 135:3 139:16,18 140:23 141:23 146:7 147:15,22 148:1 151:10 153:8,9,11 153:12,14 154:22 165:6</p> <p>levels 4:14,16 75:19 76:19 77:6,22,23 78:5,10,13 79:16,17 79:20,24 80:1,3 86:2,4,6,10,11 88:14 89:1 92:3,11 93:3,11 94:10 98:1 100:14,21,22 101:20 102:13,18 110:7,8 112:4,17 116:13,16 118:17 119:18 124:2,21 126:11,14,19,21,23 128:10,12 135:6,11 141:13 147:10 148:5,25 155:4,7,18</p> <p>lewis 74:7</p> <p>liability 130:22</p> <p>license 169:25</p> <p>licensed 53:7 74:10</p>	<p>lid 105:21</p> <p>life 148:22 149:15 156:7,11</p> <p>lifetime 136:15</p> <p>light 89:18,20,20,22 165:7</p> <p>lightly 63:25</p> <p>likelihood 45:1</p> <p>likes 145:25</p> <p>limit 56:6 113:13 129:7 132:5 162:18</p> <p>limited 71:9</p> <p>limits 76:5 86:2,20 89:2 100:13 113:21 129:6 138:22</p> <p>line 3:21 40:6,10 48:4 49:1 75:22 76:3 78:4,15 86:17 89:16,21 91:21 92:19 101:7,12 109:15,21,23 110:6 110:17 111:12 113:4 114:19,25 115:1,3,6 124:22 134:16 135:12 141:11,16 147:3,25 148:3,17,19</p> <p>lines 39:16 50:5 75:20 77:9,10 135:8 135:9</p> <p>lining 85:9</p> <p>links 165:18</p> <p>list 44:10,12,22</p> <p>listen 25:17 31:23 110:10 127:9 133:7</p> <p>listing 69:1</p> <p>literally 41:22</p> <p>little 13:14 18:5 23:6 65:1 76:2 90:1 120:15 126:15 142:23 144:14</p> <p>live 15:8 25:10 27:16 30:22 48:8 164:18</p>	<p>lived 23:14 69:22,23</p> <p>livenote 2:5</p> <p>lives 141:25</p> <p>llc 1:5 2:23</p> <p>llp 2:19</p> <p>load 84:25</p> <p>local 115:25 126:18</p> <p>localized 21:24 22:6</p> <p>locate 8:6</p> <p>located 6:21 30:13 41:17 76:22 111:15 146:23 156:10</p> <p>location 19:9 32:5 54:10,11 55:2,22 56:2 61:19 62:23 63:5 72:11 75:25 115:15 149:21</p> <p>locations 5:14 6:4 10:17 32:8,21,22 33:7,8,16 104:13</p> <p>logical 55:5,16</p> <p>logistically 101:13</p> <p>lollipop 83:25</p> <p>long 21:11 48:10 66:8 91:3 144:9</p> <p>longer 106:25 154:18</p> <p>look 12:20 13:3,5,12 13:15 16:19 17:14 18:2,3 19:13 32:3 33:9,12,15,16 34:23 43:2 49:15 52:5 54:4 93:9 96:10 106:7 112:12 140:19 143:1 144:25 157:12 161:2,8</p> <p>looked 19:15 26:4 29:19,24 32:23,24 32:24 33:1,4 55:6 112:15 114:24 123:21 136:3</p> <p>looking 42:16,25 47:15 52:1 66:2,7 98:4 106:3,13,23</p>	<p>110:20 146:10 152:18 153:4,14,16 160:2,4,6,7</p> <p>looks 13:11 17:25 49:21 85:7 106:24 157:10</p> <p>lose 16:23</p> <p>losing 16:21</p> <p>lost 63:21 143:11 147:4</p> <p>lot 1:6 12:14 24:10 25:8 60:8 112:24 113:11,19 125:1 133:18 135:18 141:3,4 149:17,21 154:18,19 163:19</p> <p>lotfy 43:11,12,18,25 44:4,12,16,21,24 114:12,12,21 115:1 115:16</p> <p>loud 77:14 95:21 106:6 116:6 129:21 130:4,5</p> <p>louder 100:16 106:8 106:17 125:17 135:20 152:14</p> <p>loudest 80:11 92:13</p> <p>low 6:15 61:7 102:6 102:7,13 103:4 114:4 122:12 132:3 156:21 157:2</p> <p>lower 31:3 77:11 78:13 79:21 84:1 86:6 88:23 90:11 100:11 102:16 103:16 115:4,12,13 119:11 124:24 132:18 147:11 150:8,22 156:25 158:7</p> <p>lowest 78:1,7,18 79:15,17 90:10 94:9 97:18 100:6,21 102:17,21,21,22 103:21 112:9,15</p>
---	--	---	---

116:16,18 119:21 119:23 120:5 125:18,21,25 126:12,21,22 128:11 lucent 33:11 lutheran 26:11 lying 103:5	14:9 16:19 17:9,14 17:14,18,20,20,22 17:22 18:4,6 19:6 23:6 34:19,20 45:25 47:17,17 54:10 maps 10:16 26:5,14 29:6,8 31:16 33:19 33:23 34:22 43:6	meaning 7:6 means 23:25 24:4 43:2 158:15 meant 27:1,4,5 81:5 measure 31:1 93:8 120:1 133:13 153:8 measured 23:11 34:4 54:12 75:17 79:12 94:9,10 96:6 100:17 101:19 102:19 107:8 112:10,16,20 117:16 118:4 119:22 125:19,22 132:7 154:22 155:7 measurement 3:22 3:23,24 77:20 105:14 112:19 128:21 135:12 measurements 78:4 78:8 80:18,20,23 96:5 100:1 102:18 103:13 108:24 110:14 124:19 130:25 131:12 133:9 134:14,20,23 135:2 136:7,12 140:23 149:24 150:16 151:5 152:25 measuring 115:22 mechanical 74:25 81:10 122:24 123:3 123:12 137:15 160:7 mechanism 165:14 mediocre 20:15,20 20:23 21:6 meditating 116:19 meet 9:21 23:25 24:9,23 33:12 43:1 95:22 128:22 meeting 1:10 5:7,21 6:20 9:16 12:12 28:16,16 29:7 30:2	33:9 40:5 57:21 58:4 77:15 89:2 162:3,23 163:13 164:8 166:3,5,9 167:12,24 meetings 31:17 32:10 40:12,25 163:1 megahertz 165:4 member 74:19 118:20 members 166:6,22 memory 152:1,6,7 mentioned 30:2 32:20,23 36:5,7 39:14 94:8 113:15 merck 33:10 mercy 8:5,11,13 mess 141:7 154:6 161:1 messing 23:5,9,13 23:24 24:2,6,15,21 25:4,19 32:19,20 33:3,6,14,25 62:12 62:24 63:10,14,17 64:13,17 65:1,13,20 65:23 66:1,10,17,22 115:21,21 116:3,7 116:22,25 117:2,6 117:15 121:4,19,22 122:1 163:4 met 12:14 metal 85:7 meteorological 141:19 meteorologically 141:12 meter 120:20 133:9 133:17,25 154:1 meyersville 2:8 michaels 1:20 160:12 microphone 22:12 middle 14:2 61:1 90:7 92:12 96:8
m	march 2:9 mark 48:23 83:8 marked 83:10 mask 139:17 massive 86:5 master's 53:5 match 87:15 88:3 160:23 material 62:21 82:12 math 86:23 104:6 matt 73:20 75:5 82:22 83:3 130:3,9 163:10 166:15 matter 1:4 2:2 12:2 119:24 166:18 167:15 matthew 3:8 73:19 73:23 mattle 40:21,21 42:4 mature 50:11 maundy 166:5 maxed 88:18 100:7 maxes 88:15 maximize 96:2 maximum 80:16,16 88:10 mañana 70:16 mean 13:22 14:15 15:7,24 18:24 21:3 21:17 24:2 25:12 36:8 42:23 46:6,8 51:13 58:14 59:1 102:14 113:13 114:8 126:8 135:16 145:21 164:19 165:23		

<p>104:17 110:15 120:6 136:13 143:3 mile 7:18 9:10 15:5 18:20,23 19:3 23:7 23:12 25:6 34:11 36:9,15,22 37:3,4,5 40:2 45:21 46:18,25 56:6 141:21 142:1 mileage 46:6 miles 6:24 15:4 36:7 47:23 million 71:19 mind 73:4 95:10 103:8 149:13 152:4 mine 72:5 78:2 minimal 36:16 minimize 158:21 minus 20:1 148:1 minute 13:24 54:1 73:13,16 101:25 163:12 164:9 minutes 40:5,10,17 40:18,19 59:3 73:16 77:20 102:15,18,20 103:13 108:24 162:22,23 misquoting 14:17 missed 30:24 31:18 mistaken 14:16 mix 123:2 mixing 140:2 mobile 10:19 26:2 35:5 45:13,20 46:9 model 145:2,4,5 models 89:13 90:23 90:24 money 58:7 monitor 128:18 monitoring 155:12 monopole 7:11 22:18 51:17,21,25 month 4:19 98:23 month's 5:6 months 51:7 97:22 106:1,1 122:20,21</p>	<p>montvale 53:12 morning 77:19 100:20 120:14 morphous 20:6 morris 2:20 morristown 2:20 motion 168:1,2 mountain 37:3 mounting 89:14 move 43:10 64:18 68:7 73:7 101:7,11 109:24 125:16,18 147:9 148:15 152:12 moved 30:23 66:11 76:2 146:5,23 147:2 moving 21:12 109:21 146:16 muffler 144:16 multiple 42:17 municipal 2:7 6:2 12:16 75:10 76:8 130:23 138:18 municipalities 95:11 municipality 96:13 murello 3:8 73:20 73:23 74:3,6,24 75:2 murl 144:23</p>	<p>nearest 37:17 75:20 140:9 need 7:1,6 8:20,22 14:7 17:6 35:19 52:4 67:21 81:4 89:23 93:15 141:20 153:7 158:13 165:8 needed 75:8 needs 49:21 67:17 89:24 negative 13:24 neighbor 60:4 neighbor's 122:18 127:10,14,18 neighborhood 21:13 27:20 30:15 41:10 41:18,20 71:20,23 82:23 96:2 162:20 neighborhoods 30:13 32:17 neighboring 120:22 neighbors 26:23 41:12 72:1 neither 169:13,16 nelson 1:14 66:4,8 66:15,18 nest 156:10 network 10:15 38:3 38:14,20 43:1 never 23:16 49:9 66:12 81:4 104:20 113:18 118:7,15 119:14,25 143:11 148:6 new 1:5,7 2:6,8,22 5:20 7:11,17 9:17 12:15 14:18 16:24 19:7,8 21:18,18 29:12 30:11 35:18 41:10,11 43:3 47:10 52:5 53:8 74:11 75:9 76:6 85:9 94:15,15 95:11,19 96:5,8 109:3 118:5 139:13 149:5,14</p>	<p>158:20 164:9 169:5 169:24 newark 95:15,17,18 newer 90:23 nice 45:11 55:24 153:24 161:8 night 25:3,7 76:16 77:15 78:3 96:17,25 99:21 100:19 101:21 103:7 119:23 120:2,6 122:7 141:5 152:7 166:10,25 nightmare 81:11 nighttime 76:14,16 79:25 86:3 103:23 113:17 136:13 151:22 nine 86:22 87:11,21 88:8,17,22,24 90:2 105:20 106:23 107:8,11 nj 2:20 noise 25:8,15,16 74:12,13 75:7,15 76:7,13,17,21 77:6 78:20,22 79:8,11,13 79:13,18 81:16,23 82:3 85:11,24 86:3 92:2,9,10 96:14 98:14,16 99:3,4,17 101:4,18,24 102:2,8 103:25 104:1,2,3 105:2,6 108:2,6,9 108:10,11,11,13,15 108:17 109:1,24 110:21 111:25 112:5,17 113:5,7,20 114:4,4 115:23 118:5,7,12,17 121:7 121:10,22,23 125:3 125:4,9,20,24 126:2 127:10 133:2 135:1 135:19 137:1,2,20 137:23 138:24</p>
	<p>n</p>		
	<p>n 1:18 2:17 3:1 5:4,4 43:6 53:19,19 75:3 75:3 128:1,1 n9 13:1,5 name 3:2 23:4 40:21 43:11,11 52:16 69:21 73:20,22,23 nancy 27:16 natural 122:22,23 123:17 137:14 nature 77:25 81:25 near 39:16 60:9 156:17 157:1</p>		

<p>139:4,24 141:9,14 141:20,21 145:2 147:22 149:10,14 151:22 154:2,7 155:4 160:3 noises 122:25 123:2 123:3,3,12,16 noisy 25:13 normal 78:16 91:2 92:7 north 9:13 17:23 28:25 35:3,11 47:22 55:2,10 75:21 77:9 96:7 134:23 135:7 146:23 northeast 13:10 35:11 74:15 northern 76:3 northwest 6:22 13:9 26:3 43:8 96:7 134:16 146:24 147:7 notary 2:5 169:3,24 note 98:12,12,17,19 99:15,16,18 notes 2:1 notice 96:23 164:10 notices 167:15 noticing 18:3 number 79:21,22 95:25 102:9 122:5 133:20 139:13 numbers 35:3 89:12 95:4 96:7 102:15 103:14 116:10 126:20 numerically 103:16 124:4 numerous 53:9 89:13</p>	<p>o'clock 77:19 100:19,20 120:14 162:7 oath 5:1 objectives 33:10,12 obligation 21:4 obstructed 54:22 obviously 12:4 17:2 23:22 33:11 49:4 60:23 occur 149:22 octave 123:23 155:22 october 30:23 odds 36:14 odors 98:14 offer 53:16 offered 149:24 office 31:20 75:17 84:15 86:9 96:13 145:25 officers 96:14 official 40:10 oh 9:2 11:5 97:11 okay 4:22 5:13 7:20 31:18,22 34:14 39:4 44:24 47:6 49:25 51:5 52:14 58:5,16 58:22 64:13 74:22 90:16 99:25 101:14 103:3 105:24 111:23 112:18 115:20 120:6 127:24 133:5,21 139:19 146:11 151:14 152:4,23 159:3,17 162:4 165:13,17 166:1 okey 153:23 ola 114:12 old 106:1,1 older 22:21 90:24 once 50:1 53:22 59:3 89:21 116:11 148:9</p>	<p>ones 7:14,16 22:6 open 21:2,17 23:2 25:7 65:15 82:17 91:13 93:13 94:17 96:18 103:6 105:8 113:18 140:10 opening 65:18 operate 76:12 132:20 operating 61:13 77:8 78:10,16 81:3 140:7 opinion 13:25 20:21 36:16 37:11 48:24 54:6,24 58:19 75:7 97:16 106:17 125:1 125:8 135:5,15 153:12 opinions 167:10 opportunity 39:10 70:10,12 167:9 opposed 146:6 option 30:10 55:15 options 55:6,21 56:9 56:24 order 8:9 43:3 75:9 75:24 89:15 98:23 141:18 158:11 ordinance 75:10 89:2 96:10,11 128:22 129:1 132:19 138:8,18 ordinances 35:21 ordinary 165:3 orientation 127:14 original 15:22 originally 159:10 outage 8:11 81:21 82:1 outdoor 154:11 outside 25:10 37:5 62:5 80:20 104:17 111:6 115:22 119:8 123:15 159:9 160:23</p>	<p>overall 76:4 124:3 overbearing 161:6 overhead 77:25 79:19 113:15 132:9 overheat 93:19 119:7 overlays 29:20 overlooks 105:12 overreach 13:25 overview 4:7 6:6 owned 60:15 owner 57:6,14,22 58:2 59:8,21 113:3 152:24 owners 146:21 owns 71:4</p>
			p
			<p>p 1:18 2:17,17 52:19 84:5 p.e. 1:20 3:5,8 p.m. 168:5 p.m.. 73:17 p.p. 1:20 packages 144:12 packet 9:23 98:5 packets 5:20 pad 107:9 157:18,19 page 3:2,14,21 40:14,14 paint 155:5,6 panel 70:24 84:3,9 panels 48:3 84:10 84:24 paper 12:22 papers 71:5 parents 106:2 park 46:12 53:24 55:9,11,23 58:1,17 59:1,18,24 60:8 63:9 64:16 65:4,5,7 67:19,20 68:2 86:13 parked 54:11,20,23 55:3,6 56:24 57:15 57:21 65:2</p>

<p>parking 4:12 55:17 59:11 60:6,14 65:22 65:25 68:11</p> <p>part 10:4 48:11 98:10 165:21</p> <p>particular 11:8,21 34:13 35:8 47:14 69:24 101:10 107:7 149:18</p> <p>parties 169:15</p> <p>pass 54:22 56:1</p> <p>passaic 34:7 53:9</p> <p>passed 9:6 63:19 70:7 149:5</p> <p>passing 115:25</p> <p>path 11:2</p> <p>patient 49:23</p> <p>patio 127:16</p> <p>patricia 67:4</p> <p>pattern 73:7</p> <p>patterns 65:10,12 69:10,17 136:11</p> <p>pave 56:21</p> <p>paved 62:14,21</p> <p>pavement 56:19</p> <p>pavlovich 3:5 52:18 52:18,25 53:3,15</p> <p>pay 27:24 65:16</p> <p>pcs 1:5 2:23</p> <p>people 10:9 15:7,13 23:18 24:10 32:22 33:17 39:8 41:8 42:7 45:7 51:11 61:13,21,22 62:22 71:21 113:6 114:16 115:18 119:18 121:8 131:23 141:3 143:17 154:8 162:15 163:19,19 164:8 165:9,15</p> <p>people's 41:22 63:19 76:15 135:1</p> <p>perceive 104:16</p> <p>perceived 104:15 148:14,16</p>	<p>perceives 124:3</p> <p>percent 19:2,3 21:2 21:3 25:21 130:18 131:4,15 133:1</p> <p>percentage 46:2,19 105:1</p> <p>perceptible 86:8 104:14,24 119:18 138:23,25</p> <p>perception 154:12</p> <p>perceptual 118:17</p> <p>perfect 152:8</p> <p>performance 88:25 92:4</p> <p>performed 77:19</p> <p>perimeter 159:13 161:5</p> <p>period 54:1 77:22 101:25 154:23 155:4</p> <p>periods 79:15 154:25</p> <p>permanent 26:2,17 26:24 27:2,3,6,14 81:18 82:5</p> <p>permission 8:21,22 19:12 57:6 83:5 134:24</p> <p>permitted 19:16</p> <p>person 36:23 39:11 55:17 69:11 70:20 88:6</p> <p>person's 139:22</p> <p>personal 167:10</p> <p>personally 5:15 23:21 24:10 155:7</p> <p>persons 165:11</p> <p>peterson 25:23,23 26:10,13,16 37:16 37:16,25 38:13 40:4 40:11,18 42:13,22 43:5 47:25,25 48:6 48:12,17,22 49:6,10 49:17 134:3,3,10,13 134:19 136:1,20</p>	<p>137:4,11,17,20,25 138:3,10,14,17 139:2 155:17,17,25 156:6,19 157:5 164:12,13,17,23 165:13,17 166:1</p> <p>pets 108:18</p> <p>phone 15:12 16:14 36:9,10 37:18,19 39:5 130:3 165:9,10 165:15</p> <p>phones 38:18 39:3 49:10</p> <p>photo 49:20,22</p> <p>photograph 3:15 48:15,18 83:10,17 83:22 84:2 107:3,22 108:20 110:3 145:15</p> <p>phrase 10:3 20:6</p> <p>pick 54:18</p> <p>picture 48:6 49:3 83:4 112:14 140:17 142:9</p> <p>pictures 49:5</p> <p>piece 111:5 145:3</p> <p>pieces 75:16 79:1 80:19 92:5 93:16 145:1</p> <p>pike 26:25</p> <p>pinilis 2:19</p> <p>pinilishalpern.com 2:21</p> <p>place 48:2 55:5 64:23 169:12</p> <p>placed 6:9 71:8</p> <p>placing 7:2 48:25 165:15</p> <p>plan 48:2 109:17 113:4</p> <p>plane 15:12 117:5 125:7 126:5,9</p> <p>planes 116:18</p> <p>planner 1:20 4:20 18:16 20:8 35:20,24</p>	<p>49:22 167:5,6</p> <p>planner's 35:25</p> <p>planning 18:13 53:11</p> <p>plans 59:11 75:5 99:15</p> <p>platform 105:23 106:12 150:3 152:16 153:14 161:18</p> <p>play 17:11 111:10 147:5 153:25 154:4 154:9 161:18</p> <p>playground 93:4 111:11 147:5,10</p> <p>playing 154:11</p> <p>please 22:11 23:4 25:17 38:8,10,24 39:10 49:23 52:16 52:17,21 53:2 54:4 54:7 73:9 74:5 125:13 131:8 163:10</p> <p>plotting 5:14</p> <p>plow 61:12</p> <p>plowed 60:25</p> <p>plowing 61:12</p> <p>plows 61:14</p> <p>plus 12:25 13:1 121:17 139:9,10 149:9</p> <p>plywall 84:5,8</p> <p>plywood 76:25</p> <p>pockets 41:14</p> <p>point 14:1 15:6 28:11 48:8 49:6,11 49:15 60:14 64:3 70:5,10 72:11 88:15 90:9 95:9 99:12,17 103:11,21 106:9 116:8 118:16 121:13 123:8 132:2 134:22 136:6 143:7 143:21,21 144:1 148:8 155:2 159:14</p>
---	---	---	--

<p>166:24 points 49:13 117:18 poles 21:25 policy 136:7 polise 1:14 19:23 60:22 61:23 94:7,12 94:16,19,24 95:15 96:16,22 97:2,5,7 97:13 98:1,4,11 99:3,12,16 101:17 101:22 102:6,11,25 103:2,5 105:1 118:9 118:13,16,22,25 119:8,12,16 144:24 145:9,12,14 151:17 164:1 pollution 121:10,23 pompous 131:1 134:5 pool 22:15 poorly 121:1 popping 86:23 porter 69:21,21 70:7 70:13,22 72:13,17 72:23 73:2 154:16 154:16 155:1 portion 17:16 pose 37:1 position 14:7 74:8 possibility 22:1 possible 10:20 38:20 39:2 60:6 70:2 166:3 possibly 65:8 96:3 100:6,24 129:14 155:9,16 post 84:3,9 110:14 128:20 130:24 posts 84:9,11,24 potential 29:7,9 potentially 28:1 29:11 power 7:17 8:5,5,7 8:12,16,24 33:2 39:15,16 50:5 72:6</p>	<p>81:21,25 93:25 111:14 145:7,10 powering 70:1,23 72:2 predict 78:9 80:1 82:2,6,7 112:6 128:12 predicted 89:1 112:17 115:13 124:2,21 135:6,11 139:12 predicting 93:11 predictions 155:18 predominantly 21:21 prefabricated 84:11 preface 11:17 prefer 35:18 59:24 136:12 preferable 113:3 165:23 preferred 124:15 preparing 28:17 presence 109:4 present 26:1 28:8,13 95:24 165:24 166:19 presentation 31:5 164:21 presented 31:16 presently 78:17 80:4 89:3 presents 18:16 president 74:6 pressure 76:19 77:20 pretty 8:4 17:25 44:20 50:11 89:5 101:8 103:18 133:19 135:5,22 145:22 prevention 160:3 previous 30:24 31:24,24 40:18,24 42:14 48:1 51:10</p>	<p>previously 5:2 72:9 primarily 108:9 primary 38:19 print 48:10,13,15 prior 5:7 71:14 98:24 169:6 privy 40:24 probably 23:15 27:21 28:17 55:15 63:6 65:15 84:15 89:10 92:22 110:17 116:3 126:15 129:23 133:19 135:14 144:14,15 problem 11:11 21:12 54:25 55:8 56:2,8 70:13 121:11 121:12 129:24 procedure 143:21 procedures 167:12 proceedings 1:6 2:2 process 66:2 produce 119:25 120:7 156:25 produced 135:18 137:15 produces 120:17 145:8 producing 112:20 139:15 145:8 product 84:4,5,7 149:4 professional 2:4 53:7 74:10 106:17 135:5 169:5 projected 28:14 prolonged 81:25 promulgated 96:12 proof 25:12 propagate 46:7 propagation 6:1 33:19,23 43:13,19 43:24 115:17 propane 71:18</p>	<p>properties 27:18 93:5 114:22 property 29:22 54:15 56:13 57:6,14 57:22 58:2 59:8 60:16 67:15 68:23 71:3,4,9,15 72:5 75:20 76:3,16,17,23 77:9,10 78:4 91:21 92:19 93:6,8 96:25 97:1 101:7,12 106:5 109:15,21,23 110:1 110:6,17 111:12,16 113:3,4 114:15,19 114:25 115:1,3,5 116:13 120:20 124:22 134:14,16 134:24 135:1,7,9,12 135:13 138:22 141:11 146:21 147:3,7,25 148:3,17 148:19 152:24 153:7 156:8 160:15 proposal 47:14 propose 85:25 113:5 113:9 proposed 12:13 13:2 13:10 14:8 19:9 32:12 53:24 54:10 54:17 75:6,16 81:18 82:6 98:13 109:17 114:20 138:6 proposing 85:3 87:12 100:4 107:15 107:16 142:24 158:21 160:20 prosed 82:25 prosing 157:22 protection 76:7 provide 10:6,8 20:14 29:4,23 43:13 48:16 59:7 61:14,16 80:16 85:6 106:11 106:14 119:5 128:21 145:17</p>
--	--	---	--

<p>151:25 152:9,25 153:18 167:19 provided 11:9 44:3 44:10,13 75:5 85:18 providence 9:17 12:15 29:13 provides 31:12 55:7 81:2 providing 61:21 74:12 100:12 proximity 41:9,12 124:8 pse&g 7:17,21,23 12:16,18 13:1 19:14 27:4 psychological 145:23 public 2:5 3:4,7,9 18:14 23:3 28:3 61:22 62:9,11 65:4 65:13 69:16 70:15 105:8,10 163:21 167:8,9,15 169:4,24 publish 166:20 pull 63:19 143:1 pulled 56:11 pulls 15:17 purchase 133:12,18 133:22 158:20 purchased 40:10 69:1 purdue 53:6 purple 13:24,25 18:5 purpose 86:1 98:24 129:5 purposes 71:11 87:5 146:10 165:19 pursuant 99:6 pursue 47:13 pursuing 47:20 pushed 64:25 put 8:9 15:21,22 28:18 31:9 32:5,14 41:14 42:25 43:2</p>	<p>45:1,3,10,18 46:13 48:2 51:21 61:19,24 64:23 71:14 84:23 86:5 89:18,19 93:22 108:15 130:6,6 145:16 146:2,3,20 160:2,4 162:24 putting 16:24 35:15 45:16 51:21 104:5 165:15 167:9</p> <p style="text-align: center;">q</p> <p>qualifications 53:2 74:5 qualified 74:23 qualifies 24:18 qualitative 31:1 quality 24:8 90:17 122:5 quantified 76:9 122:24 quantify 97:6 116:20 122:4,15 quarter 141:20 142:1 quarters 85:16 question 5:19 9:25 10:4,5 11:17,21,25 12:11 14:4,24 15:1 19:23 24:15,16 25:24 26:20 28:2,24 34:2,16 35:24 36:1 36:6,18 37:2 38:9 39:8 41:4 42:13 43:12 45:1,17,23 46:10 47:9 49:20 50:20 51:8,9 52:9 52:13 53:21 61:23 69:20 70:19,22,23 77:13,17 80:14 91:18 93:24 94:5 95:2 96:22 99:19 101:17 103:19 109:6 113:23 114:11 123:9</p>	<p>125:11,13 126:13 131:17 137:9 139:21 140:5 146:4 146:25 147:2 152:15 155:11,16 156:6,8,19 157:7,15 158:25 161:11 162:4 163:15 164:12 166:17 questions 4:8 5:11 5:16 6:8 18:19 22:25 23:2,4 24:14 25:17 27:21 28:6,22 35:23 36:2 42:12 48:19 60:21 62:8,9 62:10 66:25 67:1,2 67:14 69:9,16,16 70:6,8,10 73:4,6 99:2 101:16 105:7,9 144:23 148:21 161:11 162:9,11,14 162:15 quick 4:7 43:12 163:15 quickly 6:6 50:13,14 93:19 quiet 96:3,6 99:21 101:8 103:18 113:18 122:7 144:13,16 quieter 88:14,14 92:3 96:7 100:16,23 101:1 120:15 129:1 136:4 quietest 101:20 102:24 120:13 quite 42:9 56:16 quote 20:14</p> <p style="text-align: center;">r</p> <p>r 1:12,18 2:17 28:23 35:14,14 39:13 47:8 47:8 67:3 68:18 73:24 122:3 128:1,1 169:1</p>	<p>radio 1:21 4:7,8 11:2 35:22 50:12 rain 136:15 raise 38:23 52:17,20 73:20 158:10,16 159:2 raised 106:4 159:13 159:16 ran 88:9 89:13 range 79:14,16 90:25 111:4 117:16 124:1 152:3 155:20 156:25 157:3 ranged 77:22 78:5 126:11 128:10 raw 51:24 ray 34:1 45:6 124:25 139:3 reach 38:19 45:22 46:18,20 reaches 81:6 reaction 90:19 read 5:7 25:19 31:24 37:17 138:19 163:4 reading 138:17 ready 52:14 108:23 real 27:18 47:17 68:18,19 85:12,13 89:15 117:24 realistic 116:14 reality 88:15,20 100:17 148:11 realize 60:19 realized 103:17 really 14:14 17:20 36:12,13 69:10 80:11 85:24 91:23 94:20 101:5 103:9 104:18 109:6 110:16 116:14 122:9 136:18 137:2 142:18 144:9 145:21 146:2,24 148:8 154:10,15 165:14</p>
--	--	---	--

reason 95:20 134:23 receive 32:15 165:18 receiver 89:16 137:2 147:22 receiving 18:13 76:10 138:7 recess 73:17 recollection 38:21 recommend 86:9 recommendations 71:8 recommended 76:20 84:14 95:20 129:3 149:4 record 28:5,18 39:9 48:11 70:25 72:21 107:5 117:20,23,25 123:1 130:23 131:4 138:2 146:11 152:7 153:10 156:14 159:5 161:13 162:21 165:10,16 165:22,24 167:10 recorded 123:16 154:4 recording 123:1 153:25 recordings 133:6,9 133:10 154:4 records 27:14 redescribe 82:8 reduce 86:2 88:25 92:3 reduced 18:6 reduction 92:9 refer 112:16 reference 146:12 referred 67:19 112:4 138:15 referring 35:4 39:19 107:2 reflect 137:8 reflection 136:22,24	reflects 5:25 regard 49:20 53:17 regarded 71:20 regarding 6:8 53:22 67:15 regardless 37:18 regards 42:15 registered 2:4 169:5 regs 75:10 regular 1:10 54:18 regularly 166:3 regulation 76:7,13 76:17 81:23 86:3 151:22 regulations 14:13 relationship 30:1,3 30:7 relative 52:10 115:9 169:14,16 relatively 136:15 relaxing 127:18 relief 87:19,20,21,25 155:10 remember 4:5 12:12 26:21 110:13,16 142:18,19 146:18 152:8 remind 4:25 rented 156:8 renting 58:8 reopening 162:13 repairing 8:12 repairs 61:18 repeatedly 114:3 replace 87:14 161:8 replaced 88:3 replacing 64:5 report 156:4 161:22 reporter 2:4,4,5 169:4,5 represent 10:4,16 10:17 representation 91:24 162:20	representations 71:7 represented 9:24 132:21 representing 59:23 req 149:23 150:1,4 167:19 request 57:17,20 58:11 149:23 requests 3:20 require 19:15 38:3 106:1 137:21 138:3 required 81:19,20 129:6 requirement 20:2 requirements 61:12 132:19 requires 56:18 requiring 61:9 reserve 72:3 reserved 35:6 45:20 46:9 residence 32:15 resident 27:19 141:25 147:4 150:4 residential 19:17 21:21 32:17 41:9,18 41:20 44:9 50:4 56:5 65:14 66:14 76:11,17 81:22 82:23 96:2 110:15 142:10,15 residents 15:8,13 27:24,25 33:7,17 35:17 60:7,10 65:6 65:7 153:21 residual 78:7 102:23 resistance 32:15 resolution 9:6 respect 72:2 respecting 41:5 respectively 80:1 response 43:5 139:23 147:1 161:11	responsibility 57:11 57:13 rest 20:10 143:16 restate 32:2 result 88:25 results 92:2 161:14 revise 59:11 revised 98:21 164:1 rf 3:3 12:1,2,9 28:7 ridge 6:14,15,18,22 7:4,13 9:14 26:3 34:17 35:12 39:23 42:5 46:23 146:5,20 150:12,13,25 right 8:21 12:8 13:14 15:2 20:1 21:20 24:1 26:12 27:6 28:5 33:8 35:10 39:10 46:8 52:17,20 54:5 55:10 57:5,25 65:13 68:10 68:14,15 70:20 72:3 73:21 78:11,14 89:5 91:22,22 95:13 96:25 97:15 102:6 103:21 104:23 112:2 114:8,10 118:1,2,3 124:18 126:6,25 127:15 130:16,20 131:21 133:1 138:15 139:5 142:21 143:5 151:23 154:17 156:9,10 158:4 159:14 160:8 ring 32:9 33:9 41:17 41:17 42:15,20,21 42:23,24 47:12 ripping 64:5 rise 158:9 risk 61:21 river 6:21 8:6 9:12 34:1,6,6 45:6,8 124:25 128:1
---	---	---	---

<p>road 1:6 2:8 4:2 6:10,21 7:2 8:6 9:12 21:11 34:1,6,6 36:10 45:6,8,21 53:24 54:4,12 55:24 56:4,22 57:2,21,23 58:1 59:12,17 60:24 61:1,6,10 62:19 64:11,12 67:11 83:21,21 116:1 125:1 126:18 128:2 135:17 140:19 142:10,17 143:12 143:14 roads 29:1 60:25 116:1 roadway 54:13,13 54:21 55:10 56:4,5 61:5 62:19 robert 1:20 romano 1:15 80:6,9 81:4 92:16,24 93:12 103:19,24 104:9 166:23 roof 84:3 130:6 room 24:10 42:7 63:18 64:24 65:1 89:18,19 154:5,6 rot 149:12 rotating 145:6 rotted 149:20 rotting 148:25 roughly 54:15 110:4 111:25 112:21,23 route 129:8 141:5 rpr 169:23 rule 147:20,21 rules 14:13 rumor 27:11 run 33:20 150:16 running 80:6 97:20 98:2 120:23 121:9 144:3 runs 34:10</p>	<p>rural 94:13,15 ruschke 1:20 rydingsvard 127:25 128:1,7,14,17,23 129:9,11,14,18,22 130:11,18 131:3,7 131:14,21</p> <p style="text-align: center;">s</p> <p>s 1:18,18 2:17 3:5,13 28:23 35:14 39:13 47:8 68:18 74:7 122:3 128:1 sac 14:19 15:24 55:11 60:9,15 64:16 64:19,24 safety 8:18,23 17:7 61:20 sakatas 102:10 salt 149:17,21 sandy 81:24 82:5 143:12 sarle 28:23,23 29:6 29:16,19 30:1,7,12 30:19 44:25,25 50:1 50:1,17,21,25 51:4 139:20,20 140:16 satisfactory 165:6 satisfied 15:16 satisfies 17:16 satisfy 20:24 84:25 saw 62:12 saying 9:9 49:15 62:24 68:1,13 96:16 103:20 109:16,20 114:6 117:10 119:17,19 126:25 128:3 129:22 150:6 150:19,20 158:8 says 46:19 98:12 99:4 132:24 136:3 149:7 scale 76:18 scans 38:19</p>	<p>scare 108:23 scared 108:20 scenario 54:3 120:12 schedule 164:8 scheduled 166:3 science 74:25 screening 146:1 screens 146:1 se 90:12 109:1 133:11 seamless 15:23,24 search 11:16 32:9 33:9 41:17,17 42:15 42:19,20,23,24 47:12 searching 40:7 seat 92:14 second 9:3,4 29:10 46:17 61:23 92:17 102:19 139:22 secretary 1:21 secretary's 31:20 section 55:9 see 13:10 17:2,18 20:22,24 26:5 31:19 31:21 34:23,25 35:2 44:16 45:15 49:5 59:20 84:2 86:13 93:2 108:21,25 133:25 143:2 149:14 154:9 158:6 159:1,16,17 163:2 166:20 seeing 83:22 89:20 seek 51:17 158:20 seeking 87:18,20,21 87:25 138:5,13 159:11,20 160:1 seen 149:19 selling 27:18 sense 18:11 117:11 senses 138:23 sent 9:23 167:15</p>	<p>separate 105:4 separating 140:13 series 6:3 71:13 73:3 serious 94:19 serve 34:12,16,24 35:7,9 74:20 service 6:23 7:9 14:10 16:14 22:3 23:15,16,19,23,24 24:4,7,8,11 29:4 31:12 37:18 47:13 143:23 servicing 81:12 session 164:6 166:8 167:24 set 3:23 78:4 105:12 105:12,22 111:16 146:8 147:5 150:2,3 152:11,13 155:22 161:18 164:5 169:12 setting 86:14 94:13 seven 69:23,23 89:25 shadow 89:22,23 shape 109:5 share 109:14 115:5 shares 113:3 shaw 1:19 5:25 11:20 14:6,23 15:2 18:12 19:8,11 20:2 22:24 28:2,10 40:8 40:17 42:11 48:9,14 52:9 57:8,12 59:6 67:1 72:8,15,21,25 79:11,21 81:14 83:8 85:15,22 87:7,18 91:11 101:2,14 117:22 146:12 148:13,19 152:24 153:4 159:6,9,20 162:22 163:7,13 164:4,16,18,21,25 165:14,20 166:2,17 166:24 167:4,6,18</p>
--	---	---	---

<p>167:23 sheet 98:7,25 146:12 shelf 149:15 shield 160:2 shiplock 84:12 shorter 160:25 shot 83:17,23 shoulder 55:25 shouting 39:8 show 29:14,16 48:6 48:7 49:22 59:11 117:22 154:1 157:10,12,13 165:8 showed 6:20 9:17 10:16 29:6,7,8,12 29:15 32:10 37:18 showing 31:5 43:6 164:2 shows 19:1 shrubbery 62:15 shrubs 64:5 shy 154:3,10 side 6:22 9:13 26:3 42:5 46:12 53:24 77:21 86:19 108:3 134:14 135:3,4,13 135:17,19 146:6 158:3,5,7,11 159:15 159:16 160:14,25 160:25 161:17 sides 7:4 76:22 77:3 84:11 135:15,23 sight 89:17,21 signal 50:22 significance 36:11 significant 13:18 14:10,14 24:3,5,18 24:22,25 25:5 36:5 84:18 113:5,11 significantly 92:19 102:9 silent 143:14 144:12 similar 75:18 122:9 123:5,16</p>	<p>simple 59:19 simply 136:9 sims 49:20,22 simultaneously 77:8 81:3 single 42:16 sir 39:21 69:19 70:4 73:19 81:17 87:24 98:3 164:3 sit 53:11 84:12 127:9 site 4:14 6:1,2,3 8:12 8:14 9:1,17,18,20 11:8,21 12:16 13:2 13:10 16:24 21:8,9 21:12,22 27:3,6,14 32:12 34:24 43:20 45:21 52:4 53:25 54:9 55:20 56:25 61:24 64:4,25 75:5 75:8,16 76:1 77:4 77:18,21 78:3,15,18 81:19 82:7,22 83:25 85:16,18,25 86:9,11 94:21 97:24 99:5,6 100:8 104:24 110:10,15,17 112:1 112:19 113:9,10,22 119:24 120:3 128:18 129:12 130:4,10 132:19 134:25 135:4,4,17 135:19,21 137:6,7 142:1,23 144:5 146:24 149:21 157:13 158:11 167:2 sites 10:18,18 75:18 130:13 sitting 97:8 99:20 115:7 116:18 127:17 situated 10:6 115:4 situation 41:3 65:9 67:7 155:15</p>	<p>situations 149:22 six 73:16 74:11 86:21 89:4,7,14 90:1,1 91:20 105:23 138:8 148:1 152:16 157:19 158:1 159:22 sleep 76:15 104:5 sleeping 108:22 slide 84:11 slight 18:10 slightly 10:16 13:7 61:8 76:19 77:11 86:6,10 89:1,3 124:6 142:25 small 6:24 69:6 78:23 smaller 95:22 smallest 104:15 snow 63:16,17 64:1 64:18,23,25 100:18 125:17 140:24,25 141:13 sold 68:20,21 solely 38:13 solid 76:24 84:13,22 85:5,11 88:19 93:16 solidified 7:5 solidify 7:3 solution 42:20 solve 11:10 47:15 somebody 12:23 36:20 37:12 63:21 149:10,20 someone's 56:13 57:4 sorry 15:8 16:18 22:13 36:17 47:5 64:9 70:4 118:20 sort 51:10 91:14 153:25 164:22 sorts 22:21 sought 32:22 sound 3:22,23,24 4:13 73:11 75:19</p>	<p>76:5,18 77:6,16,20 77:22,23 78:1,5,7 78:10,13,18 79:16 79:17,20,24 80:1,3 82:8 85:17 86:2,4,6 86:10,11 87:11 88:14,16,17 89:1 90:17,20 91:2,2,16 92:3,11 93:2,10 94:10 95:23 97:18 98:1,6,15,21 100:14 100:21 101:20 102:2,5,13,17,19,24 103:10,25 105:14 106:17,22 107:24 108:14 109:18 110:6,7 111:13 112:4,9,11,15,17,22 112:24 114:16,18 115:17,17 116:13 116:16,19 117:7,10 117:13 118:2 119:10,17,21,23 120:5,7,8,13,18,20 121:6 122:8,17,22 122:23,23 124:2,3,4 124:20,21 125:18 125:22,25,25 126:3 126:11,14,18,21,22 128:10,12,12 129:5 129:19 132:9,23 133:9,10,17,25 135:3,6,11 136:21 136:23,25 137:8,13 137:14,15 139:16 139:18 140:23 141:1,7,8,13,23 145:18 146:7 147:10,15,22,25 148:5,25 149:24 150:6,7 151:6,8,10 151:12 153:8,8,12 153:14 154:5,9,11 154:22 155:18 156:16 157:8,16</p>
--	--	--	--

<p>158:21 159:1,9 161:20 164:2 167:1 sounds 90:18 92:13 94:12 102:25 110:19 111:3 113:12,16 121:5 122:7,10,14 141:5 source 85:24 89:16 90:10 92:2 108:11 108:12,13,15 118:5 137:1 147:22 sources 101:24 102:8 117:4 126:2 south 7:18 13:6 17:16,18,25 18:3 34:11 77:10,21 78:4 109:25 134:14 135:13,13,25 146:6 southeast 13:7 space 56:22 61:16 113:19 span 148:22 speak 10:14 11:13 22:10 39:1,10,10 52:2 69:11 72:22 speaker 22:10 38:6 38:23,25 39:1 51:2 66:6,20 83:11 158:13 speaking 51:20 124:5 136:20 147:19 special 166:9 167:24 specific 61:3 117:4 157:22 specifically 6:22 157:15 specs 75:6 speculation 70:1 speculative 19:18,20 speed 5:8 41:2 56:6 80:17 129:7 141:8 spelled 73:24 spoke 140:22</p>	<p>spot 9:4 21:18 23:10 59:11 65:6,7 92:12 92:13 spots 6:10 21:10 24:24 46:3 51:12 square 21:19 46:5 135:22 stacked 145:21 stagaard 68:17,17 122:2,2 123:12 124:10,14,18 142:8 142:8,12,16,20 143:4,7,9 144:1,7 144:17 stand 114:3 120:20 standard 23:25 95:12 99:17 standards 76:8,9 99:6 standing 85:14 106:18 140:23 standpoint 12:2 17:12 55:16 61:9 85:5,10 start 4:24 72:4 74:17 89:24 91:25 102:21 123:11 149:16 167:9 started 151:17 startle 97:10 starts 18:24 63:6 92:3 state 2:6 23:4 52:5 52:16 53:8 73:20,22 85:10 95:11 96:5 109:3 138:15 165:9 169:4,24 stated 56:11 60:24 91:1 111:2 113:2 statement 36:19 111:19 165:2 statements 140:14 165:1 states 16:12,14 44:19 74:11 138:20</p>	<p>stating 106:16 station 22:22,23,24 statistical 119:23 statistically 102:12 102:17 statistics 31:15 status 34:7 statutorily 129:6 stay 27:8 93:13 104:3 118:7 136:18 staying 56:8 stays 120:10,11 121:18 stenographer's 163:8 stenographic 2:1 stenographically 169:11 stephen 1:19 stepping 5:6 stevens 53:4 stick 66:24 sticking 87:2 sticks 86:25 stockade 85:15,20 stood 94:21 103:12 103:17 110:16 112:22 125:15 stop 162:8 stops 125:6,7 stories 72:4 storm 143:13 street 2:20 4:12 55:23 57:16 61:6,12 64:16,22 65:4 67:18 150:11 streets 61:6 strict 96:9,11 stringent 76:14 structural 12:1 52:11 structure 30:9 41:15 41:19,21 43:3,21 45:4 75:23 86:15 91:13 93:18 105:13</p>	<p>105:15 107:1 148:22 structures 11:1 32:9 35:16 41:7,11 42:1 42:1 44:8 studies 108:16 109:1 109:9 156:11 study 145:2 stuff 41:1 style 1:15 22:14,20 59:20 93:24 94:2 145:15 subject 73:1 subjective 14:25 16:1 18:11 20:9 36:12,25 submission 156:14 submit 164:14 submitted 43:17 156:1 157:10,11 164:15 submitting 98:24 156:4 subsequently 48:15 substantial 14:4 18:8,14 20:5 65:17 113:2 136:25 substantially 20:15 20:19 21:5 suburban 44:9 94:15 96:6 success 84:18 successfully 84:16 165:11 sudden 71:1 79:20 suggest 164:8 166:19 suggested 122:5 suggestion 71:17 suggestions 133:22 summarize 137:11 summary 31:11 summer 80:10 136:21 141:4</p>
---	---	---	---

<p>summertime 102:9 summit 6:1 9:1 13:1 19:7,8,14 47:11 sunday 136:5 sunset 39:16 45:8 superstorm 81:24 82:4 superstorms 65:11 supplement 161:13 supplemental 9:23 supposed 5:10 16:11 28:5 35:23 42:11 61:14 87:7 114:7,8 118:19 166:15 supreme 14:17 sure 6:19 10:3 22:13 22:20 29:19 33:14 37:23 38:21 50:19 53:3 56:16 58:2,12 61:17,21 62:1 72:21 73:14 75:9 82:3,20 90:6 104:12 107:6 121:25 123:10 133:14,24 137:16 138:2 140:13 141:3 145:1 148:20 150:6 152:22 153:10 162:6 163:10 surprised 95:3,4 120:16 surrounding 99:20 161:4 surrounds 85:16 survey 44:19,22 surveys 44:16 suspect 167:10 sustained 81:21 swear 52:22 73:25 swing 3:23 105:12 105:12,22 111:16 146:8 150:2,3 152:11,13 switch 97:21 sworn 5:2 165:25,25 169:7</p>	<p>system 10:24 15:7,9 21:5 93:21 144:16 systems 16:10,10,11</p> <hr/> <p style="text-align: center;">t</p> <hr/> <p>t 1:18 2:21 3:8,13 5:4 10:19 26:2 35:5 40:22,22 43:12 45:13,20 46:9 53:19 68:18 75:3 76:25 122:3 169:1,1 take 8:9,17 48:20,21 49:4,7 52:12 54:4 54:16 63:25 69:5 73:3,12,16 84:22 90:9 102:1,18,19 114:9 132:20 163:22 164:18 taken 2:2 48:20 50:6 67:13 73:17 104:19 124:20 169:11 takes 101:25,25 talk 4:14 6:5,16 12:24 14:13 17:4 20:8 21:22 34:10 94:5 98:8,9 100:15 112:11 116:10 123:24 152:11 talked 145:15 146:19 148:9 talking 6:17 8:23 23:7 26:8 27:13 34:9,21 35:15 41:1 62:19 63:7,9,21 64:4,7 65:11,21,24 66:1 67:8 68:9,10 78:23,25 79:8 80:3 86:14 90:25 107:17 111:24 115:2 116:16 122:10,20 123:13 135:21 141:10,18 144:22 146:15 147:18 157:21</p>	<p>tall 77:2 87:6 88:8 89:5,8,15 91:20 107:8,11,23 153:16 158:6,8,9 taller 160:25 tallest 89:25 tangent 55:9 tank 6:9,18 7:3 21:15 30:16 34:12 49:14 54:5 71:5,18 82:23 108:21 tanks 12:5 tape 107:8 tapes 31:24 taxes 27:24 65:17 technician 53:22 57:25 technology 53:5 telecom 109:2 139:18 telecommunications 15:22 20:3,4,13 21:1 109:2 telephone 21:25 tell 25:9 52:22 54:7 56:19 68:16 73:25 80:23 94:21 103:12 106:22 107:21,22 108:19 118:20 127:17,20 132:17 149:3 151:21 telling 132:15 tells 25:25 temperature 80:20 81:13 119:12 temperatures 136:16 temporary 26:1,9 26:17,22 27:3 64:7 82:3 143:22 ten 61:5 98:24 100:23 102:22 111:13 112:21 tenant 19:19</p>	<p>tend 92:4 tends 141:9 157:1,3 tension 7:12,17 8:16 tenth 89:9 term 36:12 48:10 124:14 terms 20:9 30:10 54:13 61:11 62:5 63:2 81:14 88:16 97:10 105:5 107:12 108:6,17 114:14 131:5 test 149:1 161:14,22 161:24 tested 130:16 testified 6:12 21:7 32:3 45:19 48:2 53:8,13 74:16 91:8 110:22 111:18 112:3 116:15,21 119:11,15 126:10 126:20,23 134:13 134:15 139:4,8,11 140:9 144:6 148:4 152:13 162:12 testifies 162:15 testify 25:15 35:21 104:21 121:24 131:2 132:12 134:6 150:5 162:3 169:7 testifying 5:3 35:21 130:22 132:2 147:15 testimony 4:9 5:12 10:1 11:7 18:13,16 20:7 24:14 25:2,17 28:7 42:12,14 48:1 62:10 67:18,22 68:9 73:1 74:12 99:22 105:9 111:3 138:24 139:1 140:3,15 156:4 164:15,16,18 165:25,25 169:10 testing 114:14 161:13,22</p>
--	---	--	--

tests 161:16 thank 18:9 25:22 28:20 33:25 34:14 40:3 42:10 44:24 52:8 73:5,10 75:2 101:15 104:25 106:20 109:11 122:1 134:2,7,12 139:2 142:6,7 157:5 157:6 162:5 166:1 thanks 109:10 their's 29:10 thick 77:1 82:10 84:24 85:2 thickness 145:22 thing 14:15 37:19 47:14 58:15 60:3 75:14 77:18 82:25 99:9 122:25 143:9 152:12 things 11:2 55:20 58:10 61:13 63:4 64:12,20 65:10 67:23 92:1 123:4,7 130:7 146:9 154:19 think 12:14,20 13:4 15:4 18:12 22:4 23:17 25:3 27:1 30:20,25 35:19 36:11 42:9 49:19 50:10,25 60:2 61:15 62:13 64:9,14 67:14 69:10 70:17 74:22 88:13 90:6 94:24 96:1 97:11,20 100:12 101:9 102:25 103:1 112:3 113:1,2,4,5 122:14 123:6,7 131:10,14 132:25 133:2,3 134:5 139:21 140:2 151:15 153:4,20,21 155:5,9,11 156:13 158:2 161:5 162:19 163:22 165:1	thinking 51:18 58:23 thinks 150:7,20 third 23:12 25:3 81:1 thirds 112:23 thomas 1:14 thoroughfare 16:5 thought 12:23 51:10 62:14 87:17 103:15 103:16 112:25 113:11 124:8 147:13 151:17 160:17 167:8 three 13:11,14 26:6 36:13 43:8 45:7 47:18 51:7 55:21,24 56:12,20 78:21 84:23 85:16 104:7 106:2 111:11 117:12,17,18 120:25 121:5 139:9 139:14 153:17 162:25 threshold 20:1,23 156:17 throw 98:11 144:11 thumb 147:20,21 thursday 2:9 136:2 136:3 163:16 166:6 time 3:25 4:6 6:8 8:5 11:12 23:17 28:13 32:18 33:3 39:11 42:10 43:12 63:18 73:3 76:11 77:22 81:12 108:22 118:25 119:2,4 122:21 130:19 133:4 136:8 147:20 165:11 167:19 169:11 times 25:1 46:17 122:6 126:16 130:23 132:24 141:4	timing 167:13 tina 1:15 tiny 14:21 tire 15:18 today 87:25 132:12 today's 83:8,16 told 40:5 114:2 157:24 tomorrow 40:8 167:22 tonight 41:4 88:6 129:4 147:12 162:12 tony 1:13 tool 43:19,19,24 44:11,14 112:19 tools 43:14 top 34:3 39:23 46:22 49:4,16 82:16 84:12 88:17 89:14 90:3,7 104:1 105:20 107:10 153:14 157:20 topography 44:8 114:13 115:14 total 104:7 112:13 120:18 totally 68:23 143:14 161:5 tower 3:16 8:6,12 9:4,9 10:2,6 11:11 12:16 13:1 15:15,15 19:7,8 21:18,23 22:14,15,18,19,21 26:1,2,17,17,22 27:2 29:9,11 30:3 30:11,13,17 31:2 32:6,14 33:13 34:3 34:3,5,8 35:4 37:18 39:18,21 42:16 45:8 45:13,20,20 46:8 47:10,10 48:3,7,24 49:16 51:11,16 52:11 55:18,20 57:9 66:4,10,16,19,20	68:25 69:7 71:15,19 75:23 76:23 77:4,21 78:5,15 83:20,23,24 86:25 101:12 104:24 109:14 114:22 115:5,6,8,10 140:16,19 142:15 144:2,18 150:12 154:20 155:6 156:9 tower's 160:15 towers 5:15 6:13,21 7:8,17,22,24 8:7,16 11:4,6 12:5 19:14 26:9 29:24 30:4,6 30:12 33:2 35:16,18 39:15,16,20 42:17 52:1,5 town 27:12,17,23 35:17 40:13,25 60:15 61:11 132:19 143:11 145:24,24 township 1:1 2:6 3:17 56:18 71:6 82:4 83:20 140:18 143:17 155:8 159:18 tracey 68:17 142:8 trade 92:5,8 traffic 4:11 25:16 52:15 53:17 57:25 64:11 65:8 67:1,2 68:10 69:10,17 70:6 73:7 116:1 136:11 trailer 62:2 144:5 transcript 1:5 2:1 169:10 transcripts 5:8 31:24 40:6 162:25 163:5,7,8 transmission 6:13 6:21 27:2 transportation 53:5 travel 16:13 56:1,17 61:5,15 62:18
--	--	--	--

<p>traveling 40:25 treated 71:22 84:7 tree 48:4 49:1 50:9 trees 44:9,9,17 49:2 49:8,17 50:2,6,10 50:13,14,21 122:12 136:22 137:1,5,5 tremendous 41:6 tremendously 82:5 tried 125:16,17 troy 83:21,21 140:19 142:9,17 truck 61:21 62:16 121:15 trucked 72:10 trucks 61:17,19 72:4 121:9 true 32:16 51:13 150:23 169:10 trunks 145:22 trust 108:25 truth 52:23,23,23 74:1,1,1 169:8,8,8 truthfully 143:16 try 47:21 61:4 80:21 117:19,24 125:14 136:18 154:3,10 trying 16:25 17:21 24:11 25:4 36:1 37:1 38:9 41:2 55:1 59:13,14,15 60:18 65:5 92:14 106:25 117:6,15 121:1,2 122:4,23 140:3 151:15 161:1 tsimboukis 1:21 tunnels 22:9 turn 15:12 89:19 turned 57:24 165:21 twice 116:11 154:22 two 27:20 29:2 32:10 35:2 60:11 61:4,5 77:8 92:1 102:3 112:23 122:10,13,13 123:3</p>	<p>139:9,12 140:14,14 143:24 146:9 148:21 149:1 151:3 154:24 161:16 164:9 166:18 type 62:2 76:25 83:24 85:2,17 107:15 108:17 133:10,17 137:14 145:6 types 44:7 62:21 75:18 78:21 109:7 typical 94:14 102:4 typically 136:7 156:24</p> <hr/> <p style="text-align: center;">u</p> <hr/> <p>u 30:22 39:13 73:24 ultimately 6:25 unable 40:7 unavailable 46:8 underneath 125:17 157:19 understand 11:5 24:19 25:5 38:9 42:4 44:5 59:5 86:25 103:11 109:15 117:8 119:16 121:13 132:3 134:22 151:4 154:21 160:5,10 understood 71:24 unfortunately 65:3 unidentified 22:10 38:6,23,25 39:1 51:2 66:6,20 83:11 158:13 unique 11:7 21:22 uniquely 10:2,6 unit 90:22,22 111:4 111:5,11 122:16 139:24 140:7 united 16:12,14 44:19</p>	<p>units 120:23 121:15 university 53:6 unmanned 98:13 unnatural 111:25 unobtrusive 60:6 unserved 6:25 unusual 58:15 64:19 64:21 update 8:25 updated 59:7 upset 27:25 upstairs 92:17 urban 95:18 ursula 127:25 use 10:25 19:15 21:8 22:11,15 29:12 41:6 43:20 44:18 54:17 70:2 71:10,15 76:10 89:17 113:19 useful 152:12 users 15:3,7 uses 6:1 19:16 usually 8:8 30:12</p> <hr/> <p style="text-align: center;">v</p> <hr/> <p>v 1:14 52:19,19 128:1,1 vacation 166:13 value 123:5 139:13 values 28:1 124:23 139:12 van 27:17 30:23 54:18 140:21 vantage 106:9 variance 19:15 66:3 66:7 87:19,20,21 137:21 138:4,6,7,9 138:11,13 158:14 158:20 159:11,21 159:23 160:2,10 varied 56:19 varies 19:3 54:14 158:3,4 various 54:12 62:21 63:4</p>	<p>vary 82:5 135:7 vegetation 137:1 146:3 vehicle 54:11,16,20 54:23 55:2,6,13,23 56:1,8 57:1,15 63:9 vehicles 4:13 54:22 54:25,25 55:14,19 56:3,5,24 57:24 58:2 59:18 62:22 63:25 verify 80:17 verizon 9:3 10:18 29:10 37:21 versus 6:18 17:7 29:21 105:5 125:9 135:4 136:21 vibrations 98:14 vicinity 86:9 91:15 96:24 100:13 124:7 147:6 148:5 156:18 video 164:14,16,20 165:9 videos 164:23 165:1 165:18 videotapes 165:15 view 14:1 49:9 165:18 violation 20:4 virtually 85:23 virtue 85:19 visit 53:25 113:9 visitation 53:22 visited 54:9 77:18 visiting 113:10 vivona 1:13 4:1,4,23 5:5,13 7:5,8,11,20 9:8 19:6 21:10,15 21:24 22:6,18,25 25:11 27:15 28:21 31:23 32:1 36:17 39:7,21 40:2 43:9 49:13,25 50:18 51:5 52:22 53:1,13,18 56:11 57:3,7,10</p>
--	---	---	---

<p>60:1,19 62:7 64:14 64:21 65:3,18,21,24 66:24 69:9,15 70:4 70:9,19 73:6,12,15 73:18,22,25 74:4,22 75:1 78:19 79:2,5 82:20 88:7 89:4,7 90:3,13 91:1,5 104:25 105:7 124:19 131:19,23 144:11,21 153:24 159:22 160:1,8 161:3 162:7,17,19 163:6,12,17,23 164:19 168:2 voice 38:24 void 6:25 volumes 61:7 von 127:25,25 128:7 128:14,17,23 129:9 129:11,14,18,22 130:11,18 131:3,7 131:14,21</p>	<p>147:14 148:11 150:18 151:5,9,11 153:9 158:23 159:1 161:9 164:22 166:5 wanted 15:23 65:14 77:13 133:7 149:23 152:24 166:4 wants 68:6 113:19 132:10 150:15 163:2 warm 141:4 water 3:16 6:9,18 7:3 8:14,18 10:2,5 12:5 21:15 30:3,4 30:16 34:5,12 39:18 48:3,7,24 52:1,5,11 54:5 55:18,20 66:4 66:16,18,20,22,23 69:7 71:4,4,5,8,11 71:15,19 75:23 76:23 77:4,21 78:5 78:15 82:23 83:20 83:23,24 86:25 104:24 108:21 109:14 115:5,6,8,9 140:19 142:15 154:20 155:6 156:9 160:15 waves 11:2 35:22 115:17 way 8:13 10:24 11:20 15:9 38:18 42:5 50:6 51:1,15 51:23 55:10 57:23 60:16 61:5,15 62:18 62:25 63:2,3 64:3 69:5 71:25 84:17 93:12 96:7 100:9 109:5 122:24 123:5 125:12,24 130:5 141:20 143:2 154:14 155:7,13 we've 33:1 70:7 88:18</p>	<p>weather 65:10,12 136:13 140:25 141:7,19 website 40:15 163:2 wednesday 166:9 week 63:15 136:13 weekday 54:1 weekends 136:8,10 136:19 weeks 53:23 59:4 weighing 36:5 weight 12:1 weighted 76:18 weisgerber 35:13,13 35:25 36:4,20 37:1 37:9,14 39:4 47:7,7 47:17,23 105:11,11 105:17,19,22,25 106:15,20 109:12 109:12,20 110:2,9 110:19,25 111:8,21 111:24 112:8,18 113:24 114:7 132:1 132:1 133:5,12,15 133:21 134:2 157:7 157:14,21,25 158:5 158:15,17,19,25 159:4,8,14,24 160:5 160:9 163:15,18 weisgerbers 154:17 welcome 36:19 went 5:24 9:2 17:9 26:23 31:4 32:7,10 33:22 54:9 57:22 58:5 62:12 64:4 83:3 94:21 103:12 103:17 116:7 125:15 126:15 149:5 west 75:21 76:3 77:9 93:6,6 134:23 135:7 140:10 147:2,24 148:17,19 western 9:13</p>	<p>weston 1:16 9:25 11:5,17 82:8,12,15 86:12,20 91:13 whatnot 125:5 whispering 114:17 115:19 white 6:10 13:11 14:2,9 16:20 17:24 18:4,20 19:1 20:22 20:24 21:10 22:1 23:5 24:24 26:6 28:25 36:21 46:3 wide 54:19 55:25 56:19 63:8 67:18 106:24 wider 61:10 106:24 widest 54:19 width 54:13,22 56:17 61:1,10 64:12 107:16 widths 60:24 wife 69:22 132:25 133:2,3,3 wildlife 108:18 115:24 156:7,12,18 william 1:15 willing 33:16 wind 84:25 122:11 125:4,6,19 windmills 157:2 window 94:17 140:10 windows 25:7 96:17 103:6 113:18 winds 136:15 winter 60:24 61:2 63:11,13 64:19,21 80:10 120:6 136:14 136:21 wintertime 100:18 wired 16:9 wireless 1:5 2:22 3:15 4:1 15:7,9 16:10,10 83:19</p>
w			
<p>w 30:22 35:14 47:8 84:5 wait 35:20,24 67:24 99:10 walk 36:9,10,21,24 walking 135:1 wall 88:17 91:23 95:22 153:17 walls 82:16 want 5:18 14:1 17:1 28:12,18 31:19 45:3 46:19,24 48:10 51:11 55:7 58:21,24 60:5 70:16,19 76:15 93:23 96:2,3 97:6 104:19 111:19 112:10,12,18 116:9 116:12 121:24 127:1 138:1 140:13 143:15 145:1</p>			

<p>wires 7:12 witness 3:2 5:23 6:19 7:7,10,16,23 8:2,4,15,22 9:11,19 9:22 10:14 11:3,13 12:4,8,17,19 18:21 19:5,10 22:5 23:8 23:11,21 24:1,4 26:8,12,15,19 27:7 27:10 28:6 29:3,14 29:18,22 30:5,9,15 31:4,8,11,16 33:1,4 33:8,21 34:9,18,22 35:2,11 36:23 37:7 37:23 38:4,11,18 39:2,5,19 41:22,25 42:19,24 43:10,17 43:23 44:1,6,13,18 44:23 45:5,19 46:3 46:7,25 47:16,21,24 48:5 49:2,8,24 50:10,16,23 51:5 52:15 56:15 61:3,25 62:18 63:1,12,15 67:2,7,10 69:18 70:11 73:8,9,11,18 73:23 76:21 78:21 79:4,7,14,23 80:8 80:14 81:9,17 82:11 82:14,17 83:13 85:13,20,23 86:18 87:4 88:9 89:6,10 90:5,16 91:4,7,12 91:18 92:18 93:1,14 94:1,4,9,14,18,20 95:1,6,9,16 96:11 96:19,24 97:4,6,10 97:15 98:3,18 99:17 99:24 100:7,12 101:5,15,19,23 102:7,12 103:1,3,8 103:22 104:4,11 105:3,16,18,21,24 106:10,19 107:2,5 107:20 108:2,8,19</p>	<p>109:11,19,22 110:5 110:12,22 111:1,18 111:23 112:3,9 113:23 114:18,24 115:11,20,24 116:5 116:9,24 117:1,3,14 117:19,24 118:11 118:14,18,21,24 119:1,10,14,21 121:13,20,24 123:10,19 124:12 124:16,21 125:11 126:7,10 127:3,7,13 128:6,9,16,19,25 129:13,16,20 130:2 130:17,20 131:5,10 131:16,25 133:8,14 133:16,24 134:7,12 134:18,22 136:6,24 137:10,16,19,23 138:1,16 139:1,6,11 140:2,18 141:2,17 142:3,7,11,14,18,22 143:6,8,20 144:4,9 145:5,11,13,19 146:9,22 147:19 148:17,20 149:3 150:9,13,15,24 151:9,15,20,25 152:6,15,22 153:2,6 153:23 154:3,24 155:21 156:2,15,23 157:6,17 161:12 162:9 witnesses 28:12 166:8 169:7 wonder 30:25 32:4 wondering 10:5 11:6,19 26:4 27:22 58:15 109:9 114:13 117:8 134:19 136:4 146:20 151:24 wood 84:7 85:12,13 87:15 88:3 149:12</p>	<p>woodcliff 53:12 wooden 76:24 84:3 85:7 148:22 160:6 word 69:25 108:4 114:9 124:17 words 81:21 84:9 129:7 145:8 155:22 work 15:12 16:11 22:3,7 27:17 32:11 33:20 35:22 39:3 72:12 80:13 131:1 164:5 166:8 167:24 worked 131:11 working 144:19 works 15:10 51:15 worry 66:15 worst 120:12 121:12 136:14 worthwhile 156:14 wrestling 122:11 writing 59:20 written 156:4 163:5 163:6,7 wrong 49:24 99:4 108:4 118:23 131:13 wu 30:22,22 31:9,14 31:18,22,25 32:4,13</p> <p style="text-align: center;">x</p> <p>x 3:1,13 5:4 53:19 75:3 84:22</p> <p style="text-align: center;">y</p> <p>y 39:13 43:12 84:5 128:1 yard 69:6 92:12 114:3 116:15,19 122:18 yeah 31:14 110:17 151:12 year 63:18 149:6 years 23:14,15 27:19,19 68:20 84:15 103:4 130:21 131:12 148:24</p>	<p>149:1,9,15,18 155:5 young 127:4 yvonne 3:3 4:25 5:2 6:5 9:15 10:23 18:18 23:5 46:21 48:1,7 51:6 yvonne 21:7 33:18 yvonne's 42:14</p> <p style="text-align: center;">z</p> <p>z 98:4 z01 146:14 z02 144:25 146:10 zone 89:22,24 zoned 19:21 65:14 66:13 zoning 1:2 66:21 86:20 138:18</p>
--	---	--	--